

February 28, 2000 NG-00-0319 IES Utilities Inc. Duane Arnold Energy Center 3277 DAEC Road Palo, IA 52324-9785

Office: 319.851.7611 Fax: 319.851.7986 www.alliant-energy.com

Office of Nuclear Reactor Regulation U. S. Nuclear Regulatory Commission Attn: Document Control Desk Mail Station 0-P1-17 Washington, DC 20555-0001

Subject:

**Duane Arnold Energy Center** 

Docket No: 50-331

Op. License No: DPR-49
Inservice Inspection Report

File:

A-107a, A-286a, B-31c, SpF-118

In accordance with the requirements of Paragraph IWA-6230 in Section XI of the ASME Boiler and Pressure Vessel Code and 10 CFR Section 50.55a(g), IES Utilities herewith submits the refueling outage (RFO) 16 inservice inspection summary report (Attachment 1). This report addresses examinations which were performed at the Duane Arnold Energy Center (DAEC) during the time period from May 23, 1998 through December 1, 1999.

Attachment 2 provides information regarding augmented inservice inspections performed during RFO 16. These inspections include those performed for NUREG-0313, Revision 2, "Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping" and Bulletin 80-13, "Cracking in Core Spray Spargers."

IES Utilities' review of the inspection reports has determined that all examined items are acceptable. These inspection reports are on file and are available for your review upon request.

February 28, 2000 NG-00-0319 Page 2

Should you have any questions regarding this matter, please contact this office.

Sincerely,

Kenneth E. Peveler

Manager, Regulatory Performance

Attachments: 1) ASME Section XI Summary Report

Duane Arnold Energy Center Refueling Outage 16

2) Augmented Inspection Results RFO 16

cc: C. Rushworth (w/o Attachments 1 and 2)

E. Protsch (w/o Attachments 1 and 2)

D. Wilson (w/o Attachments 1 and 2)

G. Van Middlesworth (w/o Attachments 1 and 2)

B. Mozafari (NRC-NRR)

J. Dyer (Region III)

NRC Resident Office

ANII (w/o Attachments 1 and 2)

Office of Labor Commission (State of Iowa) (w/o Attachment 2)

**DOCU** 

25 Years of



Rock Solid Performance

ASME Section XI Summary Report

Duane Arnold Energy Center

Refueling Outage 16

(Period 1)

May 23, 1998 through December 01, 1999

### DUANE ARNOLD ENERGY CENTER

UNIT #1 PALO, IOWA

Commercial Service Date: February 1, 1975

THIRD TEN YEAR INTERVAL INSERVICE INSPECTION SUMMARY REPORT

May 23, 1998 through December 1, 1999

Dated: December 1, 1999

OWNER:

IES UTILITIES INC., AN ALLIANT COMPANY

P.O. Box 351

Cedar Rapids, Iowa 52406

Prepared by:	ASME/NDE Specialist	Date:
Reviewed by:	NDE Level III	Date:/2.4 / 40
Reviewed by:	Program Engineering Staff	Date: <u>/- 24-00</u>
Reviewed by:	Kend. Scheell Equipment Monitoring Group, Team Leader	Date:
Concurred by:	Supervising Engineer, Program Engineering	

May 23, 1998 through December 01, 1999

### TABLE OF CONTENTS

PART	DESCRIPTION	PAGE NO.
A	Form NIS-1	pages 1-2
В	Certificate of Inservice Inspection	pages 1-3
С	Abstract	page i
D	Table of Component and Weld Examination Identification Records	pages 1-4
Ε	Table of Additional and Successive Examinations Identification	page I
	Records	
F	Abstract of ASME Section XI Repairs and Replacements	pages 1-2
G	Form NIS-2's	pages 1-80
Н	Abstract of Conditions Noted and Corrective Measures Taken	page i
I	ISI Figures and Isometrics	pages 1-45
j	Status of Work for Second Ten Year Interval	pages 1-4
K	Listing of Relief Requests and Code Cases Utilized	page 1

THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT May 23, 1998 through December 01, 1999

This page intentionally blank

Part A, Page I of 2

# FORM NIS-1 OWNER'S DATA REPORT FOR INSERVICE INSPECTIONS As Required by the Provisions of the ASME Code Rules

1. Owner: IES Utilities inc., an Alliant company, P. O. Box 351, Cedar Rapids, IA 52406	(Note 2)
(Name and address of Owner)	
2. Plant: Duane Arnold Energy Center, 3277 DAEC Road, Palo, IA 52324	
(Name and Address of Plant)	
3. Plant Unit 4. Owner Certificate of Authorization (if required)	N/A
5. Commercial Service Date 02/01/75 6. National Board Number of Unit	N/A
7. Components Inspected	
This report includes a Table of Contents (P1), Part A (PP1-2), Part B (PP1-3), Part C (P1), Part D (PP1-4), Part E (P1), Part F (P1-2), Part G (PP1-80), Part H (P1), Part I (PP1-45), Part J (PP1-4), and Part K (P1).	

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Reactor Pressure Vessel (RPV)	Chicago Bridge & Iron	3-4833	N/A	3663
Refer to Part	B, Pages 1-4, of this	report for a contin	uation of componer	nts examined
	<u>·</u>		:	

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8.5 X 11 inches, (2) information in items 1 through 6 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

May 23, 1998 through December 01, 1999

Part A, Page 2 of 2

### FORM NIS-1 (back)

8. Examination Dates	05/23.'98 to	12/01/99	9. Inspection Interval from	11/01/96	to <u>12/01/05</u>
10. Abstract of Examin for current interval.	ations. Include a	list of examin	nations and a statement conc	erning status of	work required
Refer to Pa	rt C, Part D, ar	nd Part J.			
11. Abstract of Condition Refer to Pa					
12. Abstract of Correct	ive Messures Des		. 2 00.0.		
Refer to Par		ommended ai	id laken		
We certify that the state conform to the rules of	ements made in the ASME Code.	is report are of Section XI.	correct and the examinations	and corrective I	neasures taken
Date FEB 7,	2000		<u> </u>		no mag
Signed Land Par	Mulel	léxast	By Gary Van N	Middleswa	ith Site General
Certificate of Authoriza	tion No. (if annii	cable)	Caratina	ion Date	,
-	aton 110. (II appir		Expirat	ion Date	
	CEDTIE	CATEOEU	NSERVICE INSPECTION		The Largest Control of
	CERTIFI	CALEOFI	15ERVICE INSPECTION		e, singer or the day
Inspectors and/or the Si inspected the componer state that to the best of	ate or Province on the described in the my knowledge a	f Iowa and ones of the Iowa and ones of the Iowa and Iowa	ed by the National Board of employed by Hartford Boi lata Report during the period c Owner has performed exam accordance with the requi	ler Co. of Han 05/23/98 to initiations and ta	tford CT have 12/01/99, and
concerning the examin	ations and correct or his employer si	ctive measure hall be liable	his employer makes any wa is described in this Owner's in any manner for any perso is inspection.	Data Report.	Furthermore.
Date 2/18/	2000.				
	7/				
JE	4		Commission	ns/1872 ANI	,1422.F4
Inspector's Sig	gnature			oard, State, Pro-	

Note 1: As per letter NG-89-3390, the ASME Section XI "Vesseis," RHR Heat Exchangers 1E-201A and 1E-201B and the Reactor Vessei are excluded from the Summary Report to the State.

Note 2: Other owners are Central Iowa Power Cooperative and Corn Belt Power Cooperative.

May 23, 1998 through December 01, 1999

Part B, page 1 of 3

1) Owners: IES Utilities Inc., an Alliant company

P.O. Box 351 Cedar Rapids, IA: 52406 Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA. 52324

3) Plant Unit: #1

Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

## CERTIFICATE OF INSERVICE INSPECTION

### COMPONENTS EXAMINED:

### Reactor Pressure Vessel:

Manufacturer:

Chicago Bridge and Iron Post Office Box 13308

Memphis, TN 38113

National Board Number 3663, Mfr. Serial Number 3-4833

Refer to Part A, Page 1, form NIS-1, Owners Data Report for Inservice Inspections.

#### Piping:

Manufacturers, sizes, part numbers and locations are noted and traceable through the piping isometric and piping instrumentation drawings (P&ID). Installation contractor, fabricator, systems P&ID's and Isometric drawings are listed below.

### Constructor:

Bechtel Power Co. P.O. Box 3865 San Francisco, CA 94119

### Fabricator -

Southwest Fabricating and Welding Co. P.O. Box 9449
Houston, TX 77011

May 23, 1998 through December 01, 1999

Part B, page 2 of 3

1)	Owners: IES Utilities Inc., an Alliant company P.O. Box 351 Cedar Rapids, IA. 52406	Central Iowa Power Cooperative Marion, IA.	Corn Belt Power Cooperative Humbolt, IA.
2)	Plant: Duane Arnold Energy Center, Palo, IA. 5	2324 3) Plant Uni	ic: #1
4)	Owners Certificate of Authorization (if required):	N/A 5) Commerc	cial Service Date: 02/01/75
6)	National Board Number of Unit: N/A	Gross Gener	ating Capacity: 565 MWE

## CERTIFICATE OF INSERVICE INSPECTION

### **COMPONENTS EXAMINED:**

CLASS 1				
Component	Iso No			
VESSEL STUD AND LIGAMENT	1.1-05			
CRD Figure	1.1-08B			
Feedwater 'A' and 'B'	1.2-05			
Core Spray 'A'	1.2-07			
Core Spray 'B'	1.2-08			
RWCU Suction (CLEAN)	1.2-11B			
CRD Return	1.2-12AB			
RHR-18B	1.2-14			
RHR-20B	1.2-16			
RCIC-Water	1.2-18			
Recirculation Pump 'A' and Discharge Valve By-Pass	1.2-19A			
Recirculation Manifold 'A' and Risers E, F, G, H	1.2-20			
Recirculation Pump 'B' and Discharge Valve By-Pass	1.2-21A			
Recirculation Manifold 'B' and Risers A,B,C,D	1.2-22			
Reactor Head Vent	1.2-24			
Standby Liquid Control	1.2.27			
Reactor Vessel Instrumentation N-12B	1.2-31			
Bottom Head Drain	1.2-32			
Recirculation Pump 'B'	1.3-03			

May 23, 1998 through December 01, 1999

Part B, page 3 of 3

Owners: IES Utilities Inc., an Alliant company
 P.O. Box 351

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Humbolt, IA.

Cedar Rapids, IA. 52406

2) Plant: Duane Arnold Energy Center, Palo. IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required) N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

#### CERTIFICATE OF INSERVICE INSPECTION

#### **COMPONENTS EXAMINED:**

IVVI	
Component	Iso No
Top Head Assembly	VS-01-06
Guide Rod Bracket	VS-01-28
Jet Pump Riser Support Pad	VS-01-34
Ledge Segment Plates	VS-02-11
Core Plate	VS-03-02<1>
Top Guide	VS-04-01
Sample Holder	VS-10-02
Dry Tube	VS-13-02

CLASS 2				
Component	Iso No			
RHR Heat Exchanger	2.1-01			
RHR Pump Shutdown	2.2-34			
RHR Heat Exchange Discharge (SE)	2.2-37A			
RHR Heat Exchange Discharge (SE)	2.2-37B			
RHR Pump Discharge (NW)	2.2-39			
RHR Heat Exchanger Discharge (NW)	2.2-40			
RHR Fuel Pool Cooling & Clean-up	2.2-43			
HPCI Pump Suction	2.2-44			
HPCI Turbine Steam Inlet	2.2-46			
HPCI Turbine Steam Exhaust	2.2-47			
Core Spray Discharge (SE)	2.2-49			
Core Spray Suction (NW)	2.2-51			
Main Steam Loop 'D'	2.2-56			
Main Steam Bypass	2.2-57			
Scram Discharge Header (S)	2.2-60			

THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT May 23, 1998 through December 01, 1999

This page intentionally blank

May 23, 1998 through December 01, 1999

Part C, page i of i

Owners: IES Utilities Inc., an Alliant company PO. Box 351

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Cedar Rapids, IA, 52406

Plant: Duane Arnold Energy Center, Palo, IA, 52324

Humbolt, IA.

3) Plant Unit: #1

Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

#### CERTIFICATE OF INSERVICE INSPECTION

#### **ABSTRACT:**

The Inservice Inspection addressed in this report was performed in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI 1989 Edition, No Addenda, and the Duane Arnold Energy Center Updated Final Safety Analysis Report. The inspections were performed utilizing Non-Destructive Examination Techniques (i.e., UT, PT, MT, etc.). The examinations were conducted during the period of May 23, 1998 through December 1, 1999. The specific details and associated records of the examinations are on file at IES Utilities Inc.

THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT May 23, 1998 through December 01, 1999

This page intentionally blank

May 23, 1998 through December 01, 1999

Part D. page 1 of 4

Owners: IES Utilities Inc., an Alliant company
 P.O. Box 351

Cedar Rapids, IA, 52406

Central Iowa Power Cooperative Marion, IA.

Com Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnoid Energy Center, Palo, IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

## COMPONENT AND WELD EXAMINATION IDENTIFICATION RECORDS

			ASS 1				
Component	Decorinsis -	ISI			ASME XI		
Reactor Vessel	Description	Report	Examination	ISI Iso	Category	Resuits	
reactor vesses	HCC-B002	199110	UT0	VS-01-06	B-A	Accepted	
			UT45				
DDI/G/ IDI			UT60				
RPV Stud/Nut and	CLSR HD-LGMNTS	199001	U <b>T0</b>	1.1-05	B-G-I	Accepted	
Ligaments	(1-20)					· iocopioc	
	CLSR HD-NUTS	199002	VT-1	1.1-05	B-G-1	Accepted	
	(1-20)				20.	Accepted	
	CLSR HD-STUDS	199003	U <b>T0</b>	1.1-05	B-G-1	A coented	
	(1-20)			05	D-0-1	Accepted	
	CLSR HD-WSHRS	199004	VT-1	1.1-05	B-G-1	A 1	
	(1-20)			1.1-05	D-0-1	Accepted	
Control Rod Drive	1R215(26-15)	199149	VT-1	1.1-08	B-G-2		
	IR215(14-31)	199150	VT-1	1.1-08		Accepted	
Core Spray	CSA-D001				B-G-2	Accepted	
Core Spray	C2Y-D001	199010	UT0	1.2-07	B-D	Accepted	
			UT45			-	
	001 2001 22 27		UT60				
	CSA-D001-INNER	199011	U <b>T70</b>	1.2-07	B-D	Accepted	
	RAD					•	
	CSA-F002A	199013	PT	1.2-07	B-F	Accepted	
			UT45				
	CSA-F004	199014	PT	1.2-07	B-F	Accepted	
			UT45			····	
Reactor Water	CUB-F004	I99016	PT	1.2-11B	B-F	Accepted	
Cleanup			UT45		٥.	Accepted	
	CUB-K012	199026	VT-3	1.2-11B	F-A	Accepted	
Control Rod Drive	CRA-J003	199029	PT	1.2-12A	B-J		
Return			•	1.2-14.0	D-1	Accepted	
RHR-18B	RHB-J012	I99124	MT	1.2-14	D 1	A ·	
		1 <del>4 1</del>	UT45	1.2-14	B-J	Accepted	
RHR-20B	RHD-J001	199031	PT	1016			
		155031	UT45	1.2-16	B-J	Accepted	
	RHD-J003	199032				:7	
	ALF -U U U J	177032	MT	1.2-16	B-J	Accepted	
Reactor Core	RSB-J004	100035	UT45				
solation Cooling	1WD*JUU4	199037	MT	1.2-18	B-J	Accepted	
Recirculation	DCD Door	1006	UT45				
System	RCB-D001	199042	U <b>T0</b>	1.2-21A	B-D	Accepted	
oysicili			UT45			•	
	DOD DAGE		U <b>T60</b>				
	RCB-D001-INNER	199043	UT70	1.2-21A	B-D	Accepted	
	RAD					<b>F</b>	
	RCB-K010B	199146	VT-3	1.2-21A	F-A	Accepted	

May 23, 1998 through December 01, 1999

Part D Page 2 of 4

1) Owners: IES Utilities Inc., an Alliant company P.O. Box 351
Cedar Rapids, IA. 52406

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

## COMPONENT AND WELD EXAMINATION IDENTIFICATION RECORDS

CLASS 1 con't							
ISI ASME XI  Component Description Report Examination ISI Iso Category Results							
Description	Report	Examination	ISI Iso	Category	Results		
RRA-D001	199046	UT0	1.2-22	B-D	Accepted		
		UT45					
		UT60					
RRA-D001-INNER	199047	U <b>T70</b>	1.2-22	B-D	Accepted		
RAD							
RRB-D001	199048	U <b>TO</b>	1.2-22	B-D	Accepted		
		UT45					
		UT60					
RRB-D001-INNER	199049	U <b>T70</b>	1.2-22	B-D	Accepted		
RAD							
RRC-D001	199050	UT0	1.2-22	B-D	Accepted		
		UT45	<b></b>		· · · · · · · · · · · · · · · · · · · ·		
		UT60					
RRC-D001-INNER	199051	UT70	1.2-22	B-D	Accepted		
RAD				22	. receptor		
RRA-F002	199052	PT	1.2-22	B-F	Accepted		
		UT45		٠.	. rocopioa		
RRB-F002	199053		1.2-22	R-F	Overlaid		
				Δ.	AR17604		
HVA-FLG-STUD	199054	VT-1	1.2-24	B-G-2	Accepted		
LCA-J020	199059	PT	1.2-27	B-J	Accepted		
					· · · · · · · · · · · · · · · · · · ·		
VID-F002	199060	PT	1.2-31	B-F	Accepted		
					. Iooopiuu		
HDA-J027	199061	MT	1,2-32	B-J	Accepted		
				- •			
RPB-K002	199064	VT-3	1.3-03	F-A	Accepted		
			05	1 31	. recepted		
RPB-K003	199065	VT-3	1.3-03	F-A	Accepted		
GUIDE ROD BRT	199111	VT-3	Vs-01-28	B-N-1	Accepted		
(0)			· <del>-</del>				
SHROUD LEDGE 0-	19 <b>91</b> 11	VT-3	VS-02-11	B-N-1	Accepted		
180							
	199111	VT-3	VS-03-02	B-N-1	Accepted		
CORE PLATE	177111						
			VS-04-01	B-N-1	•		
TOP GUIDE	199111	VT-3	VS-04-01 VS-10-02	B-N-1 B-N-1	Accepted		
TOP GUIDE SAMPLE HOLDER-			VS-04-01 VS-10-02	B-N-1 B-N-1	•		
TOP GUIDE SAMPLE HOLDER- 108DEG	199111 199111	VT-3 VT-3	VS-10-02	B-N-1	Accepted Accepted		
TOP GUIDE SAMPLE HOLDER- 108DEG INCR DRY TB	199111	VT-3			Accepted		
TOP GUIDE SAMPLE HOLDER- 108DEG	199111 199111	VT-3 VT-3	VS-10-02	B-N-1	Accepted Accepted		
	RRA-D001  RRA-D001-INNER RAD RRB-D001-INNER RAD RRC-D001  RRC-D001-INNER RAD RRA-F002  RRB-F002  HVA-FLG-STUD LCA-J020  VID-F002  HDA-J027  RPB-K003  GUIDE ROD BRT (0) SHROUD LEDGE 0-	Description   Report   Report   RRA-D001   199046	Description   Report   Examination	Description   Report   Examination   ISI Iso	Description   Report   Examination   ISI Iso   Category		

May 23, 1998 through December 01, 1999

Part D, page 3 of 4

1) Owners: IES Utilities Inc., an Alliant company P.O. Box 351
Cedar Rapids, IA. 52406

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA, 52324

3) Plant Unit: #1

Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

## COMPONENT AND WELD EXAMINATION IDENTIFICATION RECORDS

	IPONENT AND W	CLASS 1 PR	ESSURE TEST		· · · · · · · · · · · · · · · · · · ·	
		ISI			ASME XI	· · · · · · · · · · · · · · · · · · ·
Component	Description	Report	Examination	ISI Iso	Category	Results
Class i System	Leakage Test	199107	VT-2	ISONO-P	B-P	
		CL	ASS 2	100110-1	D+F	Accepted
		ISI			A C2 (E) 3(7	
Component	Description	Report	Examination	ISI Iso	ASME XI	
RHR Heat	HEA-CA-3	199067	UT45		Category	Results
Exchanger		177007	0143	2.1-01	C-A	Accepted
RHR Shutdown	RHC-CF047	199070	MT	2224		
		123070	UT45	2.2-34	C-F-2	Accepted
RHR Ht Exchanger	RHF-CF079	199071	MT			
Discharge	0.077	199071		2.2-37A	C-F-2	Accepted
	RHF-CF127	100070	UT45			
	IGH -C1 121	199072	MT	2.2-37A	C-F-2	Accepted
	RHF-CF001	100055	UT45			
	Mir-Cruu	199073	MT	2.2-37B	C-F-2	Accepted
RHR Pump	DIII CECC		UT45			• .
Discharge (NW)	RHI-CF061	199074	MT	2.2-39	C-F-2	Accepted
Discharge (IVW)	D111 0000		UT45			
	RHI-CF081	199075	MT	2.2-39	C-F-2	Accepted
Unci			UT45			. receptor
HPCI	HPA-CF052	199078	MT	2.2-44	C-F-2	Accepted
			UT45		0.2	Accepted
	HPD-CF010	199081	MT	2.2-47	C-F-2	Accepted
			UT45		C-1-2	Accepted
Core Spray Disch.	CSB-CF068	199082	MT	2.2-49	C-F-2	Accorded
			UT45	,	C-1-2	Accepted
	CSD-CF004	199083	MT	2.2-51	C-F-2	A
			UT45	J1	C-F-2	Accepted
Main Steam	MSD-CF034	199084	MT	2,2-56	C-F-2	A
	MSE-CF007	199087	MT	2.2-56	C-F-2 C-F-2	Accepted
	_		UT45	4.4-31	C-F-2	Accepted
Scram Discharge	SDS-CF001	199089	MT	2.2-60	OFO	
-	-	177007	UT45	4.4 <b>-</b> 00	C-F-2	Accepted

May 23, 1998 through December 01, 1999

Part D, page 4 of 4

1) Owners: IES Utilities Inc., an Alliant company

P.O. Box 351 Cedar Rapids, IA: 52406 Central Iowa Power Cooperative Marion, IA.

Com Beit Power Cooperative

Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA, 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

COMPONENT	AND WELD	EXAMINATION	A IDENTIFIC	'ATTON I	DECODE
				ALION	VECOKD2

				TOTAL TOUR	ECURDS	
		CLASS 2 PRI	SSURE TESTS		<del></del>	
HPCI Functional Pressure Test	STP NS520001	199103	VT-2	ISONO-P	С-Н	Accepted
Standby Liquid Control Functional Pressure Test	STP NS530001	199148	VT-2	ISONO-P	С•Н	Accepted
Main Steam Inservice Pressure Test	STP NS830003	I9 <b>91</b> 04	VT-2	ISONO-P	С-Н	Accepted
LPCI Functional Pressure Test	STP NS490003	199102	VT-2	ISONO-P	С-Н	Accepted
Containment Penetrations	STP 3.6.1.1-08 (X-20 X-21, X-23A/B, X-24A/B, X-54, N229A)	0. N/A	Relief Request PR-002	ISONO-P	С-Н	Accepted

		IWE CON	<b>MPONENTS</b>		· · · · · · · · · · · · · · · · · · ·	<del></del>
		ISI	·		ASME XI	
Component	Description	Report	Examination	ISI Iso	Category	Results
Containment Vessel	General Visual	I9 <b>9</b> 140	VT	N/A	E-A	Accepted
Drywell Interior	757'-776' (270° to 0°)	199125	VT-3	N/A	E-A	Accepted
	742'-757' (270° to 0°)	199126	VT-3	N/A	E-A	Accepted
Moisture Barrier	742' (270° to 0°)	199141	VT-3	N/A	E-D	Accepted
Drywell Stabilizer	Stabilizer #2 (45°) X-58H	199130	VT-3	N/A	E-A	Accepted
	Stabilizer #2 Bolting	199130	VT-I	N/A	E-G	Accepted
	Stabilizer #8 (315°) X-58B	I <b>9912</b> 9	VT-3	N/A	E-A	Accepted
	Stabilizer #8 Bolting	199129	VT-1	N/A	E-G	Accepted
Equipment Hatch	Bolting	199134	VT-I	N/A	E-G	Accepted
Torus Interior	Bays 13,14,15,16 Above Water	199127	VT-3	N/A	E-A	Accepted
Torus Exterior	Bays 13,14,15,16	I9 <b>9128</b>	VT-3	N/A	E-A	Accepted (AR18128) (Ref. Part H)
Torus Hatch	Bolting	199135	VT-1	N/A	E-G	Accepted
Dryweil Vents	Vent #A (30°)	199131	VT-3	N/A	E-A	Accepted
	Vent #B (330°)	199132	VT-3	N/A	E-A	Accepted
	Vent #G (150°)	199133	VT-3	N/A	E-A	Accepted

May 23, 1998 through December 01, 1999

Part E, page i of 1

1) Owners: IES Utilities Inc., an Alliant company

P.O. Box 351 Cedar Rapids, IA. 52406 Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

## ADDITIONAL EXAMINATION IDENTIFICATION RECORDS

Original			iss I		
Component Examined	Expanded Component	ISI Report Number	Examination	ASME XI Category	Results
RRB-F002 (199053) (AR 17604)	RRE-F002	199153	UTRL UT45	B-F	Accepted
•	RRF-F002	199154	UTRL UT45	B-F	*Accepted
	RRG-F002	199155	UTRL UT45	B-F	(AR17482) Accepted
	RRH-F002	199156	UTRL	B-F	Accepted
	RRD-F002	I <b>99157</b>	UT45 UTRL	B-F	Overlaid
	CSB-F002	199152	UT45 UTRL UT45	B-F	(AR 17666) Accepted

<sup>\*</sup>AR17482 dispositioned subsurface flaw. Per IWB-3134 the evaluation is submitted for review under separate

## SUCCESSIVE EXAMINATION IDENTIFICATION RECORDS

Comme		Cla	ass 1	· · · · · · · · · · · · · · · · · · ·	
Component Examined	Previous ISI Report Number	ISI Report Number	Examination	ASME XI Category	Results
FWB-K023	93-115	199008	VT-3	F-A	
FWB-K036	93-602	199009	VT-3		Accepted
CUB-K005A	93-175	199025	VT-3	F-A	Accepted
	<del></del>			F-A	Accepted
HEA-CC-8(02)	196094		ss 2		
HEA-CC-8(04)	196094	199068	VT-3	F-A	Accepted
RHJ-CE033		199069	VT-3	F-A	Accepted
	93-622	I99076	VT-3	F-A	Accepted
RHM-CE006	<b>195139</b>	199077	VT-3	F-A	
HPC-CE018	93-410	199079	VT-3	F-A	Accepted
HPC-CE062	93-725	199080	VT-3		Accepted
MSD-CE020	93-449	199086		F-A	Accepted
MSF-CE030	93-466		VT-3	F-A	Accepted
12000	75-400	199088	VT-3	F-A	Accepted

THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT May 23, 1998 through December 01, 1999

This page intentionally blank

May 23, 1998 through December 01, 1999

Part F, page 1 of 2

 Owners: IES Utilities Inc., an Alliant company P.O. Box 351 Cedar Rapids, IA. 52406 Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

#### ABSTRACT OF ASME SECTION XI REPAIRS AND REPLACEMENTS

The repairs and replacements addressed in this report were performed in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, 1989 Edition, 1989 Addenda (Ref. Relief Request NDE-R015), 1992 with the 1992 Addenda (Ref. Relief Request NDE-R015 Rev. 1).

NIS-2 NO.	CLASS	COMPONENT	WORK DOCUMENT	DESCRIPTION
16-99-03	2	EBD-002	CMAR A49464	Replacement of 2" RF SW 600#
				Flange
16-99-07	2	MO 2202	CWO A43691	Drilled hole in Disc to eliminate
				pressure locking
16-99-08	2	HPD-CF010	CWO A39266	Flat Topped weld for UT
16-99-10	2	HPA-CF052	CWO A39262	Flat Topped weld for UT
16-99-11	2	RHI-CF061	CWO A39263	Flat Topped weld for UT
16-99-15	2	CSB-CF068	CWO A39265	Flat Topped weld for UT
16-99-16	2	RHF-CF127	CWO A39261	Flat Topped weld for UT
16-99-18	2	HLE-015-SS-314	PWO 1106544	Replaced Snubber
16-99-21	2	HPC-CE034	PWO 1106526	Replaced Snubber
		(EBB-014-SS-014)		
16-99-22	2	HPC-CE027	PWO 1106525	Replaced Snubber
		(EBB-014-SS-013)		
16-99-23	2	HPC-CE059	PWO 1106527	Replaced Snubber
		(EBB-014-SS-015)		
16-99-24	2	HPC-CE75	PWO 1106528	Replaced Snubber
		(EBB-014-SS-016)		
16-99-25	2	HPC-CE070	PWO 1106529	Replaced Snubber
		(EBB-014-SS-016A)		
16-99-26	1	RRB-F002	MWO 1111415	Applied Weld Overlay
		RRD-F002	MWO 1111416	
16-99-27	1	RRF-F002	CWO A50080	Machined weld crown flush
16-99-28	2	XS2618A	PWO 1111419	Explosive Valve replaced per
				Technical Specification and O&M
				Code
16-99-29	1	PSV-4402	PWO 1108298	Replaced Pilot valve, one bolt and
				one nut
16-99-30	1	PSV-4405	PWO 1108301	Replaced Pilot valve, one nut and
				four bolts
16-99-31	1	PSV-4400	PWO 1108296	Replaced Pilot Valve
16-99-32	1	PSV-4406	PWO 1108302	Replaced Pilot Valve
16-99-33	i	Snubbers	ECP-1617	Replaced all PSA Mechanical
				Snubbers with Lisega Hydraulic
				Snubbers
16-99-34	1	PSV-4402	PWO 1111414	Replaced Main Valve Body
16-99-35	1	1R215(26-15)	PWO 1110278	Replaced Capscrews and CRD
16-99-36	2	1S220(30-31)	CWO A44840	Replaced HCU Accumulator

May 23, 1998 through December 01, 1999

Part F, page 2 of 2

Owners: IES Utilities Inc., an Alliant company
 P.O. Box 351
 Cedar Rapids, IA. 52406

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

### ABSTRACT OF ASME SECTION XI REPAIRS AND REPLACEMENTS

NIS-2 NO.	<b>CLASS</b>	COMPONENT	WORK DOCUMENT	DESCRIPTION
16-99-37	2	1S220(38-15)	CWO A44687	Replaced HCU Accumulator
16-99-38	2	MO2202	CMAR A48209	Repaired bonnet
16-99-39	l	MO 1909	CMAR A39181	Machined Guide Slot and Bonnet
16-99-40	2	EBD-006	MWO 1110663	Installation of Spectacle Flanges to Isolate 2 <sup>nd</sup> Stage ReHeat
16-99-41	2	FO1064A/B/C/D/E	MWO 1111411	Relocation of Main Steam Lines Low Point Drains Low Flow Orifices
16-99-42	2	MO 1098	CWO A48551	Replaced Valve
16-99-43	1	RPB-K002 (DCA-004-SSB-004)	CWO A42356	Replaced Snubber
16-99-44	1	CUB-K009A (DCA-014-SS-073)	PWO 1109004	Replaced Snubber
16-99-45	1/2	1R215(14-31) 1S220(14-31)	CWO A48375	Replaced CRD and HCU Accumulator
16-99-46	1	CUB-K012A (DCA-014-SS-074)	CWO A49892	Replaced Snubber

May 23, 1998 through December 01, 1999

Part G, page 1 of 80

1) Owners: IES Utilities Inc., an Alliant company P.O. Box 351

Central Iowa Power Cooperative Marion, IA.

Com Belt Power Cooperative

Cedar Rapids, IA 52406

Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA, 52324

3) Plant Unit: #1

Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

Form NIS-2's

THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT May 23, 1998 through December 01, 1999

Part G, page 2 of 80

This page intentionally blank

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

1.	Owners	IES Utilities I	nc.	D	ate 02-24	-99					
		Name	•					•			
	P. O. Box	351, Cedar Rapi	ds, IA 52406	St	neet l	of	2	•			
		Addr	ess	<del></del>	<del></del>		<b>w</b> .				
2.	Plant	Duane Arnold	Energy Center		nit1		a vila				
		Name									
	3277 DAI	EC Road, Palo, I	A 52324		CMAR	À49464					
		Addr		Re	epair Organization to P.	O. No., Job	No., etc.				
3.	Work Per	formed by <u>IES U</u>	tilities Inc	TV	pe Code Symbol Stam	p Nor					
٠.		Name			Authorization No. None						
	3277 DA	EC Road, Palo, I	A 52324	Ex	Expiration Date None						
4.		tion of System:		n System 83.02 (Class							
5.		cable Construction		II B31.1 19		o Adden	ıda	Code Case.			
_				for Repairs or Repla							
6.	Identificat	tion of Compone	nts Repaired of Re	placed and Replacem	Tent Components	<del></del>	ı	ASME			
	iame of mponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or NO)			
	2" 600# F A-105	Dubose Steel Inc.	Heat # 745RNF	N/A	N/A	1990	Replacement	No			
2" Le	ngth of 2" 60 A-106	Dubose Steel Inc.	Heat # 403552	N/A	N/A	1995	Replacement	No			
(thirty	two) 5/8"- Is SA-194	Cardinal	Heat Code: A2	N/A	N/A	1986	Replacement	No			
	en) 5/8"-11 SA-193 B7	Cardinal	Heat Code: H2	N/A	N/A	1986	Replacement	No			
								2.5			
7.	Descriptio	on of Work:		RF SW 600# flanges replaced to ease insta	due to steam cut leakag llation.	ge. Short sec	tion of pipe &	flange			
8.	Tests Con	ducted:	Hydrostatic	Pneum	atic Non	ninal Operati	ing Pressure	X			
		Other	Pressu	re 940	psi Test Temp _	545	• F				
NOT	E: Supplei ms I throu	mental sheets in f gh 6 on this repo	form of lists, sketc rt is included on ea	hes, or drawings may ach sheet, and (3) eac	be used, provided (1) s h sheet is numbered and	ize is 81/2 in I the number	n. x 11 in., (2) in of sheets is rec	nformation orded at			

the top of this form.
(12/82) This Form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, NY 10017.

### FORM NIS-2 (Back)

9.	Remarks:	Two 2" RF SW 600# flanges were replaced down stream of CV1064 on line EBD-002 due to s	steam cut leakage.
		Applicable Manufacturer's Data Reports to be attached	~ .
	An inlat sac	stice (appear 2") of 2" Sah 160 A 106 mine and flance halving was send on the start of the	

An inlet section (approx. 2") of 2" Sch 160 A-106 pipe and flange bolting was replaced with the installation of these flanges.

Also bolting in a flange upstream of CV1064 was replaced during this repair. Code Case N 416-1 was utilized in lieu of hydrostatic test.

				Committee Commit
	CERTIFICATE OF CO	MPLIANCE		and the second of
We certify that the statements mad	e in the report are correct and this	s repair		
conforms to the rules of the ASME	Code Section VI	(repair or replace	ement)	Control Control State of State
contoinis to die fales of die Asivie	Code, Section At.			9 <b>68</b> - 1
Type Code Symbol Stamp	None			754
Certificate of Authorization No.	None	Expiration Date	N/A	The second secon
Signed Scott Pres	LGL Equipment Monitoring	Date 2-2	ا سی	· <del>****</del> ********************************
Owner or C	Owner's Designee, Title			
	· · · · · · · · · · · · · · · · · · ·			
	CERTIFICATE OF INS	ERVICE INSPECTION		- 100,000 m - 100,000 m
				ادر در در این این است. در این میساد در هیران
I, the undersigned, holding a valid	•		•	
the State or Province of	Iowa	and employed by H		
of Hartford.		ve inspected the compone		
during the period $\frac{12/18/9}{}$		26/99		that to the best of
my knowledge and belief, the Own		nd taken corrective measu	ıres described in tl	nis Owner's Report in
accordance with the requirements of	of the ASME Code, Section XI.			COMPANIENCE CONTRACTOR OF THE
By signing this certificate neither th				
examinations and corrective measu				
liable in any manner for any person	al injury or property damage or a	loss of any kind arising f	from or connected	with this inspection.
VAL 14	Commissions 410	110117 1 1 7	T4:200	
Inspector's Signature	Commissions Notice	11047 AN I Board, State, Province, a	141270	
inspector's Signature	National	i board, State, Province, a	ina Endorsements	
Date 726 26	, 19 99			

المراجع والمحمد عكارين

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

l.	Owners		y (IES Utilities)		Date05-05	-99		
		Nam	е					
	P. O. Box	x 351. Cedar Rap		s	heet 1	of	2	•
		Addı	ress	·		_ `` _		·
2.	Plant	Duane Arnoid	Energy Center	ŭ	Init 1		,	
		Nam				<del></del>	·	
	3277 DA	EC Road, Palo, L	A 52324		CIVO	42.00		
		Addr		R	CWO A epair Organization to P.	Q. No. Joh	No ero	
3.	Work Per	formed by Allian	t Energy (IES Util					er gegen State (nave) <del>Taliana area (na</del> ve)
٠.	WOLK I C	Name	it Lifelgy (IES Util		ype Code Symbol Stamp uthorization No.	Noi Noi		Ė
		EC Road, Palo, L		E:	xpiration Date	ne ne		
4. 5.		tion of System:	HPCI Turb	ine Steam Supply Iso				
٦.	(b) Appli	cable Construction of	Section XI Utilized	IE P&V Draft 19	68 Editionacements 1989-A89	Adder	ıda	Code Cas
6.	Identifica	tion of Compone	nts Repaired or Re	placed and Replacen	ient Components			
Co	Name of emponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or
Disc (	(A216 Gr. )	Anchor Valve Co.	0435-12B-4-2	N/A	MO 2202	1971	Repaired	NO)
							1 <u>200</u>	
								, e.,
				l				
7.	Descriptio	n of Work:	Drilled hole in Di	sc to eliminate the po	ossibility of pressure loc	king.		era e
8.	Tests Con	ducted:	Hydrostatic	Pneum	atic Nom	inal Operati	ng Pressure	
		Other	Pressur	re N/A	_ psi Test Temp _	N/A	°F	
	p of this fo	m.	t is included on each	in sneet, and (3) each	be used, provided (1) sind sheet is numbered and Dept., ASME, 345 E. 470	the number	of sheets is reco	orded at

### FORM NIS-2 (Back)

9.

9.	Remarks:	Pressure/Therm	nal Relief Hole was	drilled in the va	alve disc to assure the	hat the internal press	sure in the bonnet
		Applicable Mar	nufacturer's Data R	eports to be atta	iched		The state of the s
	will not be	greater than the u	pstream pressure. /	Adding the hole	was evaluated unde	er EMA A43691. N	o pressure test is
	required per	r ASME Section 2	XI Manual "Pressu	re Testing Adm	inistrative Docume	nt" paragraph 5.1.1(	O(d) (Interpretation XI-
	1-95-48).						÷4. 4
							: ***
							and the following states as
			CERTIFICAT	TE OF COMPI	LIANCE		2013年2月 2013年2月
We cert	ify that the s	statements made i	n the report are con	rect and this	repair		
conform	e to the mile	es of the ASME C	ada Cassian VI		(repair or repla	icement)	
CONTOUR	is to the thic	es di uie asivie c	ode, Section Al.				•5 . \$4 *
Type Co	de Symbol	Stamp	None				Control of Same
Certifica	ate of Autho	orization No.	None	E	xpiration Date	N/A	- <del>Ma</del> se of
Signed	teo	Mheely	GL Equipment N	Monitoring Da	ate 6-/	17 1	999
ı	•	Owner or Ow	ner's Designee, Tit			<del></del>	A service of
	~						construction of the Constr
				<del></del>			
			CERTIFICAT	E OF INSERV	VICE INSPECTIO	N	The second secon
I, the un	dersigned, h	holding a valid con	mmission issued by	the National B	oard of Boiler and F	Pressure Vessei Insp	ectors and
the State	or Province	e or	lowa	an	id employed by	Hartford Steam Boi	iler I & I Co.
	ne period	Hartford, C	onn.	have in	ispected the compor	nents described in th	is Owner's Report that to the best of
my knov	vledge and I	belief, the Owner	has performed exar	ninations and ta	iken corrective mea	sures described in the	that to the best of his Owner's Report in
accordar	ice with the	requirements of t	the ASME Code, Se	ection XI.			
By signi	ng this certi	ificate neither the	Inspector nor his er	nployer makes :	any warranty, expre	essed or implied, con	cerning the
examina	tions and co	orrective measures	s described in this C	)wner's Report.	. Furthermore neith	er the Inspector nor	his amployer shall be
-	-						with this inspection.
M	altyno Inspector's	<u> </u>	Commissions	NB11847	7 A, N, I	TA , and Endorsements	11290
	inspector's	Signature		National Bo	ard, State, Province	, and Endorsements	
Date	11	017	10 00				
Date _	guny		_ , 19 <i>99</i>				

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

1. Owners Alliant Energ		gy (IES Utilities)		Dat	Date		05-24-99			
		Name			-					
	P. O. Box	351, Cedar Rapio			- She	eet _	1	_ of	2	· · · · · · · · · · · · · · · · · · ·
2.	Plant	Duane Arnold Name			- Un	it _	1	<del></del>		* * * * ***
	3277 DAE	EC Road, Palo, IA	x 52324		-	CWO A39266				
		Addre	ess		Re	pair Or	ganization to P.	O. No., Job	No., etc.	Section 1
3.	Name 3277 DAEC Road, Palo, IA 52324			Type Code Symbol Stamp Authorization No. Expiration Date  None None						
4.				st to Torus I	69	Edition 70		da	Code Case.	
5.	(a) Appu	cable Construction of S	Section XI Utilized							
6.	Identificat	tion of Componer	nts Repaired or Re	placed and	d Replaceme	nt Con	nponents			T
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	Nationa	i Bard No.	Othe	er Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
HPD	0-CF010	SouthWest Fab & Welding Co.	N/Λ	N/A		HBB-6	5-1-5-SW	1971	Repaired	NO
				ļ	·					
7.	Description	on of Work:	Flat topped weld	for Ultras	sonic Exami	nation			,	******
8.	Tests Con	iducted:	Hydrostatic		Pneuma	ntic	Non	minal Operating Pressure		
		Other	Pressu	ire	N/A	psi	Test Temp	N/A	۰F	en e
NO in it	TE: Supple tems I throu	mental sheets in ligh 6 on this repo	form of lists, sketc rt is included on e	hes, or dra	awings may and (3) each	be used sheet	d, provided (1) si is numbered and	ze is 81/2 in the number	of sheets is rec	nformation orded at

(12/82) This Form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, NY 10017.

the top of this form.

### FORM NIS-2 (Back)

Weld HPD-CF010 was flat topped to allow for Ultrasonic Examination.

Applicable Manufacturer's Data Reports to be attached

9.

Remarks:

				e de la companya de l
	CERTIFICATE OF COM	IPLIANCE	· · · · · · · · · · · · · · · · · · ·	
We certify that the statements made in	the report are correct and this	гераіг	•	The state of the s
conforms to the rules of the ASME Coo	•	(repair or rep	lacement)	ाव <del>णाते</del> अवहारी
Type Code Symbol Stamp	None			
Certificate of Authorization No.	None	Expiration Date	N/A	
	GL Equipment Monitoring er's Designee, Title	Date 5	24	19 <u>99</u>
				j desperance .
	CERTIFICATE OF INSE	RVICE INSPECTI	ON	The second secon
I, the undersigned, holding a valid community of the State or Province of	Iowa	l Board of Boiler and and employed by	Pressure Vessei Hartford Steam	Inspectors and Boiler I & I Co.
the State or Province of of Hartford, Cor	lowa nn. have	and employed by	Hartford Steam onents described	Boiler I & I Co. in this Owner's Report
the State or Province of	lowa nn. have to OO as performed examinations and	and employed by e inspected the competed the competed the competers of the	Hartford Steam onents described , and s	Boiler I & I Co. in this Owner's Report tate that to the best of
the State or Province of of Hartford, Conduring the period O4/16/99 my knowledge and belief, the Owner ha	to OC as performed examinations and ASME Code, Section XI.  spector nor his employer mak described in this Owner's Repo	and employed by e inspected the composition fulf (16/99) d taken corrective me es any warranty, export. Furthermore, nei	Hartford Steam onents described , and s asures described ressed or implied, ther the Inspector	Boiler I & I Co. in this Owner's Report tate that to the best of in this Owner's Report in  concerning the nor his employer shall be
the State or Province of of Hartford, Conduring the period O4/16/99 my knowledge and belief, the Owner has accordance with the requirements of the Examinations and corrective measures of liable in any manner for any personal in	lowa  nn. have to OC as performed examinations and a ASME Code, Section XI.  spector nor his employer mak described in this Owner's Repetitively or property damage or a	and employed by e inspected the composition fulf (16/99) d taken corrective me es any warranty, export. Furthermore, nei	Hartford Steam onents described , and s asures described ressed or implied, ther the Inspector	Boiler I & I Co. in this Owner's Report tate that to the best of in this Owner's Report in  concerning the nor his employer shall be ted with this inspection.

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

Ι.	i. Owners Alliant Energy (IES Utilities) Name			Date _	05-27-	99			
	P. O. Box	351, Cedar Rapi		:	Sheet	1	of	2	
2.	Plant	Duane Arnold Name		1	Unit	I			
	3277 DAI	EC Road, Palo, LA				CWO A			
		Addre	ess	i	Repair Org	anization to P.	O. No., Job	No., etc.	-m
3.	Work Performed by <u>Alliant Energy (IES Utilities)</u> Name 3277 DAEC Road, Palo, IA 52324				Type Code Symbol Stamp Authorization No.  None			ıe	
4.					Expiration :		Non	ie 🔐 🛶	
5.					) Fullip Suc 19 69	Edition 70	Adden	ıda	Code Corr
,	(b) Appli	cable Edition of S	Section XI Utilized	for Repairs or Rep	lacements	1989-A89	Adden		Code Case
6.	Identificat	tion of Componer	its Repaired or Re	placed and Replace	ment Comp	ponents			
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other	Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or
HPA	-CF052	Bechtel	N/A	N/A	HLE-1-1	-I-FW	1972	Repaired	NO) YES
									<u> </u>
								21 M. A. 12.	
	<del></del>			<u> </u>					1
7.	Description	on of Work:	Flat topped weld	for Ultrasonic Exar	nination				
8.	Tests Con	ducted:	Hydrostatic	Pneu	matic	Nom	inal Operati	ing Pressure	
		Other	Pressu	re N/A	psi	Test Temp	N/A	۰F	ren <del>ge</del> Seresa
in it	ems I throu top of this fo	gh 6 on this repor orm.	t is included on ea	nes, or drawings match sheet, and (3) ea	ch sheet is	numbered and	the number	of sheets is rec	orded at

## FORM NIS-2 (Back)

Weld HPA-CF052 was flat topped to allow for Ultrasonic Examination.

9.

Remarks:

				٠.
				وي ميداندان المعادية
				'Black
	CERTIFICATE OF CO	MPLIANCE		
We comify the other and				The content of the co
We certify that the statements made in	n the report are correct and thi		·	
conforms to the rules of the ASME Co	ode, Section XI.	(repair or replac	ement)	**********
Type Code Symbol Stamp	None			A CONTRACTOR OF THE SECOND OF
Certificate of Authorization No.	None	Expiration Date	N/A	
Signed Signed	1 CL Equipment Monitoring	D.,,	10	
	ner's Designee, Title	_ Date	<i>/ 7</i> 19 <u>9</u>	9
	and a Designee, Three			9.44 <b>4.42.</b>
				Condition of the Condition
	CERTIFICATE OF INS	ERVICE INSPECTION	•	The second secon
Take and and a 11 11 11	CERTIFICATE OF INS			The second secon
I, the undersigned, holding a valid con	nmission issued by the Nation	al Board of Boiler and Pr	essure Vessel Inspect	ors and
I, the undersigned, holding a valid con the State or Province of	nmission issued by the Nation Iowa	al Board of Boiler and Prand employed by	essure Vessel Inspect lartford Steam Boiler	I&ICo
of Hartford, Co	nmission issued by the Nation  Iowa onn. ha	al Board of Boiler and Prand employed by For the inspected the components	essure Vessel Inspect lartford Steam Boiler nts described in this	I & I Co. Owner's Report
of Hartford, Co	nmission issued by the Nation  Iowa onn. ha	al Board of Boiler and Prand employed by Five inspected the compone	essure Vessel Inspect lartford Steam Boiler nts described in this	I & I Co. Owner's Report
of Hartford, Coduring the period O4/16/49 my knowledge and belief, the Owner h	nmission issued by the Nation  Iowa onn. ha to contact to the Nation of	al Board of Boiler and Prand employed by Five inspected the compone	essure Vessel Inspect lartford Steam Boiler nts described in this	I & I Co. Owner's Report
of Hartford, Co	nmission issued by the Nation  Iowa onn. ha to contact to the Nation of	al Board of Boiler and Prand employed by Five inspected the compone	essure Vessel Inspect lartford Steam Boiler nts described in this	I & I Co. Owner's Report
of Hartford, Coduring the period O4/16/99 my knowledge and belief, the Owner haccordance with the requirements of the By signing this certificate neither the I	nmission issued by the Nation  Iowa  onn. ha  to chas performed examinations at the ASME Code, Section XI.	al Board of Boiler and Prand employed by From the inspected the component of taken corrective measurables and taken corrective measurables and taken corrective measurables and taken corrective measurables.	essure Vessel Inspect lartford Steam Boiler nts described in this ( , and state tha res described in this (	I & I Co. Owner's Report t to the best of Owner's Report in
of Hartford, Coduring the period O4/16/49 my knowledge and belief, the Owner haccordance with the requirements of the By signing this certificate neither the I examinations and corrective measures	nmission issued by the Nation  Iowa  onn. ha  to to  has performed examinations at the ASME Code, Section XI.  Inspector nor his employer ma described in this Owner's Rei	al Board of Boiler and Prand employed by From the inspected the component of taken corrective measurables any warranty, express port Furthermore points.	essure Vessel Inspect (artford Steam Boiler nts described in this ( , and state tha res described in this (	I & I Co. Owner's Report t to the best of Owner's Report in ming the
of Hartford, Coduring the period O4/16/49 my knowledge and belief, the Owner haccordance with the requirements of the By signing this certificate neither the I examinations and corrective measures	nmission issued by the Nation  Iowa  onn. ha  to to  has performed examinations at the ASME Code, Section XI.  Inspector nor his employer ma described in this Owner's Rei	al Board of Boiler and Prand employed by From the inspected the component of taken corrective measurables any warranty, express port Furthermore points.	essure Vessel Inspect (artford Steam Boiler nts described in this ( , and state tha res described in this (	I & I Co. Owner's Report t to the best of Owner's Report in ming the
of Hartford, Coduring the period O4/16/99 my knowledge and belief, the Owner haccordance with the requirements of the By signing this certificate neither the I	nmission issued by the Nation  Iowa  onn.  to  as performed examinations at the ASME Code, Section XI.  Inspector nor his employer madescribed in this Owner's Rejinjury or property damage or a	al Board of Boiler and Prand employed by For the inspected the compone of the compone of the compone of the compone of the corrective measures and the corrective measures are some of the corrective of the corrective of the corrective of the corrective of the correction of the corre	essure Vessel Inspect lartford Steam Boiler nts described in this of , and state that res described in this of ed or implied, concert the Inspector nor his from or connected with	I & I Co. Owner's Report t to the best of Owner's Report in ming the
of Hartford, Coduring the period O4/16/49 my knowledge and belief, the Owner haccordance with the requirements of the By signing this certificate neither the I examinations and corrective measures liable in any manner for any personal in KALallman	nmission issued by the Nation  Iowa  onn.  to  as performed examinations at the ASME Code, Section XI.  Inspector nor his employer madescribed in this Owner's Rejinjury or property damage or a	al Board of Boiler and Prand employed by For the inspected the compone of the compone of the compone of the compone of the corrective measures and the corrective measures are some of the corrective of the corrective of the corrective of the corrective of the correction of the corre	essure Vessel Inspect lartford Steam Boiler nts described in this of , and state that res described in this of ed or implied, concert the Inspector nor his from or connected with	I & I Co. Owner's Report t to the best of Owner's Report in ming the
of Hartford, Coduring the period O4/16/49 my knowledge and belief, the Owner haccordance with the requirements of the By signing this certificate neither the I examinations and corrective measures	nmission issued by the Nation  Iowa  onn.  to  as performed examinations at the ASME Code, Section XI.  Inspector nor his employer madescribed in this Owner's Rejinjury or property damage or a	al Board of Boiler and Prand employed by For the inspected the compone of the compone of the compone of the compone of the corrective measures and the corrective measures are some of the corrective of the corrective of the corrective of the corrective of the correction of the corre	essure Vessel Inspect lartford Steam Boiler nts described in this of , and state that res described in this of ed or implied, concert the Inspector nor his from or connected with	I & I Co. Owner's Report t to the best of Owner's Report in ming the
of Hartford, Coduring the period O4/16/49 my knowledge and belief, the Owner haccordance with the requirements of the By signing this certificate neither the I examinations and corrective measures liable in any manner for any personal in Hallman Inspector's Signature	nmission issued by the Nation  Iowa  onn. ha  to has performed examinations and the ASME Code, Section XI.  Inspector nor his employer mandescribed in this Owner's Reginjury or property damage or a Commissions  Nationa	al Board of Boiler and Prand employed by From the inspected the component of taken corrective measurables any warranty, express port Furthermore points.	essure Vessel Inspect lartford Steam Boiler nts described in this of , and state that res described in this of ed or implied, concert the Inspector nor his from or connected with	I & I Co. Owner's Report t to the best of Owner's Report in ming the
of Hartford, Coduring the period O4/16/49 my knowledge and belief, the Owner haccordance with the requirements of the By signing this certificate neither the I examinations and corrective measures liable in any manner for any personal in KALallman	nmission issued by the Nation  Iowa  onn.  to  as performed examinations at the ASME Code, Section XI.  Inspector nor his employer madescribed in this Owner's Rejinjury or property damage or a	al Board of Boiler and Prand employed by For the inspected the compone of the compone of the compone of the compone of the corrective measures and the corrective measures are some of the corrective of the corrective of the corrective of the corrective of the correction of the corre	essure Vessel Inspect lartford Steam Boiler nts described in this of , and state that res described in this of ed or implied, concert the Inspector nor his from or connected with	I & I Co. Owner's Report t to the best of Owner's Report in ming the

Burning and a company of the company

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

l.	1. Owners Alliant Energy (IES Utilities)		Da	Date 05-27-		-99				
		Name	:	<del></del>	· · · · · · · · · · · · · · · · · · ·					
	P. O. Box	351, Cedar Rapi	ds, IA 52406	Sh	eet 1	of	2			
		Addr		· · · · · · · · · · · · · · · · · · ·	<del></del>					
2.	. Plant Duane Arnold Energy Cen		Energy Center	Uı	nit 1					
		Name					7 21 2	2.50		
	2277 DAI	EC Road, Palo, L	A 52324		CWO A	139263				
	3211 DAI	Addr		Re	Repair Organization to P. O. No., Job No., etc.					
_			. C /IEC III	::::::::::::::::::::::::::::::::::::::	vpe Code Symbol Stam	p Nor	, :	1		
3.	Work Performed by Alliant Energy (IES Utilities) Name				thorization No.	Nor		Company desired		
	3277 DAI	3277 DAEC Road, Palo. IA 52324			piration Date	Nor	ie			
4.								<u> </u>		
5.	(a) Appli	cable Construction		1 B3 1.7 19		0 Adden	ida	Code Case.		
6.	(b) Appli	cable Edition of S	Section XI Utilized ats Repaired or Re	for Repairs or Replacem	ent Components			.7.		
0.	Ideninca	lion of Compone	Its Repaired of Re	placed and replacem		T		ASME		
	Name of component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or NO)		
RHI	-CF061	South West Fab.	N/A	N/A	GBB-6-1-1-SW	1971	Repaired	NO		
	· · · · ·					_		1:6		
					<u>                                     </u>					
			<u> </u>					<u> </u>		
7.	Description	on of Work:	Flat topped weld	for Ultrasonic Exami	nation					
8.	8. Tests Conducted: Hydrostatic			Pneum	atic No	minal Operat	ing Pressure			
		Other	Pressu	re N/A	psi Test Temp	N/A	• F			
			لسبب							
NO	TE: Supple	mental sheets in	form of lists, sketci	hes, or drawings may	be used, provided (1) s	size is 81/2 in	ı. x     in., (2) ir	formation		
			rt is included on ea	ich sheet, and (3) eac	h sheet is numbered and	u me number	or sneers is rec	orueu at		
ine	top of this fo	orm. )   This Form (E0	0030) may be obta	ined from the Order	Dept., ASME, 345 E. 4	7th St., New	York, NY 1001	7.		

### FORM NIS-2 (Back)

Weld RHI-CF061 was flat topped to allow for Ultrasonic Examination.

9.

Remarks:

Applicable Manufacturer's Data Reports	to be attached	
		· •
		in the second of
CERTIFICATE OF	COMPLIANCE	
We certify that the statements made in the report are correct an	d this repair	A state comment
conforms to the rules of the ASME Code, Section XI.	(repair or replacement	ent) প্ৰশীৰ্ভাৱ
Type Code Symbol Stamp None		4140
Certificate of Authorization No. None	Expiration Date	N/A (277)
Signed And Self GL Equipment Monito	oring Date 5-27	19 <u>99</u> 25
Owner or Owner's Designee, Title		ALIGNAL
		100
CERTIFICATE OF	INSERVICE INSPECTION	e e e e e e e e e e e e e e e e e e e
I, the undersigned, holding a valid commission issued by the N	ational Board of Boiler and Press	sure Vessel Inspectors and
the State or Province of Iowa of Hartford, Conn.	and employed by Har	rtford Steam Boiler I & I Co. s described in this Owner's Report
during the period 02/02/06 to	- 06/16/99	, and state that to the best of
my knowledge and belief, the Owner has performed examination	ons and taken corrective measure	s described in this Owner's Report in
accordance with the requirements of the ASME Code, Section		to stranger.
By signing this certificate neither the Inspector nor his employ	er makes any warranty, expressed	I or implied, concerning the
examinations and corrective measures described in this Owner liable in any manner for any personal injury or property damag	ge or a loss of any kind arising fro	om or connected with this inspection.
	B 11047 AN I ational Board, State, Province, an	
Inspector's Signature Na		d Endorsements
1	ational Board, State, Province, an	d Endoisements
Date Qune 16 . 19 99	ational Board, State, Province, an	d Endorsements

# FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

1.	1. Owners Alliant Energy (IES Utilities) Name			Date	06-09	06-09-99			
	P. O. Bo	x 351, Cedar Rap Addı			Sheet	1	of	2	
2.	Plant	Duane Arnoid Nam	Energy Center		Unit .	1			
	3277 DA	EC Road, Palo, L Addr			Repair O	CWO A	39265 O. No., Job	No., etc.	Day of g
<ul><li>3.</li><li>4.</li><li>5.</li><li>6.</li></ul>	3277 DA Identifica (a) Appli (b) Appli	Name EC Road, Palo, Lation of System: icable Construction icable Edition of	Residual Ho	eat Removal (Clas I B31.7	Authoriza Expirations 2)	Edition 70	Nor Nor	ne ne	Code Case
Co	vame of emponent	Name of Manufacturer	Manufacturer Serial No.	National Board No		nponents	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or
CSB-	CF068	Bechtei	N/A	N/A	N/A		1971	Repaired	NO)
7.	Descriptio	n of Work:	Flat topped weld i	for Ultrasonic Exar	mination				
8.	Tests Cond	ducted:	Hydrostatic	Pneu	matic	Nom	inal Operati	ng Pressure	
	_	Other	Pressur		psi	Test Temp	N/A	• F	
	p of this fo	rm.	orm of lists, sketchet is included on each	in shoot, and (3) ca	ich sheet is	s numbered and	the number	of sheets is reco	orded at

### FORM NIS-2 (Back)

9.	Remarks:	Weld CSB-CF0	68 was flat topped	to allow for	Ultrasonic Exar	nination.			
		Applicable Man	utacturer's Data R	leports to be	attached				
		_						e e de la companya d	.*
			CERTIFICA	TE OF CO	MPLIANCE			<b>-</b>	
We cert	ify that the s	tatements made in	the report are cor	Tect and this	гераіг			an in the second second	
conform	ns to the rule	s of the ASME Co	ode, Section XI.		(repair o	or replacem	ent)	ं <del>हिंदी में</del>	:
Type Co	ode Symbol	Stamp	None					e de la companie de l	
Certifica	ate of Autho	rization No.	None	····	Expiration Dat	e	N/A		
Signed	Kend	Owner or Over	GL Equipment ler's Designee, Ti		Date <u>6</u> -	14-99		1999	
		Owner or Own						And the second s	
I, the un	dersigned, h	olding a valid con	CERTIFICA		ERVICE INSPE		ure Vessel I	Inspectors and	
the State	e or Province	ot	lowa		and employed	by Hart	ford Steam	Boiler I & I Co.	
my know	he period wledge and b	Hartford, Co	to	minations an	11/190		જ્યાનું લ	in this Owner's Reportate that to the best of in this Owner's Report	
By signi examina liable in	ing this certi	ficate neither the I rrective measures for any personal i	nspector nor his endescribed in this (	mployer mal Owner's Rep damage or a	ort. Furthermore	e, neither th arising fror	e Inspector n or connec	nor his employer sha ted with this inspecti	il be on.

1.	Owners Alliant Energy (IES Utilities) Name		<del></del>	Date	06-22	-99					
	P. O. Bo	x 351, Cedar Rap Addi			Sheet	1	of	2			
2.	Plant	Duane Arnolo Nam	l Energy Center e		Unit	1	······································				
	3277 DAEC Road, Palo, IA 52324 Address				CWO A39261 Repair Organization to P. O. No., Job No., etc.						
3. 4. 5.	3277 DA Identifica (a) Appli	Name EC Road, Palo, Intion of System: icable Construction	Residual He	eat Removal (Clas	Authoriz Expirations 2)	Edition 70	Noi Noi	ne ne	Code Case		
6.	(b) Appli Identifica	icable Edition of tion of the component of C	Section XI Utilized nts Repaired or Re	for Repairs or Re placed and Replace	placemen ement Co	ts 1989-A89			Code Case		
Co	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board No	. Ott	er Identification	Year Built	Replaced, or Replacement	ASME Code Stamped. (YES or NO)		
RHF-	CF127	Bechtel	N/A	N/A	GBB-	5-2-1-FW	1971	Repaired	NO		
7.	Descriptio	n of Work:	Flat topped weld	for Ultrasonic Exar	nination						
3.	Tests Con	ducted:	Hydrostatic	Pneu	matic	Nom	inal Operati	ng Pressu <b>re</b>			
		Other	Pressur	re N/A	psi	Test Temp	N/A	°F			
III IIC	op of this fo	gn o on this report rm.	t is included on eac	es, or drawings mach sheet, and (3) ea	ch sheet i	s numbered and	the number of	of sheets is reco	rded at		

Weld RHF-CF127 was flat topped to allow for Ultrasonic Examination.

9.

Remarks:

Applicable Ma	inufacturer's Data Reports to b	oe attached						
				•				
				•				
				en de sente e				
				e de la companya de l				
	CERTIFICATE OF CO	OMPLIANCE						
We certify that the statements made	in the report are correct and th	is repair		and the second s				
	no report are correct and th	(repair or rep	acement)					
conforms to the rules of the ASME (	Code, Section XI.	(copuli oi top	( )					
Time Code Sambal Starra	<b>N</b> 1			•				
Type Code Symbol Stamp	None		<del></del>	a projection in				
Certificate of Authorization No.	None	Expiration Date	N/A	** · · · · · · · · · · · · · · · · · ·				
Signed Signed Pour	/ 6/ 5			48 <u></u>				
20 20 11 11000	GL Equipment Monitoring vner's Designee, Title	Date 6-	23	1999				
Owner or Ow	viter a Designee, Title	•		4. B. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.				
				े विकास हर				
		······································						
	CERTIFICATE OF INS	SERVICE INSPECTION	ON	The second distance of the second sec				
I the undersioned holding a valid as		1 D1 - CD -11 1	<b>.</b>	Mary Charles Co. Co., Commission				
I, the undersigned, holding a valid co the State or Province of	inmission issued by the Nation	and employed by	Pressure Vessel In Hartford Steam B	spectors and				
of Hartford, C		ive inspected the compo	nents described in	this Owner's Report				
during the period 08/23/99	to to	07/12/99	, and sta	te that to the hest of				
my knowledge and belief, the Owner	has performed examinations a	ind taken corrective mea	sures described in	this Owner's Report in				
accordance with the requirements of	the ASME Code, Section XI.			ું જ				
By signing this certificate neither the	Inspector per his amplayer me	.leaa ame:						
By signing this certificate neither the examinations and corrective measure	s described in this Owner's Re	nces any warranty, expri	essed or implied, c	oncerning the				
liable in any manner for any personal	injury or property damage or	a loss of any kind arisin	g from or connecte	d with this inspection				
111 11								
			•					
Waltymon	Commissions NB	11047 A,N,I	. <i>IA</i>	1290				
Inspector's Signature	Commissions Nationa	1047 ANI Il Board, State, Province	and Endorsemen	1290				
	0 -	1047 A, N, I Il Board, State, Province	and Endorsemen	1 <u>1290</u>				
Inspector's Signature  Date July 12	Commissions <u>NB</u> Nationa	I Board, State, Province	e, and Endorsemen	<u>1290</u> ts				

1.	Owners Alliant Energy (IES Utilities)		Date _		09-09-99						
		Name									
	P. O. Box	351, Cedar Rapid	is, IA 52406		She	Sheetl		of	2	• 	
		Addre	ess	<del></del>						:	
2.	Plant	Plant Duane Arnold Energy Center			Un	Unit 1					
		Name						•			
	3277 DAI	EC Road, Palo, IA	X 52324				PWO 11			A British to	
		Addre	ess		Repair Organization to P. O. No., Job No., etc.						
3.	Work Per	formed by Allians	t Energy (IES Util	ities)	Type Code Symbol Stamp None					Spirit Miller W	
	Name				Authorization No.			Non	None		
		EC Road, Palo, LA	52324			piration		Non	e		
4.	Identification of System: Core Spray Pump 1P-211A Test Return Line Snubber (Class 2)										
5.	(a) Appli	cable Construction		IE III, ection NF	19	7 <b>7</b>	Edition W	77 Adden	da .	Code Case.	
	(b) Appli	cable Edition of	Section XI Utilized	for Repairs of	r Replac	cements	19 <u>89-A89</u>		<del></del>	· Line of the second second	
6.	Identifica	tion of Componer	nts Repaired or Re	placed and Re	placeme	ent Com	ponents				
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Bos			- Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)	
20 K	Lip Snubber	Bergen Paterson	N/A	N/A		DA-380		<del> </del>	Replaced	NO	
	Lip Snubber	Pergen Paterson	N/A	N/A		DA-424		Rebuilt 1999	Replacement	No	
								L		<u> </u>	
								<del> </del>		-	
						<del> </del>					
├				<del> </del>							
7.	Description	on of Work:	Replaced snubbe	r with a rebui	lt previo	usly inst	talled snubber.				
8.	8. Tests Conducted: Hydrostatic					atic	Non-	ninal Operat	ing Pressure		
		Othe	r Pressu	ire N/	Ά.	_ psi	Test Temp	N/A	°F	torregian bee •	
in i	tems 1 throu	igh 6 on this repo form.	form of lists, sketcort is included on e	ach sheet, and	i (3) eacl	n sheet is	s numbered and	the number	of sheets is rec	corded at	

- C

### FORM NIS-2 (Back)

9. Remarks: Snubber installed at location HLE-015-SS-314 (DA-380) failed visual inspection due to an oil leak at the front
Applicable Manufacturer's Data Reports to be attached

gland. A rebuilt previously installed snubber (DA-424) was installed at location HLE-015-SS-314. DA-424 was rebuilt as a spare snubber on PWO 1108673 (seal kit only was installed – no load bearing parts were replaced during rebuild).

	CERTIFICATE OF COM	PLIANCE	• .	
We certify that the statements made	le in the report are correct and this	replacement		
•	·	(repair or replace	ement)	is the state
conforms to the rules of the ASMI	E Code, Section XI.			ా సౌత్యమైన భావాగాడు
Type Code Symbol Stamp	None			The second secon
Certificate of Authorization No.	None	Expiration Date	N/A	er fireket
Signed Prove	GL Equipment Monitoring	Date Section	9991 C mahm	A STATE OF THE STA
Owner dr	Owner's Designee, Title	9		Websen ?
		· · · · · · · · · · · · · · · · · · ·		
	CERTIFICATE OF INSER	RVICE INSPECTIO	N	THE STATE
	commission issued by the National		ressure Vessel Inspector	mand
				3 au
the State or Province of			Hartford Steam Boiler I	& I Co.
of Hartford	d, Conn. have	inspected the compon	Hartford Steam Boiler I ents described in this O	& I Co. wner's Report
of Hartford during the period 9/8	d, Conn. have	inspected the compon	Hartford Steam Boiler I ents described in this On , and state that	& I Co. wner's Report to the best of
of Hartford	d, Conn. have	inspected the compon	Hartford Steam Boiler I ents described in this On , and state that	& I Co. wner's Report to the best of
of Hartford during the period q/g my knowledge and belief, the Ow accordance with the requirements By signing this certificate neither examinations and corrective meas	the Inspector nor his employer make ures described in this Owner's Reportal injury or property damage or a local Commissions	taken corrective meases any warranty, express. Furthermore, neithous of any kind arising	Hartford Steam Boiler I lents described in this Or , and state that sures described in this Or ssed or implied, concern er the Inspector nor his or from or connected with	& I Co. wner's Report to the best of wner's Report in ing the employer shall be

1.	Owners Alliant Energy (IES Utilities)			Date		10-2	24-99					
		Name										
	P. O. Box	351, Cedar Rapid	is, IA 52406		Sheet	:	1		of	2	•	
		Addre				-				:	· ·	
2.	Plant	Duane Arnold	Energy Center		Unit 1			î, şia	·			
		Name		<del> </del>			· · · · · · · · · · · · · · · · · · ·			·-··········	<del></del>	
	3277 DAF	EC Road, Palo, IA	52324				PWO	11065	526			
	3277 0.11	Addre			Repair Organization to P. O. No., Job No., etc.							
					_						i in 1 <sup>44</sup> The set on I have .	
3.	Work Per		Energy (IES Utili	ties)	• •	Code Sorizatio	Symbol Sta	mp	Non	····		
	Name 3277 DAEC Road, Palo, IA 52324					orizatio ration [			Non Non			
4.		ion of System:		Supply Snubbe	•		Jaic		14011		g di Lara <b>m</b> gag	
4. 5.		cable Construction		I B31.7	19	69	Edition	71	Adden	da	Code Case.	
٥.			Section XI Utilized		eplace	ments	1992 <u>-A92</u>		•	· · · · · · · · · · · · · · · · · · ·	•	
6.			nts Repaired or Rep						_	+ 4. L.	Arrive Stage Comment	
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board	No.	Other	Identification	-	ear Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)	
	I-014-SS-014 A-3 Snubber	Bergen Paterson	None	None	1	DA-015			buit 99	Replacement	No	
1133	A-3 Siluobei										w	
							· · · · · · · · · · · · · · · · · · ·					
<b> </b>			<u> </u>				<del></del>		······································		<del>                                     </del>	
	•										<u> </u>	
7.	Description	on of Work:	Replaced snubbe	r at EBB-014-SS	-014 lo	cation	with rebuil	t spare	S/N DA	-015.	, in the second	
8.	Tests Cor	ducted:	Hydrostatic	Pn	eumati	С	r	Nomina	ıl Operat	ing Pressure		
		Other	Pressu	ire		psi	Test Temp	)		۰F	ంతాంతాలు -	
in i	tems I throu	igh 6 on this repo orm.	form of lists, sketch rt is included on ea 0030) may be obta	ach sheet, and (3)	each s	heet is	numbered	and the	number	of sheets is re	corded at	

9.	Remarks:	Removed S/N DA-022 from Location EBB-014-SS-014 and replaced it with a spare S/N DA-015.	A pre-service	:e
		Applicable Manufacturer's Data Reports to be attached	****	_

VT-3 examination (P99107) was performed following installation. DA-015 was rebuilt & tested under PWO 1108672.

5/10/1999. No load bearing parts were installed replaced during the rebuild of DA-015 (only seal kit was installed). DA-015 was previously installed at location EBB-014-SS-015 prior to rebuild. This NIS-2 merely records currently installed location.

	AG TO								
CERTIFICATE OF C	OMPLIANCE CONTRACTOR								
We certify that the statements made in the report are correct and the	nis Replacement								
conforms to the rules of the ASME Code, Section XI.	(repair or replacement)								
Type Code Symbol Stamp None	স <b>ংগ্রেছ</b> ইন্ন বং								
Certificate of Authorization No. None	Expiration Date N/A								
Signed Signed TL Equipment Monitorin	g Date Cottober 25 1999								
Owner dr Owner's Designee, Title	- Control of the Cont								
CERTIFICATE OF INSERVICE INSPECTION									
I, the undersigned, holding a valid commission issued by the National State or Province of Iowa	onal Board of Boiler and Pressure Vessel Inspectors and and employed by Hartford Steam Boiler I & I Co.								
	nave inspected the components described in this Owner's Report								
	1/25/89 , and state that to the best of								
my knowledge and belief, the Owner has performed examinations accordance with the requirements of the ASME Code, Section XI.	and taken corrective measures described in this Owner's Report in								
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.									
Commissions NB	//ドファル, 4 エー・/ イスとエ 4- nal Board, State, Province, and Endorsements								
Inspector's Signature Nation	nal Board, State, Province, and Endorsements								
Date <u>/0-25-99</u> , 19									

l.	. Owners Alliant Energy		y (IES Utilities)		Date	10-24-99						
		Name	;									
	P O Box	351, Cedar Rapid	ds. IA 52406		She	eet	1	of	2	*		
		Addre		<del></del>								
_						•.						
2.	Plant		Energy Center		Un	it	<u> </u>			···		
		Name	i									
	3277 DAE	EC Road, Palo, IA	X 52324				PWO 1					
		Addre	ess		Repair Organization to P. O. No., Job No., etc.							
3.	Work Per	formed by Allians	t Energy (IES Utili	ities\	Type Code Symbol Stamp None					and the same of th		
J.	WOLK FCI	Name	Licity (ILS Otti	ities j	Authorization No.				None			
	3277 DAEC Road, Palo, IA 52324				Ex	piration	Date	Not	ne ,	• <del>••</del> ••••		
4.		tion of System:		ı Supply Snul						•		
5.		cable Construction		I B31.7	19		Edition 7	l Adder	nda	Code Case.		
,			Section XI Utilized hts Repaired or Re						444	and the second		
6.	Identificat	tion of Componer	its Repaired or Re	piaced and Ke	piacem		ponents	1	T	ASME		
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Box	ard No.	Other	r Identification	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or NO)		
	-014-SS-013 A-3 Snubber	Bergen Paterson	None	None		DA-009		Rebuilt 1999	Replacement	No		
		-						` .				
			<u> </u>			ļ		<del> </del>				
	······································							<del> </del>		<del> </del>		
	en e			<u> </u>		<u> </u>						
7.	Description	on of Work:	Replaced snubbe	r at EBB-014	-SS-013	location	with rebuilt s	pare S/N DA	-009.	riku (* )		
8.	Tests Con	ducted:	Hydrostatic		Pneuma	atic	No.	minal Operat	ting Pressure			
		Other	Pressu	re		_ psi	Test Temp		°F			
in i	tems 1 throu	gh 6 on this repo orm.	form of lists, sketc rt is included on ea 0030) may be obta	nch sheet, and	(3) each	ı sheet is	s numbered an	d the number	r of sheets is re	corded at		

9.	Remarks:	Removed S/N DA-060 from Location EBB-014-SS-013 and replaced it with a spare S/N DA-009. A pre-ser	rvice '
		Applicable Manufacturer's Data Reports to be attached	

VT-3 examination (P99106) was performed following installation. DA-009 was rebuilt & tested under PWO 1108666,

5/12/1999. No load bearing parts were installed replaced during the rebuild of DA-009 (only seal kit was installed). DA-009
was previously installed at location EBB-014-SS-016 prior to rebuild. This NIS-2 merely records currently installed location.

				SC TOTAL						
	CERTIFICATE OF COM	1PLIANCE		Transition of the second of th						
We certify that the statements made in	the report are correct and this	Replacement		. No make						
conforms to the rules of the ASME Co	ode, Section XI.	(repair or rep	lacement)	TO THE STATE OF TH						
Type Code Symbol Stamp	None			1.25 (j. 14)						
Certificate of Authorization No.	None	Expiration Date	N/A	the second of the second						
Signed ARRIELY	TL Equipment Monitoring	Date	tober 25 199	்கைகளை <i>ச்</i> 99						
	ner's Designee, Title			The state of the s						
	CERTIFICATE OF INSE	FRVICE INSPECTI	ON							
				ar hafte vill deliteration edges here anyther to approximation designs .						
I, the undersigned, holding a valid con the State or Province of	mmission issued by the Nationa  Iowa	al Board of Boiler and and employed by	I Pressure Vessel Inspect Hartford Steam Boile	tors and						
of Hartford, Co			onents described in this							
during the period 10/25/	<del> </del>	•		at to the best of						
my knowledge and belief, the Owner is	has performed examinations an									
accordance with the requirements of the	ne ASME Code, Section XI.	:		:						
examinations and corrective measures	By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.									
1111	Commissions N2 116	72 A.N.E.		is mail to merops.						
Inspector's Signature	National	Board, State, Provin	ce, and Endorsements							
Date 10/25/	_ , 19 <i>99</i>		,							

1.	I. Owners Alliant Energy		(IES Utilities)		Dat	e	10-24	1-99				
		Name										
	P. O. Box	351, Cedar Rapio Addre			She	et	1	of		2		
2.	Plant	Duane Arnold Name			Uni	it	1	<u> </u>	·			
	3277 DAF	C Road, Palo, LA	52324					1106527				
		Addre		<del></del>	Repair Organization to P. O. No., Job No., etc.							
3.	Work Perf	formed by Allians	Energy (IES Utili	ties)	Type Code Symbol Stamp None							
		Name				thorizati		_	Non			
	3277 DAEC Road, Palo, IA 52324					piration i	Date		Non	i <b>c</b>	-	
4.		ion of System:		Supply Snut	19	lass Z	Edition	71	Adden	da	Code Case.	
5.	(a) Appli	cable Construction		I B31.7				<del>/\ '</del>	Zuucii		Code Case.	
	(b) Appli	cable Edition of S	Section XI Utilized	tor Kepairs	or Kepia	cements	1992 <u>-1992</u>			**		
6.	Identificat	tion of Componer	nts Repaired or Rep	placed and Ke	placeme	nt Com	ponents			<u> </u>	ASME	
	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Bos	ırd No.	Other	· Identification		Built	Repaired, Replaced, or Replacement	Code Stamped (YES or NO)	
	3-014-SS-015 A-3 Snubber	Bergen Paterson	None	None		DA-008		Rebu 1999		Replacement	No	
											<del> </del>	
						<del> </del>		_			<del> </del>	
				<del> </del>		<u> </u>						
	<del></del>											
										1		
7.	Description	on of Work:	Replaced snubbe	r at EBB-014	-SS-015	location	with rebuilt	spare S/	N DA	-008.		
8.	Tests Cor	nducted:	Hydrostatic		Pneum	atic		Iominal (	Operat	ting Pressure		
		Othe	r Pressu	ire		_ psi	Test Temp			°F	• · · · · · · · · · · · · · · · · · · ·	
in	items 1 throu	igh 6 on this repo	form of lists, sketcort is included on e	ach sheet, and	(3) <b>ea</b> c	n sneet i	s numbered a	and me n	mine	Of Specia is le	corded at	

9.	Remarks:	Removed S/N DA-301 from Location EBB-014-SS-015 and replaced it with a spare S/N DA-00	08. A pre-servica
		Applicable Manufacturer's Data Reports to be attached	- Children

VT-3 examination (P99108) was performed following installation. DA-008 was rebuilt & tested under PWO 1108671.

5/10/1999. No load bearing parts were installed replaced during the rebuild of DA-008 (only seal kit was installed). DA-008 was previously installed at location DCA-014-SS-073 prior to rebuild. This NIS-2 merely records currently installed location.

	·	The second second
CERTIFICATE OF COM	<b>IPLIANCE</b>	· · · · · · · · · · · · · · · · · · ·
We certify that the statements made in the report are correct and this	Replacement	y See the April
conforms to the rules of the ASME Code, Section XI.	(repair or replacement)	1000 000 000 000 000 000 000 000 000 00
Type Code Symbol Stamp None		ALL PROPERTY.
Certificate of Authorization No. None	Expiration Date N/A	All the second of the second o
Signed TL Equipment Monitoring Owner or Owner's Designee, Title	Date Gotober 25	19 <u>99</u>
Owner or Owner a Doughou, The		- 2
	l Board of Boiler and Pressure Vessel Insp and employed by Hartford Steam Bo	oiler I & I Co.
	e inspected the components described in the	
my knowledge and belief, the Owner has performed examinations and accordance with the requirements of the ASME Code, Section XI.	i taken corrective measures described in t	e that to the best of this Owner's Report in
By signing this certificate neither the Inspector nor his employer make examinations and corrective measures described in this Owner's Repoliable in any manner for any personal injury or property damage or a least control of the co	ort. Furthermore, neither the Inspector no	r his employer shall be
Commissions NB 118	72 ANI	PART CORP.
Inspector's Signature National E	72 4, N, F Board, State, Province, and Endorsements	S
Date 10/25/ , 19 <u>99</u>		

1.	Owners	Alliant Energy	(IES Utilities)		Date	; 	10-24-99	)		
••		Name								
	P. O. Box 3	351, Cedar Rapid	s, IA 52406		She	et	1	of	2	
		Addres							,	
2.	Plant	Duane Arnold E	Energy Center		Uni	t	1			
•••	1 10011	Name	<u> </u>							
	2277 DAE	C Road, Palo, IA	52324				PWO 110			
	3211 DAE	Addre			Rep	air Organ	nization to P. C	). No., Job N	No., etc.	
			En anna (IES Heili	tias)	Tvr	ne Code S	symbol Stamp	None	•	
3.	Work Pert	ormed by Alliant Name	Energy (IES Utility	iics)		horizatio	-	None	8	
	3277 DAF	Name C Road, Palo, IA	52324		Ex	oiration D	ate	None	C	Patrick and the second
4.		ion of System:	HPCI Steam	Supply Sn	ubber – C	lass 2			1_	Codo Coso
5.	(-) A1;	anhla Constructio	n Code ANS	B31.7	19	69	Edition 71	Adden	da	Code Case.
٥.	(h) A li	able Edition of S	Section XI Utilized	for Repair	s or Replac	cements l	.992 <u>-A92</u>		•	
6.	Identificat	ion of Componer	its Repaired or Rep	placed and	Replaceme	nt Comp	onents	·		ASME
	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National E	•		Identification	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or NO)
	3-014-SS-016	Bergen Paterson	None	None		DA-370		Rebuilt 1999	Replacement	No
HS	A-3 Snubber									
						<u> </u>				
				ļ	<del> </del>					
<b> </b>										
								<u> </u>		
 7.	Descripti	on of Work:	Replaced snubbe	r at EBB-0	14-SS-016	location	with rebuilt sp	are S/N DA	-370.	
8.	Tests Co		Hydrostatic		Pneum	atic	Non	ninal Operat	ting Pressure	
		Othe	r Pressi	ıre		psi	Test Temp		°F	<b>-</b>
in	items 1 thro	ugh 6 on this repo	form of lists, sketo ort is included on e	ach sneet, a	and (3) eac	il succi is	illumbered and	a dio timino		
	(	,								* ";

or or with the first

#### FORM NIS-2 (Back)

9. Remarks: Removed S/N DA-004 from Location EBB-014-SS-016 and replaced it with a spare S/N DA-370. A pre-service Applicable Manufacturer's Data Reports to be attached

VT-3 examination (P99109) was performed following installation. DA-370 was rebuilt & tested under PWO 1108668,

5/12/1999. No load bearing parts were installed replaced during the rebuild of DA-370 (only seal kit was installed). DA-370 was previously installed at location DBA-007-SS-071 prior to rebuild. This NIS-2 merely records currently installed location.

	CERTIFICATE OF COM	<b>TPLIANCE</b>		
We certify that the statements made in	the report are correct and this	Replacement		. • .
conforms to the rules of the ASME Co	ode, Section XI.	(repair or repl	acement)	The grant of
Type Code Symbol Stamp	None			* 5 · 4 · 5
Certificate of Authorization No.	None	Expiration Date	N/A	
Signed Owner or Own	TL Equipment Monitoring ner's Designee, Title	Date Oct	ober 25	1999
I, the undersigned, holding a valid cor the State or Province of	CERTIFICATE OF INSI nmission issued by the Nationa Iowa		Pressure Vessel In	
of Hartford, C	onn. hav	e inspected the comp		
during the period ///25/ my knowledge and belief, the Owner accordance with the requirements of the	he ASME Code, Section XI.	d taken corrective me	asures described in	e e e e e e e e e e e e e e e e e e e
By signing this certificate neither the examinations and corrective measures liable in any manner for any personal	described in this Owner's Repinjury or property damage or a	oort. Furthermore, nei loss of any kind arisi	ther the Inspector n	or his employer shall be
Inspector's Signature	Commissions Ng //	1872 ANT Board, State, Province	ce and Endorsemen	nts
Inspector's Signature	19 9 <i>9</i>	i Douiu, State, i 104iili	o, mid Liidvistiiti	5500

1.	Owners	Alliant Energy	(IES Utilities)		Dat	e	10-24-	.99		
		Name								
	P. O. Box	351, Cedar Rapid	is, IA 52406		She	et	1	of	2	•
		Addre		<del></del>				<del>-</del>	. 4	
2.	Plant	nt Duane Arnold Energy Center				it	ı		e Ala•	
۷.	Name									
							DWO 1	106520		
	3277 DAI	C Road, Palo, IA			Ren	air Orga	PWO 1 anization to P.		No., etc.	····
		1,000			1	0.5		,	,	
3.	Work Per		t Energy (IES Utili	ties)			Symbol Stam			
	2077 5 4 7	Name	52224			thorizati piration		Non Non		·····
4.		EC Road, Palo, IA		Supply Snubbe		•	Date	1401	.6	
<del>4</del> . 5.		cable Construction		I В31.7	19	69	Edition 7	l Adden	da	Code Case
•	(b) Appli	cable Edition of S	Section XI Utilized					<del></del>	***	• • • • • • • • • • • • • • • • • • • •
6.	Identificat	ion of Componer	nts Repaired or Rep	placed and Repl	aceme	nt Com	ponents	<del></del>		1
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board	No.	Other	dentification	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or
EBB 016A	-014-SS-	Bergen Paterson	None	None		DA-368		Rebuilt 1999	Replacement	No
	A-3 Snubber									c
									·	
							· <del></del>			
7.	Description	on of Work:	Replaced snubbe	r at EBB-014-S	S-016	A locatio	on with rebuilt	spare S/N D	A-368.	
8.	Tests Con	iducted:	Hydrostatic	P	neuma	itic	No	minal Operat	ing Pressure	
		Other	r Pressu	re		_ psi	Test Temp		• F	it etres.
in it	tems I throu top of this f	igh 6 on this repo orm.	form of lists, sketch ort is included on ea 0030) may be obta	ach sheet, and (3	3) eaci	ı sheet is	s numbered an	d the number	n. x 11 in., (2) in of sheets is rec	orded at

9. Remarks: Removed S/N DA-063 from Location EBB-01	14-SS-016A and replaced it with a spare S/	N DA-368.
Applicable Manufacturer's Data Reports to be	attached	esti-
A Dre-service VT-3 examination (P00110) was a second to	allows and the state of the sta	
A pre-service VT-3 examination (P99110) was performed for	ollowing installation. DA-368 was rebuilt	& tested under PWO
1108669, 5/17/1999. During the rebuild of DA-368 the from	nt gland was replaced and documented on h	NIS-2 16-99-12. DA-
368 was previously installed at location EBB-014-SS-013 p	rior to rebuild.	The state of
		The Street Control of the Control of
		7
	•	•
		2.4 Nac. W
		* ************************************
		A2 (35)
CERTIFICATE OF COM	<b>IPLIANCE</b>	211212431
We certify that the statements made in the report are correct and this	Replacement	
	(repair or replacement)	was all solutions
conforms to the rules of the ASME Code, Section XI.	(1-pan or representative	-
Type Code Symbol Stamp None		-3.749 a.
Type Code Symbol Stamp None		《外世界起海 少本》
Certificate of Authorization No. None	Expiration Date N/A	The second secon
Signed TL Equipment Monitoring	Date (Att)	
Owner of Owner's Designee, Title	Date Cottober 25 1	999
V		
		Salar year and
CERTIFICATE OF INSE	RVICE INSPECTION	CONTRACTOR STATE OF S
I, the undersigned, holding a valid commission issued by the National	Poord of Poiler and Parameter 17	
the State or Province of Iowa	and employed by Hartford Steam Boil	ectors and
of Hartford, Conn. have	inspected the components described in the	is Owner's Report
during the period /11/20/50 to	-/ca	
my knowledge and belief, the Owner has performed examinations and accordance with the requirements of the ASME Code. Section XX	i taken corrective measures described in the	is Owner's Report in
accordance with the requirements of the ASME Code, Section XI.		
By signing this certificate neither the Inspector nor his employer make	25 any warranty avaraged or implied	Manorita de la composición del composición de la composición de l
examinations and confective ineasures described in this ( )wher's Rend	of Furthermore noither the I	
liable in any manner for any personal injury or property damage or a l	oss of any kind arising from or connected to	with this inspection
Inspector's Signature Commissions National	72 A.N. I	
National I	72 A N. E Board, State, Province, and Endorsements	
Date 10/25/ , 19 59		

### FORM NIS-2 16-99-26

## FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required by the Provisions of the ASME Code Section XI

1.	Owners	Alliant Energ	gy (IES Utilities)	E	Date 11-23	-99		initati
	P. O. Box	x 351, Cedar Rap	oids, IA 52406	s	heet 1	of	2	
		Add	ress					i ssv
2.	Plant	Duane Arnold Nam	i Energy Center	U	Init 1		No.	SERVO
	3277 DA	EC Road, Palo, I				1111415 & 1	1111416	(1987)
		Add	ress	Ř	epair Organization to P	. O. No., Job	No., etc.	
<ol> <li>3.</li> <li>4.</li> </ol>	2225 Sky	rformed by <u>Weld</u> Name land Court, Nord tion of System:		· А	ype Code Symbol Stam uthorization No. xpiration Date	P Non	ne ·	
5.		icable Construct		ISI B31.1	9 67 Edition	Adde	ado	Code Case.
	*GE Spec	cification 22A14	51AB ASM	ИЕ III 19	9 65 S	67		N-504-1, N-606, N-416-1
6.	(b) Appli Identifica	icable Edition of tion of Compone	Section XI Utilize nts Repaired or Re	d for Repairs or Repl placed and Replacen	acements 1992-A92 nent Components			<b>引引擎运动</b> 。
l Co	Identifica	Name of Manufacturer	Section XI Utilized into Repaired or Re  Manufacturer  Serial No.	d for Repairs or Repleplaced and Replacen National Board No.	ocements 1992-A92 nent Components Other Identification	Year Built		ASME Code Stamped (YES or
Co	Identifica Name of omponent F002	Name of Manufacturer  GE	nts Repaired or Re  Manufacturer Serial No.  XC0040205	National Board No.	Other Identification  N2B Nozzie to Safeend	1978	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
Co	Identifica	Name of Manufacturer	nts Repaired or Re Manufacturer Serial No.	Placed and Replacen National Board No.	Other Identification		Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
Co	Identifica Name of omponent F002	Name of Manufacturer  GE	nts Repaired or Re  Manufacturer Serial No.  XC0040205	National Board No.	Other Identification  N2B Nozzie to Safeend	1978	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
Co	Identifica Name of omponent F002	Name of Manufacturer  GE	nts Repaired or Re  Manufacturer Serial No.  XC0040205	National Board No.	Other Identification  N2B Nozzie to Safeend	1978	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
Co	Identifica Name of omponent F002	Name of Manufacturer  GE	nts Repaired or Re  Manufacturer Serial No.  XC0040205	National Board No.	Other Identification  N2B Nozzie to Safeend	1978	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO) NO
RRB-RRD	Identifica Name of omponent F002 F002 Description	Name of Manufacturer  GE GE on of Work:	nts Repaired or Re  Manufacturer Serial No.  XC0040205 XC0040204  Weld Overlay of	National Board No.  N 1189 N 1189 Welds RRB-F002 and	Other Identification  N2B Nozzle to Safeend N2D Nozzle to Safeend	1978	Repaired, Replaced, or Replacement Repaired Repaired	ASME Code Stamped (YES or NO) NO
RRB-RRD	Identifica Name of omponent F002 F002	Name of Manufacturer  GE GE on of Work:	nts Repaired or Re  Manufacturer Serial No.  XC0040205 XC0040204	National Board No.  N 1189  N 1189	Other Identification  N2B Nozzle to Safeend N2D Nozzle to Safeend	1978	Repaired, Replaced, or Replacement Repaired Repaired	ASME Code Stamped (YES or NO) NO
RRB-RRD	Identifica Name of omponent F002 F002 Description	Name of Manufacturer  GE GE on of Work:	Manufacturer Serial No.  XC0040205 XC0040204  Weld Overlay of Hydrostatic	National Board No.  N 1189 N 1189 Welds RRB-F002 and	Other Identification  N2B Nozzle to Safeend N2D Nozzle to Safeend	1978	Repaired, Replaced, or Replacement Repaired Repaired	ASME Code Stamped (YES or NO) NO

(12/82) This Form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, NY 10017.

the top of this form.

FORM NIS-2 16-99-26\

### FORM NIS-2 (Back)

9.	Remarks:	During the Inservice Inspection of RRB-F002, the UT examination revealed two indications Applicable Manufacturer's Data Reports to be attached	s with the
		tics of IGSCC. The expanded scope included RRD-F002 which also revealed indications. Bo	
	repaired by	applying a weld overlay per WSI. See attached Form NR-1. A preservice UT (P99138 and P1/24/09 and accepted. An Structural Integrity evaluation was completed accepting interbead Lack of F	P99139) was
	test in accor	rdance with Code Case N-416-1 was completed and accepted.	
			en e

					Salar Control
	CER	TIFICATE OF CO	MPLIANCE		maring and the second
We certify that the state	ments made in the repo	rt are correct and this	Repair		
conforms to the rules of	the ASME Code, Secti	on XI.	(repair or replac	ement)	ne.
Type Code Symbol Star	np Non	ie			in the second
Certificate of Authoriza	tion No.	None	Expiration Date	N/A	
Signed ATC	Owner or Owner's Desi	uipment Monitoring ignee, Title	Date Novemb	Der 23 199	29
			ERVICE INSPECTION		SALAN AND AND AND AND AND AND AND AND AND A
I, the undersigned, holdi the State or Province of	Io	issued by the Nationa		ressure Vessel Inspec Hartford Steam Boile	
of	Hartford, Conn.	hav	e inspected the compon		
during the period my knowledge and belie accordance with the requ	irements of the ASME	to ///23 med examinations an Code, Section XI.	d taken corrective meas	, and state the ures described in this	at to the best of Owner's Report in
By signing this certificat	e neither the Inspector i	nor his employer mak	es any warranty, expres	sed or implied, conce	rning the

my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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

Commissions

NB //872 AN I //422 IA

National Board, State, Province, and Endorsements

Date ///23/ , 19 99

			FORM NR-							DIFICAT			OR RE ER PLANT	PLACEM	ENT	J
I. Wo	nk perto	rmed	·	JNOCEL	A. (			ig Servi		15 111 110	CLLINC		CKILANI		38094	
	•							(pathe of y	R cerusicate i	-		.,	<del></del>		50., job 80., es	e.)
			**			2225 Sk	yiano		(address)	ss Georg	ia 3007	7 ]	<del></del>			
2. Ov	лет <u> </u>								ES Utiti	es Inc.			·			
						200 Firs	st Str	eet. SE	•	Rapids, i	A 52406	3				
									(address)							*****
3. Na	me, addr	ess ar	nd identificatio	n of nuclea	r pow	er plant	<u> </u>				ne Amo	old E	nergy Cente	r		
4. Sys	tem		<del></del>	<del></del>					ilo, Iowa	irculation			·	·····	<del></del>	
		h Re	quired. Modifi	cation, or R	eplac	ement Act	ivities		0.07 1.00	ii oolatio						
			,	kle	ntific	ition				· · · · · · · · · · · · · · · · · · ·			Construction	Code	-	Activity
No	Туре		Mfg.	Mfg		Nat'l B	id.	Jurisd.	Other	Year	Name Section		Edition/	Code	Code	Repair/ Mod/
$\perp$	Item		Name	Seriai		No.		No.		Built	Divisi		Addenda	Case(s)	Class	Replace
2	Wel-		GE GE	XC0040			_		N2B N2D	1978 1978	ASME		1965/ S67 1965/ S67	<del> </del>	1	Mod
3	1101		32	7.00040	14.04	14110			1420	1370	YOIVIE	. (11	1903/30/		1	Mod
5																
6			-	1												
7																
9				<del> </del> -												
10																
11																
				<u>.l</u>							<u> </u>			1		
5b. Ite	ms insta	lled [	During Replace	ment Activ								<del>,</del>				
Ty	pe of		installed or	Mfg		tification	M	nt'l Bd.	Ton-in-d	Other	Year	1	lame/	estruction (		
Ī	tem		replaced	Name		Mfg. rial No.		No.	Jurisd. No.		Built		ection/	Edition/ Addenda	Code Case(s)	Code Class
			5a Item No										VISION			
											_					
		-	····													~ 1
												:				21
			_													
	<b></b>													/	······································	
. ASI	ME Code	Secti	ion XI applicat	ole for inser	vices	inspection	: <u> </u>		989 edition)	<del></del> .		1989 ddenda			n/a Code Cesc(s))	)
. ASI	ME Code	Secti	ion XI used for	repairs, mo	dific	ations, or r	eplace	ements:	19			199		N50	04-1 / NE	306
. Con	struction	Code	e used for repai	irs modific	ation	or renisca	ء الدحالة	ς.	(edit		c	(adder		(	Code Cas(s)	,
- ***			tot repai	amannic	-uVil,	or replace		-	(edit			(Adder	1967 Maj	(	N/A Code Casera)	<del>,                                      </del>
. Des	ign respo	nsibi	lities							By Othe	ers				<del></del>	
0. Te	sts condu	icted:	hydrost	atic	ρn	ematic [		design p	ressure	•	essure	102		Code Cas	c(s) <u>N</u> -	416-1

11. Description of work	Installed weld metal build-up ( overlays ) to nozzle to safe end welds to Reactor Recirculation	Nozzies
N2B and N2D. Ins	(use of properly identified additional sheet(s) or disables) is ecceptable)  tallation is in accordance with WSI Travelers 38094001, 38094002 and Site MWO 1111415 and	
	and Site MAYO 1111415 and	1711416.
		.2
12. Remarks		
12. Remarks	Inco 52 and 152 filler material was utilized. Code cases 2142-1 and 2143-1.	
		a agailt early
		44.5
		south 5 in
	CERTIFICATE OF COMPLIANCE	
,	A	###
1. Ronald	Agen certify that to the best of my knowledge and belief the statements made in this report are	· # · .
the National Bo	repair, modification or replacement activities described above conform to Section XI of the ASME Code and pard Inspection Code "NR" rules.	
National Board	Certificate of Authorization No. 69 to use the "NR stamp expires Nov 7th 2004	
NR Certificate	Holder Welding Services Inc.	-
Date 11-2.3	3-99 Signed 152 (O) (Screen)	and a
<u> </u>	Signed Signed Sire OA MANAGER (MAINORIZED (MAINORIZED (MAINORIZED (MAINORIZED (MAINORIZED MAINORIZED (MAINORIZED MAINORIZED MAINORIZED (MAINORIZED MAINORIZED MAINORIZED MAINORIZED (MAINORIZED MAINORIZED MAINOR	-
2	CERTIFICATE OF INSPECTION	
1. Kon (	holding a valid commission issued by The National Board of Boiler and Pressure Vessel	
Inspectors and o	ertificate of competency issued by the jurisdiction of ZOWA and employed by	
	of <u>Conneticut</u> have	
best of my know	pair. modification or replacement described in this report  and state that to the viedge and belief, this repair, modification or replacement activity has been completed in accordance with	
Section XI of the	e ASME Code and the National Board Inspection Code "NR" rules.	
By signing this of	certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning	
the Work describ	led in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for	-
mis bersonar mit	ary, property damage or a loss of any kind arising from or connected with this inspection.	
Date /1/23/	Signed Commissions NB/1872 A.N. I	···· [:
	(Inspector) (National Board (Incl endorsements) Unreference and an A	

P. O. Box 351, Cedar Rapids, IA 52406  Address  2. Plant Duane Arnold Energy Center Unit 1  Samre  3277 DAEC Road, Palo, IA 52324  Address  Repair Organization to P. O. No., Job No., etc.  3. Work Performed by Alliant Energy (IES Utilities). Name Authorization No. None  3277 DAEC Road, Palo, IA 52324  Identification of System: Applicable Construction Code GE Spec 22A1461AB (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992-A92 6. Identification of Components Repaired or Replaced and Replacement Components  Name of Component  Name of Manufacturer Serial No.  Name of Component  Name of Component  Name of Component  Name of Manufacturer Serial No.  Name of Component  Name of Component  Name of Manufacturer Serial No.  Name of Name of Manufacturer Serial No.  Name of Name of Name of Manufacturer Serial No.  Name of Name of Name of Manufacturer Serial No.  No.  Noter Identification  No.  Noter Identification  No.  Repaired, Replacement  No.  Replacement  No.  Replacement  No.  Replacement  No.  Repaired  No.  Repaired  No.  Repaired  No.  Repaired  No.  Replacement  No.  Repaired  No.  Repaired  No.  Repaired  No.  Repaired  No.  Repaired  Repaired  No.  Repaired  No.  Repaired  No.  Repaired  No.  Repaired  No.  Repaired  No.  Repaired  Replacement  No.  Repaired  No.  Repaired	
Name  3277 DAEC Road, Palo, IA 52324  Repair Organization to P. O. No., Job No., etc.  3. Work Performed by Alliant Energy (IES Utilities).  Name  Name  Authorization No.  Identification of System:  Applicable Construction Code  *ANSI B31.1  Applicable Edition of Section XI Utilized for Repairs or Replacements 1992-A92  6. Identification of Components Repaired or Replaced and Replacement Components  Name of Component  Name of Manufacturer  Name of Component  Name of Component  Name of Component  Name of Manufacturer  Serial No.  National Board No.  National Board No.  National Board No.  Name of Component  Name of	
Address  Repair Organization to P. O. No., Job No., etc.  Repair Organization to P. O. No., Job No., etc.  Type Code Symbol Stamp None  Authorization No.  Serial No.  Recirculation System - Class 1  Applicable Construction Code  GE Spec 22A1461AB  (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992-A92  Repair Organization to P. O. No., Job No., etc.  Type Code Symbol Stamp None  None  None  None  Addenda  Code  GE Spec 22A1461AB  (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992-A92  Repaired, Replaced, or Replaced, or Replaced, or Replaced, or Replacement  Name of Component  Name of Manufacturer  Serial No.  National Board No.  Other Identification  Year Built  Repaired, Replaced, or Replacement  Replaced, or Replacement  Replacement	3.
Name  3277 DAEC Road, Palo, IA 52324  4. Identification of System:  Applicable Construction Code  *ANSI B31.1  *GE Spec 22A1461AB  (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992-A92  6. Identification of Components Repaired or Replaced and Replacement Components  Name of Component  Name of Manufacturer Serial No.  Name of Manufacturer Serial No.  National Board No.  Other Identification  Year Built  Repaired, Replaced, or Replacement  Replaced, or Replacement  Other Identification  Replacement  Other Identification	3.
Name of Components Repaired or Replaced and Replacement Components  Name of Component  Name of Manufacturer Serial No.  National Board No.  Other Identification  Year Built  Repaired, Replaced, or Replaced, or Replacement  (1)	
Component Manufacturer Serial No. National Board No. Other Identification Replaced, or Replaced, or Replacement (1)	
GE N/A N/A N2F Nozzle to Safeend 1978 Repaired NO	
	34.
7. Description of Work: RRF-F002 was machined flush in order to obtain additional UT data.	7.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure X	8.
Other Pressure 1023 psi Test Temp 246 °F  NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) inform in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded the top of this form	J.

(12/82) This Form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, NY 10017.

9.	Remarks:	UT Data from the Inservice Examination of Weld RRF-F002 was indeterminate and additional data was required
		Applicable Manufacturer's Data Reports to be attached

for further evaluation. The weld crown interfered with the interpretation of the indication found. The weld crown in the area of the indication was machined flush with the pipe and the UT was performed. The indication was documented and accepted on AR 17482. A PT, UT thickness and a VT-2 (199107) was completed and found acceptable.

CERTIFICATE OF COMPLIANCE स्थान अवस्थान We certify that the statements made in the report are correct and this (repair or replacement) conforms to the rules of the ASME Code, Section XI. Type Code Symbol Stamp None tres tales and Certificate of Authorization No. None **Expiration Date** N/A Signed L'Equipment Monitoring Date 1999 Owner or Owner's Designee, Title

	CERTIFICATE	OF INSERVICE INSPECT	ION The second of the second o
I, the undersigned, holding a valid the State or Province of	Iowa	and employed by	Hartford Steam Boiler I & I Co.
of Hartfor during the period ///3/5	d, Conn.	have inspected the comp	onents described in this Owner's Report , and state that to the best of
my knowledge and belief, the Ow accordance with the requirements	ner has performed examined of the ASME Code, Sect	nations and taken corrective me	easures described in this Owner's Report in
By signing this certificate neither examinations and corrective meas liable in any manner for any personal l	sures described in this Ow onal injury or property dan	mer's Report. Furthermore, ne	ither the Inspector nor his employer shall be ng from or connected with this inspection.
Date	, 19 <i>99</i>		

1.	Owners	IES Industrie		D	ate 11/24	/99		
	P. O. Box	351, Cedar Rap	ids, IA 52406	SI	neet I	of	2	
2.	Plant		Energy Center	U	nit <u> </u>		·	e super mate Legisla <del>P</del> ersical di S
	3277 DA	EC Road, Palo, L Addr			PWO 1	111419 . O. No., Job	No., etc.	
3. 4.	3277 DAI	formed by <u>IES U</u> Name EC Road, Palo, L	A 52324	Ty Ac Ex	/pe Code Symbol Stam uthorization No. spiration Date		ne ne	
5. 6.		tion of System: cable Construction icable Edition of tion of Compone		quid Control - Class2 IE III 19 If for Repairs or Replacements placed and Replacements	77 Edition S acements 1989-A92 dent Components	77 Adder	nda 	Code Case
7	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or	ASME Code Stamped
xplc				1	1		Replacement	(YES or
_	osive Valve	Conax Buffalo	P/N N27006-01A S/N 409	N/A	XS2618A	1999	Replacement	NO)
	osive Valve	Conax Buffalo		N/A	XS2618A	1999		NO)
7.		Conax Buffalo	S/N 409					NO)
7.		on of Work:	S/N 409		al Specifications and O		Replacement	NO)
	Descriptio	on of Work:	Explosive Valve  Hydrostatic	replaced per Technica	al Specifications and O	&M Code	Replacement	NO) NO

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(12/82) This Form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, NY 10017.

9.	Remarks:	Explosive Val	ve (Squib Valve) w	as replaced p	er Technical Specifica	tions and O&M Ca	ode Preservice VT 2	ŧ
		Applicable Ma	nufacturer's Data	Reports to be	attached	and other c	ode. Preservice v 1-2	_
	(P99112) w	as completed an	d accepted					
	13,22,1347,10	as completed an	a accepted.				•	
							e en	
			CERTIFICA	TE OF COM	<b>IPLIANCE</b>		TO A STATE OF THE	-
We ce	rtify that the s	statements made	in the report are co	rrect and this	replac	cement		
			Code, Section XI.		(repair or repla		The second secon	
Туре (	Code Symbol	Stamp	None				and the	
Certifi	cate of Autho	rization No.	None		Expiration Date	N/A		-
Signed	Scot	X Parte	GL Equipment	Monitoring	Date 22	24	1000 9:00	_
	<u> </u>	Owner or Ov	mer's Designee, Ti	itle	Daic Zerge	27	19 <u>98</u> 4 (2)	
		<del>-</del>					OH THE	
I, the u	ndersigned, h	olding a valid co	mmission issued by		RVICE INSPECTIO		pectors and	_
of	te of Province	e or Hartford, (	lowa		and employed by	Hartford Steam Be	oiler I & I Co.	Ŀ
my kno	the period owledge and b ance with the	1//3/99 belief, the Owner	to	<u>///29</u> minations and	e inspected the compore 1999 I taken corrective mean	•	this Owner's Report that to the best of this Owner's Report in	
	any manner	for any personal	s describen in inje i	damage or a l	oss of any kind arising	er the Inspector no from or connected	or his employer shall be i with this inspection.	÷
	Inspector's	Signature		National	Board, State, Province,	and Endorsement	3	_
Date _	11/29		, 19 <i>99</i>					

1.	Owners	IES Industrie		D	eate 11/30	)/99		
		Nam	le				······································	
	P. O. Bo	x 351, Cedar Rap	ids, IA 52406	Si	heet 1	of	2	
		Addı	ress	<del></del>				
2.	Plant	Duane Arnold	l Energy Center	U	nit 1		, in the second	•••
		Nam	е	<del></del>				
	3277 DA	EC Road, Palo, L	A 52324		PWO 1	108298		
		Addr		Re	epair Organization to P		No., etc.	
3.	Work Per	formed by <u>IES U</u>	Itilities, Inc.	Ty	ype Code Symbol Stam	p No	na ·	
		Name			uthorization No.	No		To see a second
		EC Road, Palo, L			epiration Date	No		
4.		tion of System:	Main Stean					
5.	(a) Appli	cable Construction	on Code ASM	ME III 19	68 Edition V	V68 Adder	nda	Code Case
6.	Identifica	tion of Compone	Section XI Utilized nts Repaired or Re	d for Repairs or Replacem	68 Edition V acements 1986-A92 ent Components	124/21810s	-	-
			†	Praced and Replacem	cin components .	1,05	<del>,                                      </del>	ASME
Со	ame of mponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or NO)
tem#	150 Nut	Target Rock	Ht# IN85326	N/A	PSV 4402	1991	Replacement	NO
Item # (1 ea.)		Nova Machine	Ht Code #DMH	N/A	PSV 4402	1996	Replacement	NO
Safety Valve	Relief Pilot	Target Rock	S/N 189	N/A	PSV 4402	1976	Replacement	YES
						<del> </del>		
7.	Description	on of Work:	Pilot S/N 200 was	s replaced with S/N 1	89. In addition, 1 Nut a	and 1 Bolt w	as replaced.	The second second
8.	Tests Con	ducted:	Hydrostatic	Pneuma	tic Non	ninal Operati	_	X
		Other	Pressure	e 1023	psi Test Temp	246	°F	r aria erisa. Tagan eriskeek
NOT:	E: Suppler	nental sheets in f	orm of lists, sketch	nes, or drawings may	be used, provided (1) si	ize is 81/2 in	. x 11 in., (2) inf	ormation
the to	p of this fo	sm.	i is included on ea	cn sneet, and (3) each	sheet is numbered and	the number	of sheets is reco	
			0030) may be obtai	ned from the Order D	ept., ASME, 345 E. 47	th St., New Y	York, NY 1 <b>0017</b>	

9. Remarks: Safety Relief Valve Pilot S/N 200 was removed for testing and replaced with S/N 189. Pilot (S/N 189) was

Applicable Manufacturer's Data Reports to be attached

tested and repaired under NIS-2 15-98-06. During installation a bolt and nut was replaced due to galling. A Preservice VT-1

(P99135) was completed and accepted for the replacement bolt and nut. A VT-2 (system leakage test) (199107) was completed and accepted.

	C	ERTIFICAT	TE OF COMPLIA	NCE		•	<u> Curuman en en</u>
We certify that the states	nents made in the re	eport are con	rect and this		acement	- 1947s	erithmill i
conforms to the rules of	the ASME Code, Se	ection XI.	·	(repair or rep	placement)		
Type Code Symbol Stan	np ·1	None				·	- ta, t
Certificate of Authorizat	ion No.	None	Ехріг	ation Date	N/A		en e
Signed Acath 19	Owner or Owner's I	Equipment Nosignee, Tit	Monitoring Date	Dec	. /	19 <u>99</u>	ीन क्षेत्रहरू तम्बंद्राज्यसम्
				·			172
I, the undersigned, holding the State or Province of	ng a valid commissi		and en	i of Boiler and	l Pressure Vessel : Hartford Steam	Boiler I & I	Co
of	Hartford, Conn.		have inspe	cted the comp	onents described	in this Owner	's Report
my knowledge and belief accordance with the requ	irements of the ASN	ME Code, Se	ction XI.		easures described		r's Report in
By signing this certificate examinations and correct liable in any manner for the significant of the signifi	ive measures descri my personal injury	bed in this O	wner's Report. Fu amage or a loss of	rthermore, nei any kind arisi	ther the Inspector ng from or connec	nor his employed	over shall be
Inspector's Sign		11101010110	National Board	State, Province	22 <i>TA</i> ce, and Endorseme	ents	r roman and a
Date 12-2-	, 1	9 <u>95</u>		, , , , , , , , , , , , , , , , , , ,			Same in the same of the same o

1.	Owners	IES Industrie		I	Date11/30	)/99		
	P O Box	Nam		,	**	_		
	r. O. Bu	x 351, Cedar Rap Add			Sheet 1	of	2	
2.	Plant	D 1 1	15 0	_			Section	- ***
۷,	Plant	Name Arnold	i Energy Center		Jnit 1			
	2000 0						مدر چین	
	3277 DA	EC Road, Palo, I Addi				108301	£.sk.	s - *
				K	Lepair Organization to P	'. O. No., Job	No., etc.	
3.	Work Per	formed by IES L	<u> Itilities, Inc.</u>		ype Code Symbol Starr	p No	ne	en e
	3277 DA	Name EC Road, Palo, I	A 52221		uthorization No.	No		
4.		tion of System:		n – Class 1	xpiration Date	No	ne	
5.					9 68 Edition V	V68 Adder	nda	Code Case
6.	(b) Appli	icable Edition of	Section XI Utilize	d for Repairs or Repleplaced and Replaced	9 68 Edition V acements 19 <b>80</b> -A92 67 nent Components	20/2 1.800	_	_
	-		his Repaired of Re	placed and Replacen	nent Components	703	1	ASME
Co	vame of mponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or NO)
ltem# (l ea.)	‡150 Nut )	Target Rock	Ht# IN85326	N/A	PSV 4405	1991	Replacement	NO
Item # (4 ea.)	#107 Bolt )	Nova Machine	Ht Code #DMH	N/A	PSV 4405	1996	Replacement	NO
Safety Valve	Relief Pilot	Target Rock	S/N 141	N/A	PSV 4405	1976	Replacement	YES
						<del>                                     </del>		
7.	Descriptio	on of Work:	Pilot S/N 176 wa	s replaced with S/N	41. In addition, 1 Nut	and 4 Bolts v	vere replaced.	
8.	Tests Con	ducted:	Hydrostatic	Pneuma	atic Non	ninal Operati	ng Pressure	X
		Other	Pressur	e 1023	_ psi Test Temp _	246	°F	
NOT:	E: Suppler	nental sheets in f	orm of lists, sketcl	nes, or drawings may	be used, provided (1) s	ize is 81/2 in	x 11 in., (2) inf	ormation

in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at

(12/82) This Form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, NY 10017.

the top of this form.

	Remarks:	Applicable Mar	ufacturer's Data R	deports to be attac	hed	141. Pilot (S/N 141) was
	tested and r		•	<b>-</b> ,	bolt and nut was replaced due to	galling. Upon further
	examination	1 of the remaining	bolts, 3 additiona	l bolts required re	placement due to what appeared	1 to be steam cutting. A
	Preservice V	/T-1 (P99133) wa	s completed and a	ccepted for the re	placement bolts and nut. A VT	-2 (system leakage test)
	(I99107) wa	is completed and a	iccepted. An expa	inded scope was a	added to inspect all other bolts/n	uts on all other Safety Relief
	Pilot Valves	(I99151).				TEARTOTT
			<del></del>			. •
			CERTIFICA'	TE OF COMPLI	ANCE	De la distribución
We cert	hify that the s	tatements made in	the report are cor	rect and this	replacement	2.67777 3.677.50
conform	ns to the rule:	s of the ASME Co	de, Section XI.		(repair or replacement)	and the second
Type Co	ode Symbol S	Stamp	None			
Certific	ate of Author	rization No.	None	Ехр	iration DateN/A	ी <del>ष्ट्रीव्यक्त</del> संदर्भगढे हो
Signed	west!	Prulia.	GI Equipment I		$\Omega$ /	1999
		Owner or Own	GL Equipment Ner's Designee, Tit		tec.	A CONTRACTOR OF THE CONTRACTOR
			cer's Designee, Titl	le TE OF INSERVI	CE INSPECTION	
the State	idersigned, ho	olding a valid com	CERTIFICAT mission issued by Iowa	TE OF INSERVI	CE INSPECTION rd of Boiler and Pressure Vesse.	
the State of during th my know	e or Province he period wledge and be	olding a valid com of Hartford, Co	CERTIFICAT  mission issued by Iowa  nn.  5 to as performed exan	the National Boar and have insp	CE INSPECTION  rd of Boiler and Pressure Vesse, employed by Hartford Steam ected the components described	I Inspectors and m Boiler I & I Co. i in this Owner's Report state that to the best of
of during the my know accordant By significations.	he period wledge and be nce with the r ng this certifitions and con	olding a valid come of Hartford, Co	CERTIFICAT  mission issued by Iowa  nn.  5 to as performed exan e ASME Code, Se  aspector nor his endescribed in this O	the National Boanand of have insput i	CE INSPECTION  and of Boiler and Pressure Vesse employed by Hartford Steam exted the components described and the components described and the components described the com	I Inspectors and m Boiler I & I Co. i in this Owner's Report state that to the best of i in this Owner's Report in i, concerning the or nor his employer shall be
the State of during th my know accordan  By signif examinat itable in	he period wledge and be nce with the r ng this certifitions and con	olding a valid come of Hartford, Co  //-2- 5 elief, the Owner harequirements of the control of t	CERTIFICAT  mission issued by Iowa  nn.  5 to as performed exan e ASME Code, Se  aspector nor his endescribed in this O	the National Boar and have insp  /2-2-5 minations and take action XI.  mployer makes any winer's Report. Flamage or a loss of	ce inspection  and of Boiler and Pressure Vesser  employed by Hartford Steam  bected the components described  an corrective measures described  warranty, expressed or implied  turthermore, neither the Inspector	I Inspectors and m Boiler I & I Co. i in this Owner's Report state that to the best of i in this Owner's Report in i, concerning the or nor his employer shall be ected with this inspection.

1.	Owners	IES Industrie			Date	11/30	/99		
	P. O. Box	x 351, Cedar Rap	oids, IA 52406		Sheet	1	of	2	t•
2.	Plant	Duane Arnold	i Energy Center	<del></del>	Unit	1		<u>.</u> · · ·	o di ca neces
	3277 DA	EC Road, Palo, I Addi			Penair C	PWO 1 Organization to P.	108296	N.	rikanya ji e 111
3.	3277 DA	formed by <u>IES U</u> Name EC Road, Palo, I tion of System:	A 52324 Main Stear	n – Class 1	Type Co Authoriz Expiration	de Symbol Stam ation No. on Date	Non Non	ne .	ed engliges
5. 6.	(a) Appli (b) Appli Identifica	cable Construction of tion of Compone	on Code ASM Section XI Utilize nts Repaired or Re	ME III d for Repairs or F eplaced and Repla	19 68 Replacement Accement Co	Edition Water 1988-A92	768 Adder	nda _	Code Case
Со	ame of mponent	Name of Manufacturer	Manufacturer Serial No.	National Board		her Identification	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or
	Relief Pilot	Target Rock	S/N 218	N/A	PSV	1400	1976	Replacement	YES
								92	
<u></u>									
7.	Description	n of Work:	Pilot S/N 207 wa	s replaced with S	/N 218.			- - 27	grande en l
8.	Tests Con	ducted:	Hydrostatic	Pne	umatic	Nom	inal Operati	ng Pressure	X
		Other	Pressur	e 1023	psi	Test Temp	246	°F	The second of th

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(12/82) This Form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, NY 10017.

9.	Remarks:	Safety Relief Valve Pilot S/N 207 was removed for testing and replaced with S/N 218. Pilot	(S/N 218)	wa:
		Applicable Manufacturer's Data Reports to be attached	.=	

tested and repaired under NIS-2 16-99-05. A VT-2 (system leakage test) (I99107) was completed and accepted.

-	· · · · · · · · · · · · · · · · · · ·				
	CI	ERTIFICATE OF CON	<b>PLIANCE</b>		7 <u>2</u> .7
We certify that the states	ments made in the re	port are correct and this		acement	
conforms to the rules of	the ASME Code, Se	ection XI.	(repair or rep	lacement)	
Type Code Symbol Stan	np <u>1</u>	None			
Certificate of Authorizat	ion No.	None	Expiration Date	N/A	
Signed Low		Equipment Monitoring	Date Nec	/	19 <u>99</u>
	Owner or Owner's D	esignee, Title	•		ryl companie by
					**
I, the undersigned, holding the State or Province of		ERTIFICATE OF INSE on issued by the Nationa Iowa		Pressure Vessei In	
of	Hartford, Conn.				this Owner's Report
during the period my knowledge and belief accordance with the requ				, and sta asures described in	ate that to the best of a this Owner's Report in
By signing this certificate examinations and correct liable in any manner for a	ive measures descri any personal injury	bed in this Owner's Repo or property damage or a	ort. Furthermore, neitloss of any kind arisin	ther the Inspector r ng from or connector	nor his employer shall be ed with this inspection.
Inspector's Sign		nissions National	Board, State, Province	z IA	
Date /2-2		9 <u>9 5</u>	Doard, State, Frovinc	e, and endoisemen	

1.	Owners	IES Industries	s		Da	te11/3	0/99			
	D 0 D	Name	_		C1					:
	P. O. Box	351, Cedar Rapi Addr			Sh	eet <u>1</u>	of _	2		
		Audi	C33						• • •	and the Service
2.	Plant		Energy Center		Un	it <u>1</u>				
		Name	e							
	3277 DA	EC Road, Palo, L	A 52324			PWO	1108302		•	
		Addr			Re	pair Organization to	P. O. No., Jo	ob No., etc.		aris ins
3.	Work Don	formed by <u>IES U</u>	tilitias Inc		т	na Cada Sembal Sta	X	ione		
٥.	WOIK FCI	Name	tinties, nic.		•	pe Code Symbol Star thorization No.		lone	- K	· · • • · · · · · · · · · · · · · · · ·
	3277 DA	EC Road, Palo, L	A 52324			piration Date		lone		- 44
4.		tion of System:	Main Stear							
5.	(a) Appli	cable Construction	on Code ASN	ME III	19	68 Edition	W68 Add	lenda		Code Case
6.	(b) Appli	cable Edition of a	Section XI Utilize	d for Repairs or I	Replac	cements 1989-A92 (cent Components	10 gc 2/4/60	-		a :
]	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board		Other Identification	Year Bui	it Repai Repiac Repiac	red, ed, or	ASME Code Stamped (YES or NO)
	ry Relief e Pilot	Target Rock	S/N 203	N/A		PSV 4406	1976	Replacen	ent	YES
										No.
7.	Description	on of Work:	Pilot S/N 227 wa	s replaced with S	S/N 20	03.				
8.	Tests Con	ducted:	Hydrostatic	Pne	eumat	ic No	ominal Oper	ating Pressu	ıre	X
		Other	Pressur	re <u>1023</u>		psi Test Temp	246	•	F	The second secon

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(12/82) This Form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, NY 10017.

Applicable M	lanufacturer's Data Reports to be	attached	5. Filot (S/N 205) Was
tested and renaired under N	JIS-2 16 00 01 A VT 2 (	Janlanda Array (TOO LOG)	The second secon
issied and repaired under re	113-2 10-99-01. A V 1-2 (SVStem	leakage test) (199107) was completed	and accepted.
			Programme and the second secon
	CERTIFICATE OF COM	MPLIANCE	and the Control of th
We certify that the statements made	in the report are correct and this	replacement	
conforms to the rules of the ASME	Code, Section XI.	(repair or replacement)	A STATE OF THE PARTY OF THE PAR
Type Code Symbol Stamp	None		- अस्ति श्रीकारात्र
Certificate of Authorization No.	None	Expiration Date N/A	ig K <b>≅₹*</b> *
Signed Lott Trible	GL Equipment Monitoring	Date Dec.	19 <u>99</u>
Owner or O	wner's Designee, Title		Control of the Contro
I, the undersigned, holding a valid of the State or Province of	CERTIFICATE OF INSE  ommission issued by the National  Iowa	l Board of Boiler and Pressure Vessel	Inspectors and
of Hartford,		and employed by Hartford Steam	Boiler I & I Co.
during the period 12-2		e inspected the components described i	
	r has performed examinations and	d taken corrective measures described	tate that to the best of in this Owner's Report in
Du cionino this antificate maistre de	_		
examiniations and corrective measure	is described in this Owner's Repo	es any warranty, expressed or implied, ort. Furthermore, neither the Inspector loss of any kind arising from or connector.	nor his applaces shall be
examinations and corrective measure	is described in this Owner's Repo	ort. Furthermore neither the Inspector	nor his employer shall be ted with this inspection.
liable in any manner for any personal	is described in this Owner's Repo	ort. Furthermore, neither the Inspector loss of any kind arising from or connec	nor his employer shall be ted with this inspection.

l.	Owners IES Industries		Date			11/30	11/30/99		
	Name								
_	P. O. Box 351, Cedar Rapids, IA 52406			)6 S	heet	i	of		
		Address					<del></del>	10 mg	ing a second constraint of the second constrai
2.	Plant	nt Duane Arnold Energy Center		er (	Jnit _		1		
			Name		_				
		3277 DAEC Roa	d, Palo, IA 52324	ĭ	FCP 16	17 (See Attached	Listing for 9	Specific MWO	Numbeen
-	· · · · · · · · · · · · · · · · · · ·	Jan Dile Roa	Address			Repair Organiza	tion to P. O.	No., Job No., e	ic.
_						-		•	,
3.	W		y <u>IES Utilities, Inc.</u>	•	• •	ode Symbol Star	np	None	
		=	me d, Palo, IA 52324			horization No. piration Date		None None	
4.		ication of System		<del></del>		tached Listing fo	or SUS	Mone	* 24
5.		licable Construct		ASME III I	9 74		76 Adden	da	Code
		<b></b>				<del>_</del> <del></del>	92	•	Case.
6.		(b) A	Applicable Edition	of Section XI Utilize conents Repaired or I	d for R	epairs or Replac	ements 1982	A92 Q 22/16	e de la composition della comp
<u> </u>		140	initication of Comp	onems Repaired or 1	Teplace	d and Replacem	Citt Compone	ans 7 you	- ASME
	ame of mponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Oth	er Identification	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or NO)
See attached List		See attached List	See Attached List	N/A	Se	e Attached List	See Attached List	See Attached List	No
		· · · · · · · · · · · · · · · · · · ·		- <del> </del>	+				
·					!		<u> </u>		
7.	Descrip	tion of Work:	EC	CP 1617 replaced all	Mechar	nical Snubbers w	ith Hydraulic	Snubbers	1.000
8.	Tests	Conducted:	Hydrostatic	Pneuma	ıtic	Non	ninal Operatir	ng Pressure	
		Other	Pressure	N/A	psi	Test Temp	N/A	°F	er G
									- Maria

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(12/82) This Form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, NY 10017.

9. Remarks: All	mechanical snubbers were	replaced with a second generation	on nydrautic design snu	bber. Replacement				
Applicable Manufacturer's Data Reports to be attached								
	of dogwooded machine	al snubbers was required to impro	ove snubber reliability	<del>-</del>				
	or degraded mechanica	at shubbers was required to might	ove situbbet rettability.	••				
				· .				
	CERTIFICA	ATE OF COMPLIANCE		ીવ <b>ર્જી</b> જ				
We certify that the statem	ents made in the report are	correct and this	replacement	-				
we certify that the statem	chis made in the report are		(repair or replace					
	conforms to th	e rules of the ASME Code, Secti	ion XI.	e se sek <del>alalak</del> iki king bi <del>ginankiyaa a</del>				
		37						
Type Code Symbol Stamp	)	None						
Certificate of Authorization	on No. Nor	ne Expiration Date	ז	N/A				
$\langle \langle \rangle \rangle$			161					
Signed College C	GL Equipment Monitoring er or Owner's Designee, T	Date	1/5/	2000				
/ \Own	er or Owner's Designee, 1	itle	· • •	14.				
V	•							
V				-				
				and the state of t				
V		ATE OF INSERVICE INSPEC	TION	annessivensis ya canga milangi an ingay ya ganga ka sa				
	CERTIFICA	ATE OF INSERVICE INSPEC		el Inspectors and				
I, the undersigned, ho	CERTIFICA	ATE OF INSERVICE INSPEC	Boiler and Pressure Vess	el Inspectors and m Boiler I & I Co.				
I, the undersigned, ho the State or Province of	CERTIFICA Iding a valid commission i Iowa	ATE OF INSERVICE INSPEC ssued by the National Board of E and employed by	Boiler and Pressure Vess y Hartford Stear components described in	m Boller 1 & 1 Co.  this Owner's Report				
I, the undersigned, ho the State or Province of of H	CERTIFICA Iding a valid commission i Iowa artford, Conn.	arte OF INSERVICE INSPECtions and employed by the National Board of Earned employed by the inspected the country and the country and the country are to the country and the country are to the country are to the country are the country are to the country are the country a	Boiler and Pressure Vess  Martford Stear  components described in  , and st	this Owner's Report ate that to the best of				
I, the undersigned, ho the State or Province of of H	CERTIFICA Iding a valid commission i Iowa artford, Conn. - 18-99 he Owner has performed e	arte of Inservice Inspectors and employed by the National Board of Earned employed by the inspected the control of the inspected the inspec	Boiler and Pressure Vess  Martford Stead  components described in  and stead	this Owner's Report ate that to the best of				
I, the undersigned, ho the State or Province of of H	CERTIFICA Iding a valid commission i Iowa artford, Conn. - 18-99 he Owner has performed e	arte OF INSERVICE INSPECtions and employed by the National Board of Earned employed by the inspected the country and the country and the country are to the country and the country are to the country are to the country are the country are to the country are the country a	Boiler and Pressure Vess  Martford Stead  components described in  and stead	this Owner's Report ate that to the best of				
I, the undersigned, ho the State or Province of of Hi during the period /// my knowledge and belief, t	CERTIFICATION  Iding a valid commission in Iowa  artford, Conn.  - 18- 99  the Owner has performed en accordance with the Inspector in Iowa	ssued by the National Board of E and employed by have inspected the control of to 1-12-00 examinations and taken corrective requirements of the ASME Code or his employer makes any warrance.	Boiler and Pressure Vess y Hartford Stead components described in , and ste e measures described in e, Section XI.	this Owner's Report ate that to the best of this Owner's Report in the concerning the				
I, the undersigned, ho the State or Province of of Hi during the period /// my knowledge and belief, to By signing this certific examinations and corrective	CERTIFICA  Iding a valid commission i  Iowa  artford, Conn.  - 18- 99  he Owner has performed e accordance with the  cate neither the Inspector n	ssued by the National Board of E and employed by have inspected the contractions and taken corrective requirements of the ASME Code for his employer makes any warrances Owner's Report, Furthermore,	Boiler and Pressure Vess y Hartford Stead components described in , and stead e measures described in e, Section XI.  anty, expressed or implied neither the Inspector no	at this Owner's Report ate that to the best of this Owner's Report in ed, concerning the or his employer shall be				
I, the undersigned, ho the State or Province of of Hi during the period /// my knowledge and belief, to By signing this certific examinations and corrective	CERTIFICA  Iding a valid commission i  Iowa  artford, Conn.  - 18- 99  he Owner has performed e accordance with the  cate neither the Inspector n	arte of Inservice Inspectors and employed by the National Board of Examinations and taken corrective requirements of the ASME Code	Boiler and Pressure Vess y Hartford Stead components described in , and stead e measures described in e, Section XI.  anty, expressed or implied neither the Inspector no	at this Owner's Report this Owner's Report in this Owner's Report in this Owner's Report in this oncerning the or his employer shall be				
I, the undersigned, ho the State or Province of of Hi during the period /// my knowledge and belief, to By signing this certific examinations and corrective	CERTIFICATION  Iding a valid commission in Iowa  artford, Conn.  - 18- 99  the Owner has performed en accordance with the cate neither the Inspector in the eneasures described in thing personal injury or proper	ssued by the National Board of E and employed by have inspected the control of the ASME Code or his employer makes any warrants of the ASME Code or his employer makes any warrants Owner's Report. Furthermore, rty damage or a loss of any kind a	Boiler and Pressure Vess  Martford Stead  components described in  and stead  e measures described in the  e, Section XI.  anty, expressed or implied  neither the Inspector no  arising from or connected	ate that to the best of this Owner's Report in this Owner's Report in ed, concerning the or his employer shall be ed with this inspection.				
I, the undersigned, ho the State or Province of of Hi during the period my knowledge and belief, to By signing this certific examinations and corrective liable in any manner for an	CERTIFICA  Iding a valid commission i  Iowa  artford, Conn.  - 18- 99  he Owner has performed e accordance with the  cate neither the Inspector n	ssued by the National Board of E and employed by have inspected the control of the ASME Code or his employer makes any warrants of the ASME Code or his employer makes any warrants Owner's Report. Furthermore, rty damage or a loss of any kind a	Boiler and Pressure Vess  Martford Stead  components described in  and stead  e measures described in  e, Section XI.  anty, expressed or implied  neither the Inspector no  arising from or connected	ate that to the best of this Owner's Report in this Owner's Report in ed, concerning the or his employer shall be ed with this inspection.				
I, the undersigned, ho the State or Province of of Hi during the period My knowledge and belief, to  By signing this certific examinations and corrective liable in any manner for an Inspector's Signature	CERTIFICA  Iding a valid commission i  Iowa  artford, Conn.  - 18- 99  the Owner has performed e accordance with the exact neither the Inspector neither the Inspector neither the Inspector neither second in this personal injury or proper  Commissions	ssued by the National Board of E and employed by have inspected the contractions and taken corrective requirements of the ASME Code for his employer makes any warrances Owner's Report, Furthermore,	Boiler and Pressure Vess  Martford Stead  components described in  and stead  e measures described in  e, Section XI.  anty, expressed or implied  neither the Inspector no  arising from or connected	ate that to the best of this Owner's Report in this Owner's Report in ed, concerning the or his employer shall be ed with this inspection.				
I, the undersigned, ho the State or Province of of Hi during the period My knowledge and belief, to  By signing this certific examinations and corrective liable in any manner for an Inspector's Signature	CERTIFICATION  Iding a valid commission in Iowa  artford, Conn.  - 18- 99  the Owner has performed en accordance with the cate neither the Inspector in the eneasures described in thing personal injury or proper	ssued by the National Board of E and employed by have inspected the control of the ASME Code or his employer makes any warrants of the ASME Code or his employer makes any warrants Owner's Report. Furthermore, rty damage or a loss of any kind a	Boiler and Pressure Vess  Martford Stead  components described in  and stead  e measures described in  e, Section XI.  anty, expressed or implied  neither the Inspector no  arising from or connected	ate that to the best of this Owner's Report in this Owner's Report in ed, concerning the or his employer shall be ed with this inspection.				

COMPONENT ID /	MWO#	SUS#	Replaced	Replacement	Replacement	VT-3
ISI DESIGNATION			Model / Serial #	Model / Serial #	Year	Presevice
					Built	Report #
DBA-004-SS-034 /	1109007	50.00	PSA-3/	Lisega 3038 /	1999	P99004
RSA-K014			602	99614403-73	ł	
DBA-004-SS-035 /	1109009	50.00	PSA-3 /	Lisega 3052 /	1997	P99005
RSA-K024AA			603	97614262-09		
DBA-004-SS-036 (Note #1) /	1109008	50.00	PSA-3/	Lisega 3052 /	1997	P99006
RSA-K024AB			1902	97614263-07		
DBA-006-SS-029 (Note #6) /	1109012	55.00	PSA-1/	Lisega 3038 /	1999	P99007
CRA-K017AA			1157	99614403-43		
DBA-006-SS-030 /	1109013	55.00	PSA-1/	Lisega 3038 /	1999	P99008
CRA-K015A			1304	99614403-42		
DBA-007-SS-071 /	1109014	50.00	PSA-3/	Lisega 3052 /	1997	P99009
RSB-K009A			605	97614263-15		
DBA-009-SS-002B /	1109015	62.00	PSA-1 /	Lisega 3038 /	1999	P99010
N/A			1288	99614403-18		
DCA-001-SSA-002 (Note #2) /	1109016	64.01	PSA-35 /	Lisega 3072 /	1998	P99011
RCA-K026			419	98614153-51		
DCA-001-SSA-006/	1109017	64.01	PSA-35 /	Lisega 3072 /	1998	P99012
RCA-K042A			9551	98614153-68	]	
DCA-001-SSA-007/	1109018	64.01	PSA-35 /	Lisega 3072 /	1998	P99013
RCA-K042B	<u>                                     </u>		427	98614153-44		
DCA-001-SSA-010A /	1109019	64.01	PSA-3/	Lisega 3052 /	1997	P99014
RBA-K005A			1898	97614263-12		
DCA-001-SSA-010B/	1109020	64.01	PSA-3/	Lisega 3052 /	1997	P99015
RBA-K005B			1900	97614263-10		
DCA-001-SSA-011 (Note #4) /	1109021	64.01	PSA-35 /	Lisega 3072 /	1998	P99016
RCA-K031	1		9552	98614153-45		
DCA-001-SSB-002 /	1109022	64.01	PSA-35 /	Lisega 3072 /	1998	P99017
RCB-K029			420	98614153-64	¥ 71 ° °	
DCA-001-SSB-006 (Note #4) /	1109023	64.01	PSA-35/	Lisega 3072 /	1998	P99018
RCB-K045A	1	·	418	98614153-52	1777	
DCA-001-SSB-007 /	1109024	64.01	PSA-35/	Lisega 3072 /	1998	P99019
RCB-K045B		,	428	98614153-50		

COMPONENT ID /	MWO#	SUS#	Replaced	Replacement	Replacement	VT-3
ISI DESIGNATION			Model / Serial #	Model / Serial #	Year	Presevice
	ļ				Built	Report #
DCA-001-SSB-010A /	1109025	64.01	PSA-3 /	Lisega 3052 /	1997	P99020
RBB-K005A			26374	97614263-02		
DCA-001-SSB-010B /	1109026	64.01	PSA-3/	Lisega 3052 /	1997	P99021
RBB-K005B			1896	97614263-13		
DCA-001-SSB-011/	1109027	64.01	PSA-35 /	Lisega 3072 /	1998	P99022
RCB-K034	1		7826	98614153-38		
DCA-004-SSA-001 (Note #4) /	1109028	64.01	PSA-35 /	Lisega 3072 /	1998	P99023
RPA-K003			421	98614153-66		
DCA-004-SSA-003 /	1109029	64.01	PSA-35 /	Lisega 3072 /	1998	P99024
RCA-K017			410	98614153-61		
DCA-004-SSA-004 (Note #8) /	1109030	64.01	PSA-100 /	Lisega 3082 /	1998	P99025
RPA-K002			352	98614043-17		
DCA-004-SSA-005 /	1109031	64.01	PSA-35 /	Lisega 3072 /	1998	P99026
RPA-K004A			424	98614153-37		
DCA-004-SSA-008 /	1109032	64.01	PSA-10/	Lisega 3062 /	1999	P99027
RCA-K007A			1532	99614213-46		
DCA-004-SSA-009 (Note #9) /	1109033	64.01	PSA-35 /	Lisega 3072 /	1998	P99028
RCA-K007B			369	98614153-42		
DCA-004-SSB-001 /	1109034	64.01	PSA-35 /	Lisega 3072 /	1998	P99029
RPB-K003			414	98614153-46		
DCA-004-SSB-003 /	1109035	64.01	PSA-35 /	Lisega 3072 /	1998	P99030
RCB-K020			422	98614153-54		
DCA-004-SSB-005 /	1109036	64.01	PSA-35 /	Lisega 3072 /	1998	P99031
RPB-K004A			423	98614153-55		
DCA-004-SSB-008 /	1109037	64.01	PSA-10/	Lisega 3062 /	1999	P99032
RCB-K010A			1533	99614213-09		
DCA-004-SSB-009 /	1109038	64.01	PSA-35 /	Lisega 3072 /	1998	P99033
RCB-K010B			417	98614153-60		
DCA-006-SS-048 /	1109039	61.00	PSA-3/	Lisega 3052 /	1997	P99034
CUA-K013AA		. /	607	97614263-06		
DCA-006-SS-049 /	1109040	61.00	PSA-3/	Lisega 3052 /	1997	P99035
CUA-K013AB			608	97614263-11		

COMPONENT ID / ISI DESIGNATION	MWO#	SUS#	Replaced Model / Serial #	Replacement Model / Serial #	Replacement Year Built	VT-3 Presevice Report #
DCA-006-SS-050 /	1109041	61.00	PSA-3 /	Lisega 3052 /	1997	P99036
CUA-K020AA			1905	97614263-18		
DCA-014-SS-072 (Note #2) /	1109048	61.00	PSA-3/	Lisega 3052 /	1997	P99037
CUB-K007			606	97614263-16		
DLA-002-SS-004 /	1109066	45.01	PSA-10/	Lisega 3062 /	1999	P99038
FWB-K029			1514	99614213-08		
DLA-002-SS-005 /	1109067	45.01	PSA-3/	Lisega 3052 /	1997	P99039
FWB-K020A			610	97614263-17		
DLA-002-SS-006 /	1109068	45.01	PSA-3/	Lisega 3052 /	1997	P99040
FWB-K017			611	97614263-08		
DLA-002-SS-007 /	1109069	45.01	PSA-10 /	Lisega 3062 /	1999	P99041
FWC-K026A	1100000	46.01	1515	99614213-23		
DLA-002-SS-008 /	1109070	45.01	PSA-3 /	Lisega 3052 /	1997	P99042
FWC-K017			612	97614263-01		
DLA-002-SS-009 /	1109071	45.01	PSA-3/	Lisega 3052 /	1997	P99043
FWC-K014			26373	97614263-14		
DLA-003-SS-001 /	1109072	52.00	PSA-1/	Lisega 3038 /	1999	P99044
PSA-K021A			1159	99614403-35		
DLA-003-SS-002 /	1109073	52.00	PSA-10/	Lisega 3052 /	1999	P99045
PSA-K015	1100074	50.00	1516	99614613-74		)
DLA-003-SS-003 (Note #1) /	1109074	52.00	PSA-3 /	Lisega 3052 /	1997	P99046
PSA-K009A	1100077	40.00	26375	97614263-05		
DLA-004-SS-014 / RHB-K015AA	1109077	49.00	PSA-35 /	Lisega 3062 /	1999	P99047
DLA-004-SS-015 /	1109078	49.00	430 PSA-10/	99614523-36	1000	200010
RHB-K015AB	1109078	49.00	1513	Lisega 3062 /	1999	P99048
DLA-005-SS-010 /	1109979	49.00	I	99614213-48	1000	- D00040
RHC-K016A	11099/9	49.00	PSA-10 /	Lisega 3062 /	1999	P99049
DLA-005-SS-011 /	1100000	40.00	14665	99614213-16	1000	700055
RHC-K008A	1109080	49.00	/ PSA-35 /	Lisega 3072 /	1998	P99050
	1100001	40.00	411	98614153-48	1000	2000
DLA-006-SS-012/	1109081	49.00	PSA-10/	Lisega 3062 /	1999	P99051
RHD-K015A	<u> </u>		1511	99614213-43	·	

COMPONENT ID /	MWO#	SUS#	Replaced	Replacement	Replacement	VT-3
ISI DESIGNATION			Model / Serial #	Model / Serial #	Year	Presevice
isi pesidiwi ion			·		Built	Report #
DLA-006-SS-013 /	1109082	49.00	PSA-35 /	Lisega 3072 /	1998	P99052
RHD-K007A	1.0,000		412	98614153-47		
EBA-X7A-SS-0A1 (Note #2) /	1109083	83.01	PSA-35 /	Lisega 3072 /	1998	P99053
MSA-K011A			9547	98614153-41		
EBA-X7A-SS-0A2 (Note #2) /	1109084	83.01	PSA-35 /	Lisega 3072 /	1998	P99054
MSA-K011B			9550	98614153-40		
EBA-X7B-SS-0B1(Note #1) /	1109085	83.01	PSA-35 /	Lisega 3072 /	1998	P99055
MSB-K012A			413	98614153-67		
EBA-X7B-SS-0B2 /	1109086	83.01	PSA-35 /	Lisega 3072 /	1998	P99056
MSB-K012B			433	98614153-39		
EBA-X7C-SS-0C1 /	1109087	83.01	PSA-35 /	Lisega 3072 /	1998	P99057
MSC-K011A	1		415	98614153-65		
EBA-X7C-SS-0C2 /	1109088	83.01	PSA-35 /	Lisega 3072 /	1998	P99058
MSC-K011B			416	98614153-43		
EBA-X7D-SS-0D1 /	1109089	83.01	PSA-35 /	Lisega 3072 /	1998	P99059
MSD-K010A			9553	98614153-63		
EBA-X7D-SS-0D2 /	1109090	83.01	PSA-35 /	Lisega 3072 /	1998	P99060
MSD-K010B			7763	98614153-59		
GBB-013-SS-016/	1109091	51.00	PSA-1/	Lisega 3038 /	1999	P99061
CSB-CE048			1286	99614403-1		
GBC-006-SS-017/	1109092	83.04	PSA-3/	Lisega 3052 /	1997	P99062
N/A			1891	97614263-04		
GBC-006-SS-250 (Note #1) /	1109093	83.04	PSA-10/	Lisega 3062 /	1999	P99063
N/A			9745	99614213-29		
GBC-006-SS-251 /	1109094	83.04	PSA-10/	Lisega 3062 /	1999	P99064
N/A			9725	99614213-07		
GBC-006-SS-252 /	1109095	83.04	PSA-10/	Lisega 3062 /	1999	P99065
N/A			9725	99614213-44		
GBC-006-SS-253 /	1109096	83.04	PSA-10/	Lisega 3062 /	1999	P99066
N/A	1 ' ' '	1.7 +	9724	99614213-20		
GBC-006-SS-254 /	1109097	83.04	PSA-10/	Lisega 3062 /	1999	P99067
N/A			9734	99614213-21		

COMPONENT ID /	MWO#	SUS#	Replaced	Replacement	Replacement	VT-3
ISI DESIGNATION	]		Model / Serial #	Model / Serial #	Year	Presevice
					Built	Report #
GBC-007-SS-263 /	1109098	83.04	PSA-10/	Lisega 3062 /	1999	P99068
N/A			9739	99614213-49		
GBC-007-SS-264 /	1109099	83.04	PSA-10/	Lisega 3062 /	1999	P99069
N/A			9728	99614213-11		
GBC-007-SS-265 /	1109100	83.04	PSA-35 /	Lisega 3072 /	1998	P99070
N/A			9546	98614153-49		
GBC-007-SS-266A/	1109101	83.04	PSA-10 /	Lisega 3062 /	1999	P99071
N/A	1		9230	99614213-12	ļ	
GBC-007-SS-266B/	1109102	83.04	PSA-10/	Lisega 3062 /	1999	P99072
N/A			14667	99614213-13		
GBC-007-SS-267 /	1109103	83.04	PSA-10/	Lisega 3062 /	1999	P99073
N/A			9736	99614213-26		
GBC-007-SS-268 /	1109104	83.04	PSA-10/	Lisega 3062 /	1999	P99074
N/A			9742	99614213-36		
GBC-008-SS-021 (Note #1) /	1109105	83.04	PSA-10/	Lisega 3062 /	1999	P99075
N/A			1517	99614213-25		
GBC-008-SS-045 (Note #1) /	1109106	83.04	PSA-10/	Lisega 3062 /	1999	P99076
N/A			1531	99614213-40		
GBC-008-SS-259 /	1109107	83.04	PSA-10/	Lisega 3062 /	1999	P99077
N/A			9719	99614213-35		
GBC-008-SS-260A /	1109108	83.04	PSA-10/	Lisega 3062 /	1999	P99078
N/A			14666	99614213-27		
GBC-008-SS-260B /	1109109	83.04	PSA-10/	Lisega 3062 /	1999	P99079
N/A			9731	99614213-32		
GBC-008-SS-261 /	1109110	83.04	PSA-10/	Lisega 3062 /	1999	P99080
N/A	ļ		9726	99614213-34		
GBC-008-SS-262 (Note #1)/	1109111	83.04	PSA-35 /	Lisega 3072 /	1998	P99081
N/A			9548	98614153-62		
GBC-008-SS-277 /	1109112	83.04	PSA-10/	Lisega 3062 /	1999	P99082
N/A	<u> </u>		9737	99614213-38		•
GBC-009-SS-023 (Note #3&7)/	1109113	83.04	PSA-10/	Lisega 3052 /	1999	P99083
N/A			1518	99614613-70	1	`.

COMPONENT ID /	MWO#	SUS#	Replaced	Replacement	Replacement	VT-3
ISI DESIGNATION			Model / Serial #	Model / Serial #	Year	Presevice
					Built	Report #
GBC-009-SS-041 /	1109114	83.04	PSA-10/	Lisega 3062 /	1999	P99084
N/A			1519	99614213-30		
GBC-009-SS-271 /	1109115	83.04	PSA-10/	Lisega 3062 /	1999	P99085
N/A			1520	99614213-24		
GBC-009-SS-272 /	1109116	83.04	PSA-10/	Lisega 3052 /	1999	P99086
N/A			9732	99614613-69		
GBC-009-SS-273A /	1109117	83.04	PSA-10/	Lisega 3062 /	1999	P99087
N/A			9735	99614213-47		
GBC-009-SS-273B /	1109118	83.04	PSA-10/	Lisega 3062 /	1999	P99088
N/A			9740	99614213-22		
GBC-009-SS-274 /	1109119	83.04	PSA-35 /	Lisega 3072 /	1998	P99089
N/A			7764	98614153-58		
GBC-009-SS-275 (Note #1) /	1109120	83.04	PSA-35 /	Lisega 3072 /	1998	P99090
N/A			7827	98614153-56		
GBC-009-SS-278 /	1109121	83.04	PSA-10/	Lisega 3062 /	1999	P99091
N/A			9738	99614213-28		
GBC-010-SS-024 /	1109122	83.04	PSA-10/	Lisega 3062 /	1999	P99092
N/A			1521	99614213-45		
GBC-010-SS-025 (Note #1) /	1109123	83.04	PSA-10/	Lisega 3062 /	1999	P99093
N/A			1522	99614213-15		D00004
GBC-010-SS-269 (Note #5) /	1109124	83.04	PSA-10/	Lisega 3062 /	1999	P99094
N/A			9741	99614213-33		70000
GBC-010-SS-270A /	1109125	83.04	PSA-10/	Lisega 3062 /	1999	P99095
N/A			14663	99614213-10		
GBC-010-SS-270B /	1109126	83.04	PSA-10/	Lisega 3062 /	1999	P99096
N/A			17426	99614213-42		
GBC-010-SS-276 (Note #5) /	1109127	83.04	PSA-10 /	Lisega 3062 /	1999	P99097
N/A			1527	99614213-41		
GBC-011-SS-026 (Note #1) /	1109128	83.04	PSA-10/	Lisega 3062 /	1999	P99098
N/A	2 1 7 1 1 1		. 1523	99614213-14		
GBC-011-SS-027 /	1109129	83.04	PSA-10/	Lisega 3062 /	1999	P99099
N/A			1524	99614213-37		

COMPONENT ID / ISI DESIGNATION	MWO#	SUS#	Replaced Model / Serial #	Replacement Model / Serial #	Replacement Year Built	VT-3 Presevice Report #
GBC-011-SS-032 / N/A	1109130	83.04	PSA-10 / 1525	Lisega 3062 / 99614213-18	1999	P99100
GBC-011-SS-255 / N/A	1109131	83.04	PSA-10 / 1526	Lisega 3062 / 99614213-19	1999	P99101
GBC-011-SS-256 / N/A	1109132	83.04	PSA-10 / 9721	Lisega 3062 / 99614213-17	1999	P99102
GBC-011-SS-257 / N/A	1109133	83.04	PSA-35 / 7762	Lisega 3072 / 98614153-53	1998	P99103
GBC-011-SS-258A / N/A	1109134	83.04	PSA-10 / 9733	Lisega 3062 / 99614213-39	1999	P99104
GBC-011-SS-258B (Note #1) / N/A	1109135	83.04	PSA-10 / 9729	Lisega 3062 / 99614213-31	1999	P99105

#### **NOTES:**

- 1. Shroud was removed to increase radial clearance. The shroud is not a load-bearing component and its removal does not affect the snubber's function.
- 2. Snubber was installed backwards as compared to original design, i.e., the extension piece is on the opposite end. This change was needed for radial clearance. Drawing has been revised accordingly.
- 3. Reworked end attachment by welding (FCN-2). Addition load bearing material (SA-479, Heat # 8650577, manufactured by LTV in 1986, & purchased on P.O. S26026) was used on end attachment and welded with P8/P1-AT-Ag rev. 8.
- 4. Structural steel end attachment was trimmed to allow adequate swing clearance (FCN-2 & FCN-3).
- 5. Replaced one wire lock end attachment bolt (1/2" X 1 ½", part # 1801603-01, purchased from PSA in 1985 on P.O. 21525).
- 6. Replaced load-bearing bolt (this bolt is used as a load pin). Bolt is a ½" X 3", A-193 B7, Heat #C66935, manufactured 1992 and purchased from Cardinal on P.O. S68216.
- 7. Replaced snubber load pin. New 1" load pin was manufactured by ARMCO in 1986, heat #656177 and was purchased on P.O. S37978. Also replaced threaded bushing manufactured by Lisega in 1999, heat code Z598, purchased on P.O. T42043.
- 8. Adapter & end paddle was replaced prior to installation (snubber was supplied with wrong size adapter & end paddle). Both the adapter & end paddle was purchased 1999 from Lisega on P.O. T44503. End paddle heat code is A86 and adapter heat code is Z589.
- 9. Moved structural steel end attachment to provide additional clearance for new snubber. Weld procedure P1-AT-Lh rev. 8 was used to weld end attachment to new location.

THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT May 23, 1998 through December 01, 1999

Part G, Page 54 of 80

This page intentionally blank

1.	Owners	IES Industrie		<del></del>	Date 11/30	)/99			
	P. O. Box	Nam x 351, Cedar Rap Add	oids, IA 52406	· · · · · · · · · · · · · · · · · · ·	Sheet 1	of	2 .		
2.	Plant	Duane Arnok	d Energy Center		Unit 1				
	3277 DA	EC Road, Palo, I Addi			Repair Organization to P	111414 O. No., Job	No., etc.		
<ul><li>3.</li><li>4.</li></ul>	3277 DA	formed by <u>IES U</u> Name EC Road, Palo, L tion of System:	A 52324		Type Code Symbol Stamp Authorization No. Expiration Date  None None				
5.		cable Construction of			19 68 Edition Wolacements 1989-A92	768 Adder	nda	Code Case	
6.	Identifica	tion of Compone	nts Repaired or Re	placed and Replace	ment Components 1/24/	(D)	-		
	Identifica	tion of Compone  Name of  Manufacturer	Manufacturer Serial No.	placed and Replace  National Board No.	ment Components 1/24/	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or	
Co	Identifica	non of Compone Name of	mts Repaired or Re Manufacturer	eplaced and Replace	ment Components 1/24/	(a)	Replaced, or	Code Stamped	
Co	Identifica	Name of Manufacturer	Manufacturer Serial No.	placed and Replace National Board No.	Ment Components 1/24/ Other Identification	Year Built	Replaced, or Replacement	Code Stamped (YES or NO)	
Co	Identifica	Name of Manufacturer	Manufacturer Serial No.	placed and Replace National Board No.	Ment Components 1/24/ Other Identification	Year Built	Replaced, or Replacement	Code Stamped (YES or NO)	
Co	Identifica	Name of Manufacturer	Manufacturer Serial No.	placed and Replace National Board No.	Ment Components 1/24/ Other Identification	Year Built	Replaced, or Replacement	Code Stamped (YES or NO)	
Co	Identifica	Name of Manufacturer	Manufacturer Serial No.	placed and Replace National Board No.	Ment Components 1/24/ Other Identification	Year Built	Replaced, or Replacement	Code Stamped (YES or NO)	
Co	Identifica  Jame of mponent  Valve Body	Name of Manufacturer	Manufacturer Serial No.  S/N 176	placed and Replace National Board No.	Other Identification  PSV 4402	Year Built	Replaced, or Replacement	Code Stamped (YES or NO)	
Co	Identifica  Jame of mponent  Valve Body	Name of Manufacturer  Target Rock  n of Work:	Manufacturer Serial No.  S/N 176	National Board No.	Other Identification  PSV 4402  ced with S/N 176.	Year Built	Replaced, or Replacement  Replacement	Code Stamped (YES or NO)	

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

٠.,

### FORM NIS-2 (Back)

9. Remarks: Main Valve Body S/N 201 was examined and found to have a ding on the gasket area. S/N 201 was replaced
Applicable Manufacturer's Data Reports to be attached

with S/N 176 which was repaired and documented on NIS-2 16-98-01. A VT-2 (System Leakage Test) (199107) was completed and accepted.

	CERTIFICATE OF CO	MPLIAN	(CE			-
We certify that the statements made	e in the report are correct and thi		replace			v (* • • • • • • • • • • • • • • • • • •
conforms to the rules of the ASME	Code, Section XI.	(1	(repair or replace	ement)	1000	and high a line
Type Code Symbol Stamp	None					en e
Certificate of Authorization No.	None	_ Expirati	tion Date	N/A		J.
Signed Scott/rester Owner or O	GL Equipment Monitoring Owner's Designee, Title	_ Date	Dec.		19 <u>99</u>	a reduced and the second and the sec
I, the undersigned, holding a valid conthe State or Province of	Iowa	nal Board o and emp	of Boiler and Proppley	ressure Vessel In: Hartford Steam B	Boiler I &	Ł I Со.
of Hartford, during the period //- my knowledge and belief, the Owne accordance with the requirements of	F-95 to /2-2 er has performed examinations ar	2-55		ents described in , and stat ures described in	ate that to	the best of
By signing this certificate neither the examinations and corrective measure liable in any manner for any persona	res described in this Owner's Rep al injury or property damage or a	port. Furth a loss of an	thermore, neithern ny kind arising i	er the Inspector na from or connecte	nor his em ted with th	nployer shall be
Inspector's Signature	Nationa	1 Board, S	tate, Province,	E4 and Endorsemen	ats	
Date	, 19 <i>99</i>					and the state of t

1.	Owners	Owners IES Industries Name			Date	12/03/	1999			
	P. O. Box	351, Cedar Rap			Sheet	1	of	2		
2.	Plant	Duane Arnoid	Energy Center	<del></del>	Unit	1		T 25'	· .	
	3277 DA	EC Road, Palo, L Addr		-	PWO 1110278  Repair Organization to P. O. No., Job No., etc.					
<ul><li>3.</li><li>4.</li><li>5.</li><li>6.</li></ul>	3. Work Performed by IES Utilities, Inc.  Name  None  3277 DAEC Road, Palo, IA 52324  Identification of System:  Control Rod Drive - Class 1  S. (a) Applicable Construction Code  ASME III  19  68  Edition  W68  Addenda  Code Case  (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989-A92									
,	Name of omposent	Name of Manufacturer	Manufacturer Serial No.	National Board No		ser Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or	
Capso	crews (8ea)	General Electric	Pt .# 137C9293P001	N/A	1R21:	5 (26-15)	1986	Replacement	NO)	
CRD		General Electric	S/N 4337	N/A	1R215	5 (26-15)	1972	Replacement	YES	
	-									
7.	Descriptio	n of Work:	8ea. Socket Head	Capscrews and the	Control	Rod Drive were	replaced.	7	e ser dis	
8.	Tests Con	ducted:	Hydrostatic	Pneur	natic	Nom	inal Operati	ng Pressure	X	
		Other	Pressure	1023	psi	Test Temp	246	• <b>F</b>	PRIORIS	
m ne	ms i mroni	nental sheets in f	orm of lists, sketch	nes, or drawings ma ch sheet, and (3) ea	ny be used nch sheet	d, provided (1) size is numbered and	ze is 81/2 in.	x 11 in., (2) into	Formation	

9.	Remarks:	Under GE Sil 483 Rev. 1 (ref NG-92-0281) IES Utilities commitment was to replace all capscrews	with the new
		Applicable Manufacturer's Data Reports to be attached	

design Part # 137C9293P001. Location 1R215 (26-15) had not had the capscrews replaced, therefore it was necessary to replace all eight capscrews. A preservice VT-1 (P99134) was completed and accepted. In addition, the Control Rod Drive was replaced (S/N 4337). S/N 4337 had been previously installed at core location 30-31 and removed in 1995 under Work Order1080438 with no Section XI repair/replacement being completed. A VT-2 (199107) was completed and accepted.

CERTIFICATE OF CO	MPLIANCE	TINE WAY
We certify that the statements made in the report are correct and this	**************************************	AND THE
conforms to the rules of the ASME Code, Section XI.	(repair or replacement)	A STATE OF THE STA
Type Code Symbol Stamp None		naka n <b>aka</b>
Certificate of Authorization No. None	Expiration Date N/A	<b>经 等职</b> 业。 
Signed Si	Date Jan 13,	2000
		و و پوهاک تا شخصه است.
CERTIFICATE OF INSI		
I, the undersigned, holding a valid commission issued by the Nationa the State or Province of Iowa	al Board of Boiler and Pressure Vessel Ins and employed by Hartford Steam Bo	spectors and
uning the period $\sqrt{-1}$ - 90 to $\sqrt{-1}$	we inspected the components described in t	this Owner's Report
my knowledge and belief, the Owner has performed examinations an accordance with the requirements of the ASME Code, Section XI.	id taken corrective measures described in	te that to the best of this Owner's Report in
By signing this certificate neither the Inspector nor his employer male examinations and corrective measures described in this Owner's Repliable in any manner for any personal injury or property damage or a	DOIL. Furthermore neither the Inspector no	or his amplement that he
Inspector's Signature Commissions National	1872 ANE 1422 EA Il Board, State, Province, and Endorsements	2554 (1992) 21/2/2012 22/2013
Date 1-17-00 2000	bould, state, 1 to vince, and Engoisement	S

1.	Owners		IES Industries Name			12/03	/1999		
	P. O. Bo	x 351. Cedar Rap Add	oids, IA 52406		Sheet	1	of	2	
2.	Plant		d Energy Center	<del></del>	Unit	1			
	3277 DA	EC Road, Palo, I			CWO A44840				
<ol> <li>4.</li> </ol>	3277 DA	formed by <u>IES U</u> Name EC Road, Palo, I tion of System:	A 52324 Control Ro	d Drive Accumula	Repair Organization to P. O. No., Job No., etc.  Type Code Symbol Stamp Authorization No.  Expiration Date  None None				
5. 6.	(b) Appli	cable Construction of tion of Compone	on Code ASN Section XI Utilize onts Repaired or Re	ME VIII	19 68	Edition 932-A92 orients 60/	Adden	da	Code Case
Co	Name of emponent	Name of Manufacturer	Manufacturer Serial No.	National Board N		dentification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or
CRD \ccu	mulator	General Electric	S/N C0092	N/A	IS220 (30	-31)	1978	Replacement	NO) YES
			<del></del>				1		
7.	Descriptio	n of Work:	CRD Accumulate	or was replaced.					
7.	Descriptio	•	CRD Accumulate	or was replaced.	matic	Nom	inal Operation	ng Pressure	X

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

ាយញ្ជាប្រ.។

With the mail o

### FORM NIS-2 (Back)

9. Remarks:	Inspection of	the accumulator reve	aled some deter	ioration of interna	l plating on the er	nd caps. The accumu	·lata-
	Applicable M	anutacturer's Data R	eports to be atta	ched			tator
was <u>replac</u>	ed. A VT-2 (ref	Pag[4]) was comple	ted and accepted	<u>d.</u>		· ·	
		CERTIFICAT	TE OF COMPL	JIANCE		· 트립 :	
We certify that the	statements made	in the report are corr	rect and this	repla	cement	· marin	
conforms to the rui	les of the ASME	Code, Section XI.		(repair or repl			<del></del>
Type Code Symbo	l Stamp	None				ल्लांबर्न् समृद्धं ह	
Certificate of Auth	orization No.	None	Ex	piration Date	N/A	Standing Commence	
Signed &	The line	Fquipment Numer's Designee, Titl	Monitoring Da	te <u>/2-2</u>	20	19 <u>99</u>	
	Owner or O	wher's Designee, Titl	ie		/	All the second s	
						^ t	
		CERTIFICAT	E OF INSERV	ICE INSPECTION	אכ		
I, the undersigned, the State or Province	holding a valid co	ommission issued by lowa	the National Bo	ard of Boiler and	Pressure Vessel I	nspectors and	erio de la companya d
of	Hartford.				nartiord Steam	Boiler I & I Co.  n this Owner's Repor	<u> </u>
during the period	11-20	-99 to	1-3-	· Zan	and st	ate that to the best of	•
my knowledge and accordance with the	belief, the Owne	r has performed exan the ASME Code, Se	ninations and tal	ken corrective mea	sures described i	in this Owner's Repor	rt in
examinations and c	orrective measure	e Inspector nor his en es described in this O Il injury or property d	owner's Report. lamage or a loss	Furthermore, neit of any kind arisin	her the Inspector g from or connec	nor his employer shated with this inspection	ll be on.
Inspector	s Signature	Commissions	NB //87	R A N.E. ird. State. Province	1422 TA		
			racional Doa	id. State, Flovince	z, and Endorseme	mis	

. 79 2000

Date

, <b>i</b> .	Owners	110001163			Date	12/03	3/1999			
		Nan	ne		-					
	P. O. Bo	x 351, Cedar Raj Add	oids, IA 52406 Iress		Sheet	1	of _	2	· ·	
2.	Plant	Duane Arnol Nan	d Energy Center		Unit _				3d	
	3277 DA	EC Road, Palo, i			CWO A44687					
					Repair Orga	anization to P	. O. No., Job	No., etc.	* :	
<ol> <li>4.</li> </ol>	3277 DA	formed by <u>IES U</u> Name EC Road, Palo, I tion of System:	A 52324 Control Ro		Type Code Symbol Stamp Authorization No. Expiration Date None					
5. 6.	(b) Appli	cable Constructicable Edition of tion of Compone	on Code ASM		19 68	Edition	Adder	nda	Code Case	
Co	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.		Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or	
CRD \ccu	mulator	General Electric	S/N C0034	N/A	15220 (38	3-15)	1978	Replacement	NO) YES	
7.	Descriptio	n of Work:	CRD Accumulate	or was replaced.						
8.	Tests Cone	lucted:	Hydrostatic	Pneum	atic [	Nom	inal Operatir	ng Pressure	X	
		Other	Pressure	e 1440	_ psi T	est Temp	74	•F:		

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

9.	Remarks:	Inspection of the accumulator revealed some deterioration of internal plating on the end caps.  Applicable Manufacturer's Data Reports to be attached	The accumu	lator	
	was replace	d. A VT-2 (ref P99142) was completed and accepted.	• •	<b>:</b>	

CERTIFICATE OF COM	<b>IPLIANCE</b>	
We certify that the statements made in the report are correct and this		
conforms to the rules of the ASME Code, Section XI.	(repair or replacement)	
Type Code Symbol Stamp None		H. Berking (CO)
Certificate of Authorization No. None	Expiration Date N/A	Same and the same a
Signed Scott Research Equipment Monitoring	Date 12-20,	1999
Owner or Owner's Designee, Title	/	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
I, the undersigned, holding a valid commission issued by the Nationa the State or Province of Iowa	al Board of Boiler and Pressure Vessel In and employed by Hartford Steam E	Boiler I & I Co.
of Hartford, Conn. hav	e inspected the components described in	this Owner's Report
my knowledge and belief, the Owner has performed examinations an accordance with the requirements of the ASME Code, Section XI.	d taken corrective measures described in	er e
By signing this certificate neither the Inspector nor his employer make examinations and corrective measures described in this Owner's Repliable in any manner for any personal injury or property damage or a	ort. Furthermore, neither the Inspector n loss of any kind arising from or connecte	nor his employer shall be ed with this inspection.
Inspector's Signature National	Board, State, Province, and Endorsemen	119
Date/- 3		· ·

i.	Owners	IES Industries		- 1 · · · · · · · · · · · · · ·	Da	te	01/13/0	0	······································	
	P. O. Box	351, Cedar Rapi Addre	ds, IA 52406		She	eet	I	_ of	2	
2.	Plant	Duane Arnold Name		·· / / / · · · · · · · · · · · · · · ·	Un	it	1			· · · · · · · · · · · · · · · · · · ·
	3277 DA	EC Road, Palo, IA			Re	C pair Organization	MAR A		No., etc.	
3. 4.	Name 3277 DAEC Road, Palo, IA 52324 Identification of System: High Pr			ure Coolant In	Type Code Symbol Stamp Authorization No. Expiration Date None Vone None			16	- The way of the second	
<ul><li>5.</li><li>6.</li></ul>	(a) Appli (b) Appli	•	n Code ASN Section XI Utilize	ME P&V Draft d for Repairs o	19 r Repla	68 Editio	n	Adden		Code Case
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Boa	·	Other Identifica	ation	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or
Bonr	ict	Anchor Valve Co	0435-12B-2-2	N/A		MO2202		1971	Repaired	YES
7.	Description	on of Work:	MO2202 was dis	assembled and	l repaire	d.			•	
8.	Tests Con	iducted:	Hydrostatic		Pneuma	tic	Nomi	nal Operati	ng Pressure	
		Other	Pressur	re N/A	<b>.</b>	psi Test Ter	mp	N/A	°F	

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

9.

Remarks:

MO2202 was disassembled to repair for seat leakage. During re-assembly the bonnet was skim-cut to remove

			•
hammer marks and to provid	le clearance for the bonnet ring.	The skim cut was made on	he vertical surface of the bonnet. An
MT of the final machined su	rface was completed and accept	ed.	
	CERTIFICATE OF COM	<b>IPLIANCE</b>	· ·
We certify that the statements made	in the report are correct and this	гераіг	The state of the s
conforms to the rules of the ASME (	Code, Section XI.	(repair or replaceme	•
Type Code Symbol Stamp	None		が4 / <b>3 利</b> - 1 / 1 
Certificate of Authorization No.	None	Expiration Date	N/A
Signed SeoM/nesser Owner or Own	GL Equipment Monitoring vner's Designee, Title	Date Jun, /	2000
			A fine term allowed the control of t
	CERTIFICATE OF INSE	RVICE INSPECTION	The state of the s
I, the undersigned, holding a valid co		I Board of Boiler and Pressu	
the State or Province of of Hartford, (	ommission issued by the Nationa Iowa	I Board of Boiler and Pressu and employed by Harti	re Vessel Inspectors and ford Steam Boiler I & I Co. described in this Owner's Report
the State or Province of of Hartford, 0 during the period  -/7- 0	ommission issued by the Nationa  Iowa  Conn. hav	I Board of Boiler and Pressu and employed by Harti e inspected the components	ord Steam Boiler I & I Co.  described in this Owner's Report , and state that to the best of
the State or Province of of Hartford, O during the period /-/7- O my knowledge and belief, the Owner	Iowa Conn. to to to have has performed examinations an	I Board of Boiler and Pressu and employed by Harti e inspected the components	ord Steam Boiler I & I Co.  described in this Owner's Report , and state that to the best of
the State or Province of of Hartford, 0 during the period  -/7- 0	Iowa Conn. to to to have has performed examinations an	I Board of Boiler and Pressu and employed by Harti e inspected the components	ord Steam Boiler I & I Co.  described in this Owner's Report , and state that to the best of
the State or Province of of Hartford, of during the period /-/7- of my knowledge and belief, the Owner accordance with the requirements of By signing this certificate neither the examinations and corrective measure	Iowa  Conn. have to 1-17- has performed examinations and the ASME Code, Section XI.  Inspector nor his employer makes described in this Owner's Rep	I Board of Boiler and Pressur and employed by Hartie inspected the components d taken corrective measures des any warranty, expressed fort. Furthermore, neither the	described in this Owner's Report , and state that to the best of described in this Owner's Report in or implied, concerning the Inspector nor his employer shall be
the State or Province of of Hartford, 0 during the period /-/7- 0 my knowledge and belief, the Owner accordance with the requirements of  By signing this certificate neither the	Iowa  Conn. have to 1/2/7- has performed examinations and the ASME Code, Section XI.  Inspector nor his employer makes described in this Owner's Replaced in injury or property damage or a	and employed by Hartie inspected the components daken corrective measures des any warranty, expressed fort. Furthermore, neither the loss of any kind arising from	described in this Owner's Report , and state that to the best of described in this Owner's Report in or implied, concerning the Inspector nor his employer shall be a or connected with this inspection.
the State or Province of of Hartford, of during the period /-/7- of my knowledge and belief, the Owner accordance with the requirements of By signing this certificate neither the examinations and corrective measure liable in any manner for any persona	Iowa  Conn. have to 1/2/7- has performed examinations and the ASME Code, Section XI.  Inspector nor his employer makes described in this Owner's Replaced in injury or property damage or a	and employed by Hartie inspected the components daken corrective measures des any warranty, expressed fort. Furthermore, neither the loss of any kind arising from	described in this Owner's Report , and state that to the best of described in this Owner's Report in or implied, concerning the Inspector nor his employer shall be a or connected with this inspection.
the State or Province of of Hartford, of during the period /-/7- of my knowledge and belief, the Owner accordance with the requirements of By signing this certificate neither the examinations and corrective measure	Iowa  Conn. have to 1/2/7- has performed examinations and the ASME Code, Section XI.  Inspector nor his employer makes described in this Owner's Replaced in injury or property damage or a	I Board of Boiler and Pressur and employed by Hartie inspected the components d taken corrective measures des any warranty, expressed fort. Furthermore, neither the	described in this Owner's Report , and state that to the best of described in this Owner's Report in or implied, concerning the Inspector nor his employer shall be a or connected with this inspection.
the State or Province of of Hartford, of during the period /-/7- of my knowledge and belief, the Owner accordance with the requirements of By signing this certificate neither the examinations and corrective measure liable in any manner for any persona	Iowa  Conn. have to 1/2/7- has performed examinations and the ASME Code, Section XI.  Inspector nor his employer makes described in this Owner's Replaced in injury or property damage or a	and employed by Hartie inspected the components daken corrective measures des any warranty, expressed fort. Furthermore, neither the loss of any kind arising from	described in this Owner's Report , and state that to the best of described in this Owner's Report in or implied, concerning the Inspector nor his employer shall be a or connected with this inspection.

1.	Owners	IES Industri	es		Date 12/03	/1999		
		Nan	ne					
	P. O. Bo	x 351, Cedar Rap		S	heet 1	of	2	
		Add	ress			<del></del>		
2.	Plant	Duane Arnold Nam	i Energy Center	U	Init 1	·		<del>-</del>
	3 <b>277</b> DA	EC Road, Palo, I			CMAR	. A39181	-,	
		Add	ress	R	epair Organization to P.		No., etc.	
3.	Work Do	formed by IEC I	Tailliai T				A STATE OF THE PARTY OF THE PAR	Barris Park The
٥.	work Per	rformed by <u>IES U</u> Name	filities, Inc.		ype Code Symbol Stam	`		
Name 3277 DAEC Road, Palo, IA 5			A 52324		uthorization No.	No		
4.					xpiration Date	No	ne	F (***)
5.	(a) Appli	icable Construction	on Code ASN	ME VIII 19	68 Edition	Adder	nda	Code Case
_	(b) Appli	icable Edition of	Section XI Utilize	d for Repairs or Repla	cements 1989-A92			_ Code Case
6.	Identifica	tion of Compone	nts Repaired or Re	placed and Replacem	ent Components 1/24/	77		
1	ame of mponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or
Bonne		Anchor Valve Co	HT 525 SK4	N/A	MO1909	1972	Repaired	YES
uide	Slot	Anchor Valve Co	HT 542 SK1	N/A	MO1909	1972	Repaired	YES
		<u>'</u>					Cupa care.co	
						<del> </del>		
7.	Descriptio	n of Work:	MO1909 was dis	assembled and repaire	d.		in general General Grand	
8.	Tests Cone	ducted:	Hydrostatic	Pneuma	tic Nom	inal Operati	ng Pressure	
		Other	Pressure	e	psi Test Temp		. ३७६) <b>०६</b> )	Services .
					:		. erit . e e	9.3.

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

9. Remarks: MO1909 was disassembled to repair for leak through. During disassembly it was necessary to break the bonnet

Applicable Manufacturer's Data Reports to be attached

loose which create a section of rolled metal on the bonnet. The rolled metal was removed. In addition a section of the guide slot was machined. A VT-3 Inservice (I99158) was completed per IWB-2500-1, Category B-M-2, Item No. B12.50 was completed and accepted. An MT was performed on the repaired area of the bonnet and guide slot and accepted. A VT-2 was not required because both repairs were not through pressure boundary.

CERTIFICATE OF CO	MPLIANCE						
We certify that the statements made in the report are correct and this		.t					
conforms to the rules of the ASME Code, Section XI.	(repair or replacement)						
Type Code Symbol Stamp None							
Certificate of Authorization No. None	Expiration Date N/A						
Signed Scatt Section GL Equipment Monitoring Owner or Owner's Designee, Title	Date <u>Sec. 20</u> 1999	e sementario de material esservario					
Owner of Owner's Designee, Title	<u>'</u>	And the second s					
		a property of the second second					
CERTIFICATE OF INS	ERVICE INSPECTION						
I, the undersigned, holding a valid commission issued by the Nation the State or Province of Iowa	al Board of Boiler and Pressure Vessel Inspector and employed by Hartford Steam Boiler I						
l · · · · · · · · · · · · · · · · · · ·	ve inspected the components described in this Ov	wner's Report					
during the period $1/-8-59$ to $12-9$	, and state that t	to the best of					
my knowledge and belief, the Owner has performed examinations ar accordance with the requirements of the ASME Code, Section XI.	ad taken corrective measures described in this Ov	wner's Report in					
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.							
Commissions NB 11872	A, NJI 1422 TA Il Board, Staté, Province, and Endorsements						
Inspector's Signature National	I Board, Staté, Province, and Endorsements						
Date 12-20- , 19 99							

1.	Owners	IES Industries		Da	te 12/03/1	999		
		Name						
	P. O. Box	351, Cedar Rapio	is, IA 52406	Sh	eet <u>1</u>	of	2	•
		Addre	ss					······································
2.	Plant	Duane Arnold	Energy Center	Un	it <u>1</u>			
		Name						
	3277 DAE	C Road, Palo, IA	52324		MWO 1			
		Addre	ess	Re	pair Organization to P.	O. No., Job	No., etc.	
3.	Work Peri	formed by <u>IES Ut</u>	ilities, Inc.	Ту	pe Code Symbol Stamp	Non	e .	riama, water under h
	Name			Αι	thorization No.	Non	e	
	3277 DAEC Road, Palo, IA 52324				piration Date	Non	e	
4.	Identificat	tion of System:		to Bypass Control V				
5.	(a) Applie	cable Constructio	n Code ANS	I B31.1 19		Adden	.da	Code Case.
6.	(h) Appli	cable Edition of S	Section XI Utilized	for Repairs or Repla	cements 1989-A92 Pent Components 1/24/6	9	-	
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or
					CDD 008 CC 166	1998	<u> </u>	NO)
3x3x	1/4" angle	Energy & Process Corp.	HT # V8-2992	N/A	EBD-008-SG-156	1	Repair	
1/2" F	late	Dubose National Energy	HT# R150	N/A	EBD-008-SG-156	1997	Repair	NO .
Line	Blinds	Abrasive Jet Tech	HT# 813J62170	N/A	SF 1054 & SF 1055	1999	Replacement	NO
6" R (4ea	F Flg. WN	Energy & Process Corp.	HT# NGS5	N/A	SF 1054 & SF 1055	1999	Replacement	NO
	a Bolting	Daniei Bolt	HT ID 212	N/A	SF 1054 & SF 1055	1973	Replacement	NO
	uts (48ea)	Cardinal	HT # KB5607	N/A	SF 1054 & SF 1055	1986	Replacement	NO
	Piping	Dubose National Energy	HT# N69530	N/A	SF 1054 & SF 1055	1999	Replacement	NO
10 "	Cap (2ea.)	Energy Process Corp.	HT#s 1458B/ 1473B	N/A	SF 1054 & SF 1055	1999	Replacement	NO
10 X	6 Cross	Energy Process Crop.	HT # 1459B	N/A	SF 1054 & SF 1055	1999	Replacement	NO
_			and C D. t	I1-4:				
7.	Description	on of Work:	2 <sup>nd</sup> Stage Reheat	ISOIBIION				
8.	Tests Cor	nducted:	Hydrostatic	Pneum	atic Non	ninal Operat	ing Pressure	х
		Othe	Pressu	re 970	_ psi Test Temp _	545	°F	e mener i
			\		_			

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

Applicable Manufacturer's Data Reports to be attached  of two line blinds (spectacle flanges) and the replacement of the existing 10x10x6 reducing tee with a 10x6 cross. In addition, a support guide was required to be modified. The welds completed within the ASME Section XI boundaries were welds W9- C, W11, W12, W13-C, W14, W15, and W16. All welds were radiographed and accepted. An inservice leak test was  performed in accordance with Code Case N-416-1 and accepted.  CERTIFICATE OF COMPLIANCE  We certify that the statements made in the report are correct and this repair/replacement  (repair or replacement)  Type Code Symbol Stamp  None  Expiration Date  N/A  Signed  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiller and Pressure Vessel Inspectors and and employed by Hartford Steam Boiler I & I Co.  have inspected the components described in this Owner's Report
a support guide was required to be modified. The welds completed within the ASME Section XI boundaries were welds W9-  C, W11, W12, W13-C, W14, W15, and W16. All welds were radiographed and accepted. An inservice leak test was  performed in accordance with Code Case N-416-1 and accepted.  CERTIFICATE OF COMPLIANCE  We certify that the statements made in the report are correct and this  conforms to the rules of the ASME Code, Section XI.  Type Code Symbol Stamp  None  Certificate of Authorization No.  None  Expiration Date  N/A  Signed  Signed  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of lowa and employed by Hartford Steam Boiler 1 & I Co.
C, W11, W12, W13-C, W14, W15, and W16. All welds were radiographed and accepted. An inservice leak test was  performed in accordance with Code Case N-416-1 and accepted.  CERTIFICATE OF COMPLIANCE  We certify that the statements made in the report are correct and this repair/replacement  (repair or replacement)  Conforms to the rules of the ASME Code, Section XI.  Type Code Symbol Stamp  None  Expiration Date  N/A  Signed  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of lowa and employed by Hartford Steam Boiler I & I Co.
C, W11, W12, W13-C, W14, W15, and W16. All welds were radiographed and accepted. An inservice leak test was  performed in accordance with Code Case N-416-1 and accepted.  CERTIFICATE OF COMPLIANCE  We certify that the statements made in the report are correct and this repair/replacement  (repair or replacement)  Conforms to the rules of the ASME Code, Section XI.  Type Code Symbol Stamp  None  Expiration Date  N/A  Signed  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of lowa and employed by Hartford Steam Boiler I & I Co.
CERTIFICATE OF COMPLIANCE  We certify that the statements made in the report are correct and this repair/replacement (repair or replacement)  Conforms to the rules of the ASME Code, Section XI.  Type Code Symbol Stamp  None  Certificate of Authorization No.  None  Expiration Date  N/A  Signed  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of lowa and employed by Hartford Steam Boiler I & I Co.
CERTIFICATE OF COMPLIANCE  We certify that the statements made in the report are correct and this repair/replacement (repair or replacement)  Conforms to the rules of the ASME Code, Section XI.  Type Code Symbol Stamp None  Certificate of Authorization No. None Expiration Date N/A  Signed Authorization No. Owner's Designee, Title  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Iowa and employed by Hartford Steam Boiler I & I Co.
CERTIFICATE OF COMPLIANCE  We certify that the statements made in the report are correct and this conforms to the rules of the ASME Code, Section XI.  Type Code Symbol Stamp  None  Certificate of Authorization No.  None  Expiration Date  N/A  Signed  Signed  Signed  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of lowa and employed by Hartford Steam Boiler I & I Co.
We certify that the statements made in the report are correct and this repair/replacement (repair or replacement)  Conforms to the rules of the ASME Code, Section XI.  Type Code Symbol Stamp None  Certificate of Authorization No. None Expiration Date N/A  Signed Authorization No. None Expiration Date N/A  Signed Authorization No. None Expiration Date N/A  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Iowa and employed by Hartford Steam Boiler I & I Co.
Certificate of Authorization No.  None  Expiration Date  N/A  Signed  Certificate of Authorization No.  Owner or Owner's Designee, Title  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of  I owa and employed by Hartford Steam Boiler I & I Co.
Certificate of Authorization No.  None  Expiration Date  N/A  Signed  Certificate of Authorization No.  Owner or Owner's Designee, Title  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Iowa and employed by Hartford Steam Boiler I & I Co.
Type Code Symbol Stamp  None    Certificate of Authorization No.   None   Expiration Date   N/A
Certificate of Authorization No.  None  Expiration Date  N/A  Signed  Signed  Signed  Signed  Signed  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of  Iowa and employed by Hartford Steam Boiler I & I Co.
Certificate of Authorization No.  None  Expiration Date  N/A  Signed  Signed  Signed  Signed  Signed  Signed  Signed  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Iowa and employed by Hartford Steam Boiler I & I Co.
Signed Stock State of Owner's Designee, Title  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Iowa and employed by Hartford Steam Boiler I & I Co.
Owner or Owner's Designee, Title  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Iowa and employed by Hartford Steam Boiler I & I Co.
Owner or Owner's Designee, Title  CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Iowa and employed by Hartford Steam Boiler I & I Co.
CERTIFICATE OF INSERVICE INSPECTION  I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Iowa and employed by Hartford Steam Boiler I & I Co.
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Iowa and employed by Hartford Steam Boiler I & I Co.
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Iowa and employed by Hartford Steam Boiler I & I Co.
the State or Province of Iowa and employed by Hartford Steam Boiler I & I Co.
the State or Province of Iowa and employed by Hartford Steam Boiler I & I Co.
of Hartford, Conn. have inspected the components described in this Owner's Report
· · · · · · · · · · · · · · · · · · ·
during the period 10-18-55 to 12-15-99, and state that to the best of
my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in
accordance with the requirements of the ASME Code, Section XI.
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the
examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be
liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Commissions NB 11872 ANF 1422 IA
Inspector's Signature  Commissions  NB 11872 ANF 1422 IA  National Board, State, Province, and Endorsements

, 19 <u>99</u>

Date

l.	Owners	IES Industrie	es		Date 12/0:	3/1999		
		Nam	е					
	P. O. Bo	x 351, Cedar Rap	ids. IA 52406		Sheet 1	of	2	· · ·
		Addı	ress	<del></del>	<del></del>	— `` <u> </u>		
2.	Plant	Duane Arnoid	Energy Center	ī	Jnit 1			
		Nam						
	3277 DA	EC Road, Palo, L	A 52324		MWO	1111411		ಷ್ಟ್ರವರ್ಷ
•		Addr		F	Repair Organization to P		No eta	
3.	Work Per	rformed by <u>IES U</u>	Itilities Inc					ative for a
		Name	titues, me.		Type Code Symbol Stam Authorization No.	•	ne	
	3277 DAEC Road, Palo, IA		A 52324		Expiration Date	No		
4.	Identifica	tion of System:	MSL Drain	s – Class 2	Apriation Date	No	ne	
5.	(a) Appli	icable Construction	on Code ANS	I B31.1	9 67 Edition	Adder	nda	Code Co
_	(b) Appl	icable Edition of	Section XI Utilized	for Repairs or Rep	acements 1010 A02	<del></del>		_ Code Cas
6.	Identifica	tion of Compone	nts Repaired or Re	placed and Replacer	nent Components /24	100	-	****
	ame of mponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or	ASME Code Stamped
3" D:-							Replacement	(YES or NO)
2" Pip	_	Energy & Process Corporation	HT # 442617	N/A	FO 1064A/B/C/D/E	1999	Replacement	NO
	uplings	Energy & Process Corporation	HT # 526953	N/A	FO 1064A/B/C/D/E	1999	Replacement	NO
Insert	" Reducing	Energy & Process Corporation	HT # 717734	N/A	FO 1064A/B/C/D/E	1999	Replacement	NO
2" EBI 2" Elbe		Velan Valve	Heat Code N-C	N/A	FO 1064E (V03-0322)	1992	Replacement	NO
		Capitol/Chicago Tube	Heat Code M974	N/A	FO 1064E	1973	Replacement	NO
2" Tee		HUB Inc.	Heat Code S388	N/A	FO 1064E	1981	Replacement	NO
2" Cou	pting	Captiol/Chicago Tube	Heat # 8889625	N/A	FO 1064E	1983	Replacement	NO
2" Pipi	ing	Dubose National Energy Services	Heat # 403552	N/A	FO 1064E	1993	Replacement	NO
Plate 3	/8" (A36)	HUB Inc.	Heat # B8124	N/A	FO 1064A/B/C/D/E	1990	Danta	1
3" x 3" angle (.		Energy & Process	Heat # V8-2992	N/A	FO 1064A/B/C/D/E	1998	Replacement Replacement	NO NO
51	/16" (A36)	Corporation Energy & Process Corporation	Heat # R2529	N/A	FO 1064A/B/C/D/E	1996	Replacement	NO
Hilti K	wik Bolts	Hilti Corp.	P/N 000453738	N/A	FO 1064A/B/C/D/E	1002		
		<del></del>		TUR.	TO 1004A/B/C/D/E	1992	Replacement	NO
7.	Descriptio	n of Work:	Relocation of Mai	n Steam Lines Low	Point Drains Flow Orifi	ces		
8.	Tests Cond	ducted:	Hydrostatic	Pneuma	atic Nom	ninal Operatir	ng Pressure	х
		Other	Pressure	970	psi Test Temp	545	°F	
				<del></del>	<del>-</del>		······································	

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information n items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at he top of this form.

9.	Remarks:	ECP 1625	modified the location	of the Main Stea	am Line Low Point Drain Flow	v Orifices. This included the		
	Applicable Manufacturer's Data Reports to be attached  addition of piping components and modification of piping supports. All pressure boundary welds were Liquid Penetrant							
	examined u	sing Code Ca	ise N-416-1 and accept	ted. A VT-2 Sy	stem Leakage Test in accorda	nce with Code Case N-416-1 was		
	completed a	and accepted.				1. <b>2.</b> %		
			CERTIFICA	TE OF COMP	LIANCE	and the second of the second o		
We cer	tify that the si	tatements ma	de in the report are con	rrect and this	replacement	Supplied to the supplied of th		
			E Code, Section XI.		(repair or replacement)	e genomen.		
1	ode Symbol State of Author	_	None None	E	vaination D.	10 mm		
Signed	Scot	Y Lauls Owner or	GL Equipment I	Monitoring D		/A		
						in Standard and development and the first section of the section o		
I the	dana:	1.11			ICE INSPECTION	1500 Sept. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
the State	or Province	of Hartford			pard of Boiler and Pressure Ve d employed by Hartford S	team Roiler I & I Co		
my know	ne period vledge and be nce with the re	/0-2	~ EC	72-75-9	spected the components described with the corrective measures described with the components described with the component described with the components	bed in this Owner's Report and state that to the best of bed in this Owner's Report in		
By signing examinate liable in	ng this certifications and corrections and corrections	cate neither the ective measured brany person	ne Inspector nor his en res described in this O al injury or property d	nployer makes a owner's Report. lamage or a loss	ny warranty, expressed or imp Furthermore, neither the Inspe of any kind arising from or co	lied, concerning the ector nor his employer shall be innected with this inspection.		
	Inspector's Si		Commissions	NR 118 National Boa	rd, State, Province, and Endor	2 TA sements		
Date	12-1	5-95	, 19 <u>9</u> 9			The state of the s		

1.	Owners	IES Industrie Nam			Date	12/0	7/1999		
	P. O. Box	351, Cedar Rap Addr			Sheet	1	of	2	
2.	Plant	Duane Arnold Name	Energy Center		Unit	1			
	3277 DA	EC Road, Palo, I. Addr		····	Repair	CWO Organization to P	A48551 . O. No., Job	No., etc.	org:
<ul><li>3.</li><li>4.</li><li>5.</li><li>6.</li></ul>	3277 DA Identifica (a) Appli *BECH-M (b) Appli	formed by IES U Name EC Road, Palo, IA tion of System: cable Construction ARS-M141 cable Edition of Stion of Componer	A 52324 Turbine Ma	in Stop Valves b ME III I for Repairs or R	Author Expiratefore sea	71 Edition S	Non Non S71 Adder	ne ne	Code Case
C	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board ?		ther Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or
"E! /alv	BD-GB	FlowServe Corp.	S/N E736A-1-1	N/A	МО	1098	1999	Replacement	NO)
 7. 8.	Descriptio	n of Work:	MO 1098 was rep						
<b>.</b>	. csas cone	Other	Pressure		umatic psi	Test Temp	ninal Operatii	og Pressure	X

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

9. Remarks: MO 1098 was leaki	ng by requiring replacemen	ıt.		
Applicable Manufac	cturer's Data Reports to be	attached		
All processes have done and do	a filtration			•
All pressure boundary welds were	E Liquid Penetrant examine	ed using Code Case N	-416-1 and accepted. A V	T-2 (199104)
System Leakage Test in accordan	ice with Code Case N-416-	1 was completed and	2CCantad	
		. was completed and	accepted.	
				5:
	CERTIFICATE OF CON	MPLIANCE		
We certify that the statements made in the	report are correct and this	replacement		
conforms to the rules of the ASME Code,	Casia VI	(repair or rep	lacement)	1 11 - 120 /2
contorms to the rules of the ASIME Code,	Section XI.			
Type Code Symbol Stamp	None			
Certificate of Authorization No.	None	Expiration Date	N/A	
Signed Signed	L Equipment Monitoring	Date &	, , ~	÷ .
Owner or Owner's	Designee, Title	Date Alle	1999	
				486
	CERTIFICATE OF MO			
•	CERTIFICATE OF INSE	RVICE INSPECTION	ON	er i ser engely s
I, the undersigned, holding a valid commis	ssion issued by the Nationa	l Board of Boiler and	Pressure Vessel Inspector	a and
mie State of Province of	iowa	and employed by	Hartford Steam Boiler I	& I Co
of Hartford, Conn.		e inspected the compo	onents described in this Or	vner's Report
during the period 12-15-95	to 12-1	C-55	and state there	-4-1
my knowledge and belief, the Owner has paccordance with the requirements of the A	performed examinations and	d taken corrective mea	asures described in this Or	wner's Report in
accordance with the requirements of the A	SME Code, Section XI.			e e e e e e e e e
By signing this certificate neither the Inspe	ector nor his employer mak	es any warranty, eynr	essed or implied concerni	ina sha
examinations and corrective measures desc	crided in this Owner's Reni	ort Furthermore neit	her the Increator nor his -	
liable in any manner for any personal injur	y or property damage or a	loss of any kind arisin	g from or connected with	this inspection.
Inspector's Signature	National	72 AN I /I/	22 IA e, and Endorsements	
	ivational	Dodu, State, Province	e, and Endorsements	
Date $12-15-55$ ,	19 <i>99</i>			

1.	Owners	IES Industries		Dat	te 12/27/1	999		
		Name						
	P. O. Box	351, Cedar Rapid	ls, IA 52406	She	eet <u>1</u>	_ of	2	· ·
		Addre	SS					
2.	Plant	Duane Arnold	****	Un	it <u>1</u>			<del></del>
		Name						
	3277 DAE	C Road, Palo, IA	52324		CWO A			
		Addre	SS	Re	pair Organization to P.	O. No., Job !	No., etc.	
3.	Work Peri	formed by IES Ut	ilities. Inc.	Ту	pe Code Symbol Stamp	Non	e	
J.	WOLK I GL	Name			thorization No.	Non	e	7
	3277 DAI	EC Road, Palo, IA	52324		piration Date	Non	е	
4.	Identificat	tion of System:	"B" Recirc I	Motor Snubber (DCA				0 1 0
5.	(a) Appli	cable Constructio	n Code ASM			76 Adden	da	Code Case.
	*BECH-N	/RS-M141			cements 1989-A92 GP	<b>)</b>		
	(b) Appli	cable Edition of S	Section XI Utilized	for Repairs or Repla	ent Components	(do	-	
6.	Identifica	tion of Componer	its Kepaired or Kep	placed and Replacem	t Components 7 7	1	l	ASME
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or NO)
	\-004-SSB- (snubber)	Lisega	99614473/19	N/A	Lisega Model # 308256RF3	1999	Replacement	NO
• D	CA-004-SSB- (adapter)	Lisega	Heat Code # Z589	N/A	N/A	1999	Replacement	NO
• D	CA-004-SSB- (end cap)	Lisega	Heat Code # Z294	N/A	N/A	1999	Replacement	МО
								<del> </del>
	-,							
								<del> </del>
								-
							<u> </u>	
			<u> </u>					
7.	Descripti	on of Work:	Replaced Lisega	size #8 snubber with initial installation of	an identical Lisega size snubber (end cap was d	e #8 snubber. lamaged & a	* These parts dapter was the v	were vrong size).
8.	Tests Co	nducted:	Hydrostatic	Pneum			ing Pressure	
		Othe	r Pressu	re N/A	psi Test Temp	N/A	۰F	

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

Applicable Manufacturer's Data Reports to be attached						
AK350 flu	id was not rated for RAD exposure expected 30 days following a DBA. This snubber was replace	ced with a new				
Lisega snu	bber (S/N 99614473/19) filled with AP280 fluid which has a higher resistance to RAD exposure.	Preservice				

CERTIFICATE	OF COMPLIANCE	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
We certify that the statements made in the report are correc		•
conforms to the rules of the ASME Code, Section XI.	(repair or replacement)	e de la composition della comp
Type Code Symbol Stamp None		
Certificate of Authorization No. None	Expiration Date N/A	<u> </u>
Signed GL Equipment Mo	nitoring Date	2000
Owner of Owner's Designee, Title		g Area
CERTIFICATE  I, the undersigned, holding a valid commission issued by the State or Province of Iowa	OF INSERVICE INSPECTION  ne National Board of Boiler and Pressure Ves  and employed by Hartford St	sel Inspectors and
of Hartford, Conn.	have inspected the components describ	
during the period //- 23 - 95 to my knowledge and belief, the Owner has performed examin	nations and taken corrective measures describ	nd state that to the best of bed in this Owner's Report in
accordance with the requirements of the ASME Code, Sect	ion XI.	The state of the s
By signing this certificate neither the Inspector nor his empexaminations and corrective measures described in this Ow liable in any manner for any personal injury or property data.  Commissions	ner's Report. Furthermore, neither the Inspe	ctor nor his employer shall be nnected with this inspection.
Inspector's Signature	National Board, State, Province, and Endor	sements
Date 1-5- , 19 2000		· •

1.	Owners IES Industries Name			Date12/27	7/1999			
	P. O. Bo	x 351. Cedar Rap		s	heet 1	of	2	•
		Add	ress					
2.	Plant	Duane Arnoic	i Energy Center	ſ	Init 1			
		Nam						
	3277 DA	EC Road, Palo, I	A 52324		P. T. C.			
		Addr			epair Organization to P	109004		
3.	Worls D.	.c. 11 1-0-1		•	opun Organization to P	. O. No., Job	No., etc.	2750 J. W.
٥.	work Per	formed by <u>IES U</u> Name	tilities, Inc.		ype Code Symbol Stam	P No	ne	
	3277 DA	EC Road, Palo, I.	A 52324		uthorization No.	No		
4.	Identifica	tion of System:	RWCU Rea	turn Line Snubber (D	xpiration Date	No	ne	
5.	(a) Appli	cable Construction	on Code ANS	SI B31.7		0 Adde	nda	Code Case
		MRS-M141	Carrie Martin	1.0	92			_ Code Case
6.	Identifica	tion of Componer	section XI Utilized nts Repaired or Re	d for Repairs or Replacements	acements 1982-A92 (1/2)	lao ·	_	A CONTRACTOR OF THE PROPERTY O
	ame of	Name of	Manufacturer		,		T	ASME
	mponent 014-SS-073	Manufacturer	Serial No.	National Board No.	Other Identification	Year Built	Repaired. Replaced, or Replacement	Code Stamped (YES or
ripe (	Clamp Bolt	Cardinal	Heat # D66732	N/A	P.O. # S72018	1992	Replacement	NO)
	014-SS-073 Clamp Nut	Cardinal	Heat #	N/A	P.O. #S26813	1986	Replacement	NO
търсс	ramp (val		Y592608			ļ	- Topicasonicas	NO
7	D							
7.	Description	n of Work:	Replaced pipe cla	mp bolt & nut.	÷			
8.	Tests Cond	iucted:	Hydrostatic	Pneumat	ic Nom	inal Operatir	ig Pressure	
		Othor	<del></del>		<del></del>	-	-	<u> </u>
		Other	Pressure	: N/A	psi Test Temp	N/A	°F	and the state of t

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

9.	Remarks:	Snubber (DCA-014-SS-073) & pipe clamp was removed to perform an ISI exam on a weld under the pipe clamp	•
		Applicable Manufacturer's Data Reports to be attached	<u>'-</u>

Bolting was damaged during removal. Replaced one 5.8" bolt & nut on pipe clamp. Preservice examination (P99124) was performed following installation.

	The state of the s	<del></del>		
	CERTIFICATE OF COM	<b>1PLIANCE</b>		
We certify that the statements made	in the report are correct and this			e grande et et et e
conforms to the rules of the ASME C	Code, Section XI.	(repair or repla	acement)	18 18 <b>2</b> 1
Type Code Symbol Stamp	None			
Certificate of Authorization No.	None	Expiration Date	N/A	
Signed Aper	GL Equipment Monitoring wher's Designee, Title	Date	2/2000	7999
Owner or Ow	mer's Designee. Title	l	7	Appropries
1, the undersigned, holding a valid conthe State or Province of of Hartford, C	lowa	l Board of Boiler and I and employed by	Pressure Vessel I Hartford Steam	Inspectors and Boiler I & I Co. in this Owner's Report
my knowledge and belief, the Owner accordance with the requirements of t	has performed examinations and	2_86	and c	tata that so the have of
By signing this certificate neither the examinations and corrective measures liable in any manner for any personal	injury or property damage or a l	ort Furthermore neith	ner the Inspector g from or connec	nor his employer shall be cted with this inspection.
Inspector's Signature	_	Board, State, Province	, and Endorseme	ents
Date/- 3 -	19 <u>200</u> 0			• .

1.	Owners	IES Industri			Date 01/	04/00		
	P. O. Bo	x 351, Cedar Rap Add			Sheet 1	of	2	•
2.	Plant	Duane Arnole Nam	d Energy Center		Jnit 1		eiif.	
	3277 DA	EC Road, Palo, I Add		<u> </u>	CW( Repair Organization to	D A48375 P. O. No., Job	No., etc.	16 
<ul><li>3.</li><li>4.</li><li>5.</li></ul>	3277 DA	formed by IES L Name EC Road, Palo, I tion of System: cable Construction	A 52324 Control Ro	A E od Drive Accumulator		No No	ne ne	in the property of the control of th
6.	(b) Appli	cable Edition of	Section XI I Itilize	d for Renaire or Pani	9 68 Edition accements 1989-A92 6	Adden PY/ox	nda	Code Case
Co	ame of mponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or
	nulator	General Electric	S/N H1758	N/A	IS220 (14-31)	1978	Replacement	YES
CRD		General Electric	S/N A5685	N/A	IR215 (14-31)	1990	Replacement	YES
7. 8.	•	n of Work:		or and Mechanism w			• , •	
o.	Tests Cond		Hydrostatic	Pneuma	itic No	minal Operati	ng Pressure	X
		Other	Pressure	1440 / 1023	psi Test Temp	74 / 246	°F	
NOTE	F: Summlen	anntal ahaasa :- £						* ·.

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 81/2 in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

				FORM NI	S-2 (Back)			
9.	Remarks:	Inspection of	f the accumulator rev	ealed some	deterioration of intern	and minerium amaka		_
		Applicable N	Manufacturer's Data F	eports to be	attached	iai plating on the e	na caps.	The accumulator
	was replace	d. A VT-2 (ref	f P99140) was compi	eted and acc	cepted. In addition, th	na Campal Dad D		••
					core location 34-31 a			
	been rebuilt	under Work O	rder 1085041 with no	Section X	repair/replacement b	eing completed.	The install	ed drive was
			report # [99107] and					
					<del></del>			is a medicinalism angu <sup>*</sup> i quidrible sid on as
			CERTIFICA <sup>*</sup>	TE OF CO	MPLIANCE			
We cer	tify that the s	tatements made	e in the report are cor	Tect and this	repi	lacement		TO MAIN MEDIUM STUDIES OF STUDIES
			Code, Section XI.		(repair or rep			
Johnson	ns to the fule:	of mic Wolvie	Code, Section XI.					- 345 301 v.a.
Type C	ode Symbol S	Stamp	None					The design of the State of the
Certific	ate of Author	ization No.	None		Expiration Date	N/A		and or the same
Signed	Dei	To Frence	GI Equipment I	Monitoring	Date 0	13	2000	- man range and manager and a
	<del></del>	Owner or O	wner's Designee, Tit	le	Jan 19	<del></del>	2000	94000000000000000000000000000000000000
								in an analysis of the transfer on all the
								And the second of the second o
			CERTIFICAT	E OF INS	ERVICE INSPECTI	ON		The second section and the second section is a second section of the second section se
I, the un	dersigned, ho	olding a valid c	ommission issued by	the Nationa	il Board of Boiler and	i Pressure Vessei I		and
of	or Province	of Hartford,	iowa		and employed by	Hartford Steam	Boiler I &	: I Co.
	he period			——, hav	e inspected the comp	onents described i	n this Own	ner's Report
my know	viedge and be	elief, the Owne	r has performed exar	ninations an	7- <i>00</i> d taken corrective me	, and st	ate that to	the best of
accordar	nce with the r	equirements of	f the ASME Code, Se	ction XI.	e anton contective int	asures described i	n this Owi	ner's Report in
By signi	ng this certifi	icate neither th	a Ingaacean bi					
	mond with col		es described in this i	HUMAP'C PAN	tes any warranty, expr ort. Furthermore, nei	Alamanalan Tiriri		
liable in	any manner	or any persona	d injury or property of	lamage or a	loss of any kind arisi	ng from or connec	nor nis <b>em</b> ted with th	iployer shall be is inspection.
	4/6		Commissions					
	Inspector's S	ignature		National	8 72 ANE, 1422 E. Board, State, Province	e. and Endorseme	nts	
Date	,					, wie Literischie		
	1/17	/	2000					

1.	Owners	Alliant Energy	(IES Utilities)		Date	01/12/2	000		
		Name		<del></del>					
	P. O. Box	351, Cedar Rapid	is, IA 52406		Sheet	1	of	2	
		Addre			_				
2.	Plant	Duane Arnold	Energy Center		Unit	1			
	riaiit	Name			-	•		· · · · · · · · · · · · · · · · · · ·	
			50004			CWO A	40000		
	3277 DAE	C Road, Palo, IA			Panair Or	ganization to P.		No etc	<del></del>
		Addre	:22		Kepan Oi	gamzanon to 1.	0. 140., 100	110., 0.0.	
3.	Work Peri	formed by Allians	t Energy (IES Utili	ties)	Type Cod	le Symbol Stamp	Non	ie	
		Name			Authoriza		Non	ie .	
		EC Road, Palo, IA			Expiration	n Date	Non	ie	
4.		tion of System:		urn Line Snubber				<u>.</u>	<u> </u>
5.	(a) Appli	cable Construction	on Code ANS	I B31.7	19 69		Adden	a	Code Case.
_	(b) Appli	cable Edition of S	Section XI Utilized nts Repaired or Rep	tor Repairs or R	epiacemeni	nnonents			
6.	Identificat	tion of Componer	its Repaired of Rep	laced and Replac	Tement Cor	inponents	1		ASME
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board N	io. Oth	er Identification	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or NO)
	-014-SS-074	Bergen Paterson	None	None	DA-2:	52	Rebuilt 1999	Replacement	No
HSS	A-3 Snubber						1,777		
									ļ
									<del> </del>
						· · · · · · · · · · · · · · · · · · ·			
7.	Description	on of Work:	Replaced snubber	r at DCA-014-SS	-074 location	on with rebuilt sp	oare S/N DA	252	
3.	Tests Con	ducted:	Hydrostatic	Pne	eumatic	Non	ninal Operat	ing Pressure	
		Other	Pressu	re	psi	Test Temp		۰F	•
in i	tems I throu	igh 6 on this repo	form of lists, sketcl rt is included on ea 0030) may be obta	ich sheet, and (3)	each sheet	is numbered and	the number	of sheets is rec	orded at

10 d - 10 11

#### FORM NIS-2 (Back)

9.	Remarks:	Removed S/N DA-047 from Location DCA-014-SS-074 and replaced it with a spare S/N DA-252. A pre-service
		Applicable Manufacturer's Data Reports to be attached

VT-3 examination (P99132) was performed following installation. DA-252 was rebuilt & tested under PWO 1108667,

5/12/1999. No load bearing parts were installed replaced during the rebuild of DA-252 (only seal kit was installed). DA-252

was previously installed at location HBB-021-SS-218B prior to rebuild. This NIS-2 merely records currently installed location.

	CERTIFICATE OF COM	MPLIANCE		
We certify that the statements made in	the report are correct and this	Replacement		
conforms to the rules of the ASME Co	ode, Section XI.	(topun or top	, accincint)	্নত হ'ল বিভাশ শুকুলি কৈছে কৈছে
Type Code Symbol Stamp	None			77 - 5,1244
Certificate of Authorization No.	None	Expiration Date	N/A	2 (18 de 18 de
Signed CARLE AT	TL Equipment Monitoring	Date	1/12/	_ 2000
Owner or Owi	ner's Designee, Title		/	t terrene e e e e e e e
				. 14 4
	CERTIFICATE OF INS	ERVICE INSPECT	ION	en e
I, the undersigned, holding a valid con the State or Province of	Iowa	and employed by	Hartford Steam	Boiler I & I Co.
of Hartford, C		•		n this Owner's Report
my knowledge and belief, the Owner accordance with the requirements of the	has performed examinations ar	nd taken corrective m		ate that to the best of in this Owner's Report in
By signing this certificate neither the examinations and corrective measures liable in any manner for any personal	described in this Owner's Rep	ort. Furthermore, ne	ither the Inspector	nor his employer shall be
Inspector's Signature	Commissions NB //2	F72 ANT 10 I Board, State, Provin	YZZ [A	ents
Date	2000	<b>- , ,</b>		

### THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

May 23, 1998 through December 01, 1999

Part H, page I of 1

1) Owners: IES Utilities Inc., an Alliant company P.O. Box 351 Cedar Rapids, IA, 52406 Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnoid Energy Center, Palo, IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

#### ABSTRACT OF CONDITIONS NOTED AND CORRECTIVE MEASURES TAKEN:

The corrective measures are addressed in this report and were performed in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, 1989, with 1989 Addenda (Ref. Relief Request NDE-R015), 1992 with the 1992 Addenda (Ref. Relief Request NDE-R015 Rev. 1), and the Duane Arnold Energy Center Updated Final Safety Analysis Report. The corrective measures performed as Repairs or Replacements are listed in Part F of this report and are documented, using Form NIS-2, in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Section XI, 1989, 1989 Addenda or 1992, 1992 Addenda. Specific details and associated records of additional corrective measures are on file at IES Utilities Inc. The corrective measures addressed were performed during the period of May 23, 1998 through December 01, 1999.

#### AR 18128

Per 10CFR50.55a(b)(2)(ix)(D) (ref. TAP-E004) the following items are required to be documented on the Summary Report:

- 1) a description of each flaw or area, including the extent of degradation, and the conditions that led to the degradation. The flaw is a 1" X 2" area where the coating had failed on the topside of the torus exterior. There was an approximate area of 6" X 8" area around the 1" X 2" area which was blistered, but no base metal was exposed.
- 2) the acceptability of each flaw or area, and the need for additional examination to verify that similar degradation does not exist in similar components. The measured wall thickness of the exposed area was 0.546". A review of existing evaluations determined that the area of degradation has no effect on the structural integrity of the containment (ref. C003-2968 and 25.2631.0110)
- 3) description of necessary corrective actions. The area will be re-coated under Work Order A50471 and included in Category E-C with re-examinations being performed during the next three periods.

THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT May 23, 1998 through December 01, 1999

This page intentionally blank

### THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

May 23, 1998 through December 01, 1999

Part I, page I of 45

1) Owners: IES Utilities Inc., an Alliant company P.O. Box 351

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Cedar Rapids, IA. 52406

Humbolt, IA.

Plant: Duane Arnold Energy Center, Palo, IA, 52324

3) Plant Unit: #1

Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

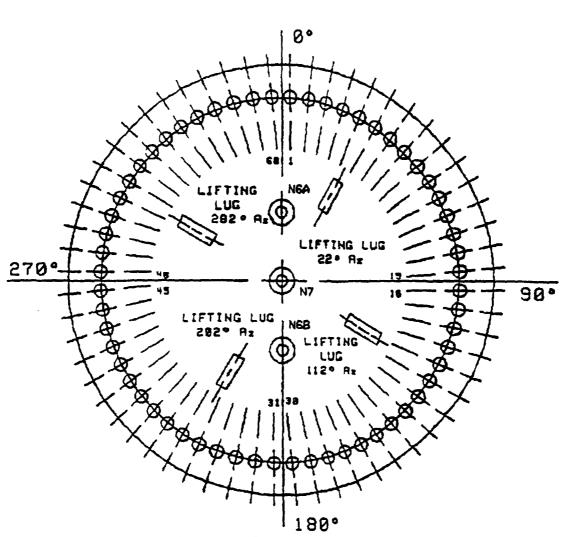
### ISI FIGURES AND ISOMETRICS

PLEASE NOTE: ISI Figures and Isometrics are listed in Part B and Part E of this report

THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT May 23, 1998 through December 01, 1999

Part i, page 2 of 45

This page intentionally blank

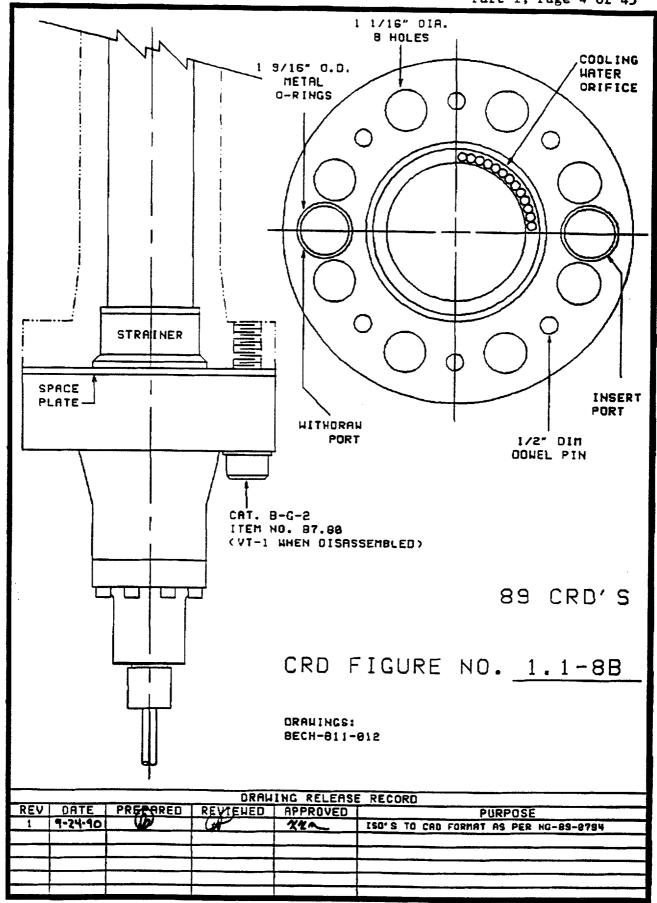


VESSEL STUD AND LIGAMENT LOCATION

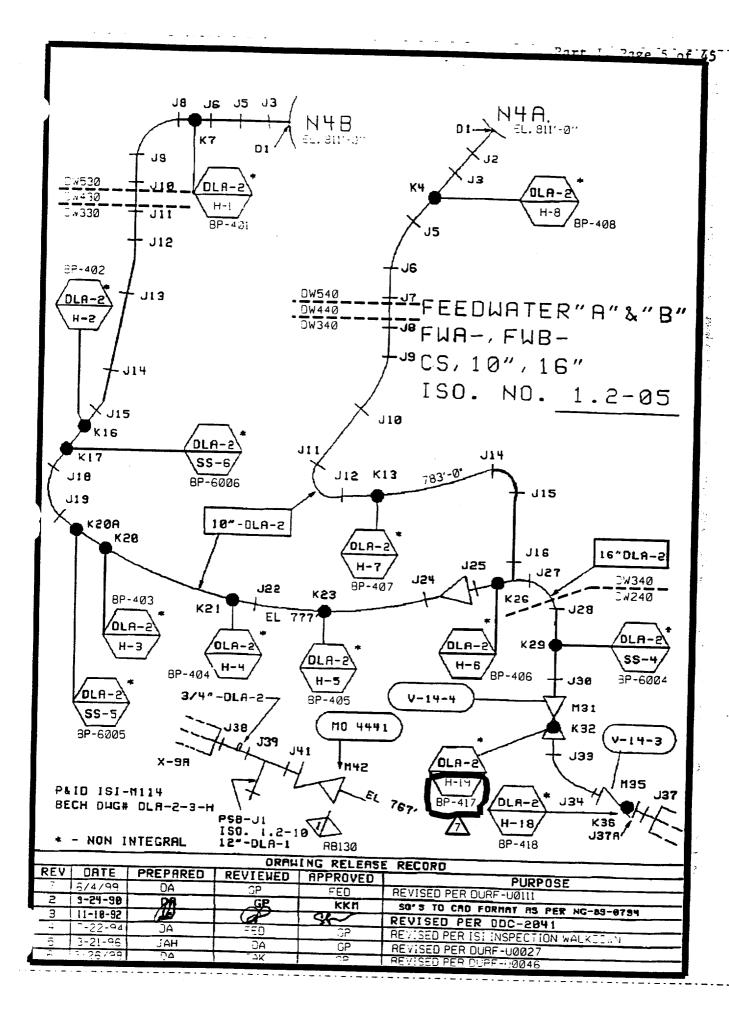
Figure No. <u>1.1-05</u>

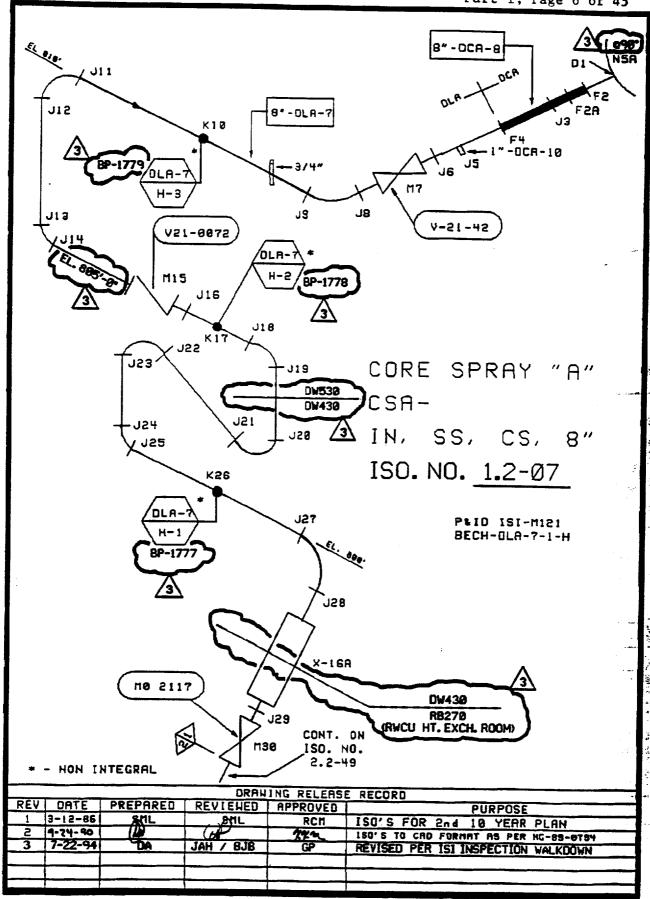
PR-Pressure Retaining
R-Studs
B-Nuts
C-Bushings
D-Washers
E-Ligaments

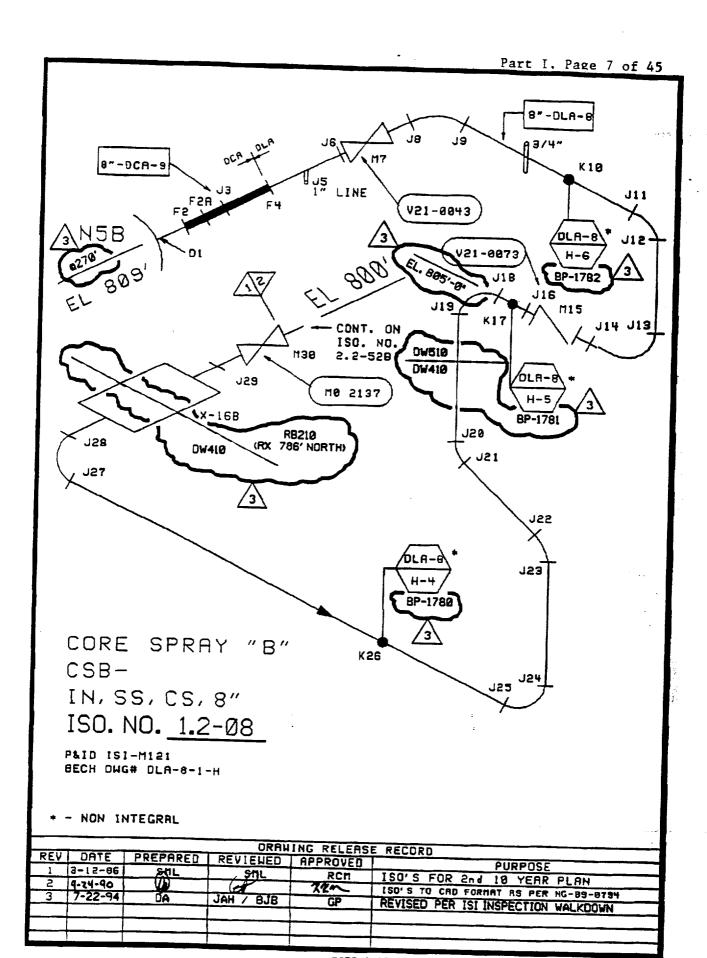
	ORAWING RELEASE RECORD							
REV	DATE	PREPARED	REVIEWED	APPROVED	PURPOSE			
1	4-9-86	SML	JKS	RCM	ISU'S FOR 244 18 YEAR PLAN			
2	9-24-98	DA	GP	KKM	ISO'S TO CRO FORMAT RE PER NG-85-6784			
3	5-13-91	OA	66	442	PCH -8- CORRECTLY EDENTIFIED FIFTING LINE			
4	7-22-94	DA	FED	GP	REVISED PER ISI INSPECTION WALKDOWN			
5	7.66.95	DA	DF	GP	DELETED DWG PER DURF-013			
6	3/11/96	JAH	TAK	GP	RE-ISSUED PER DURF-0025			

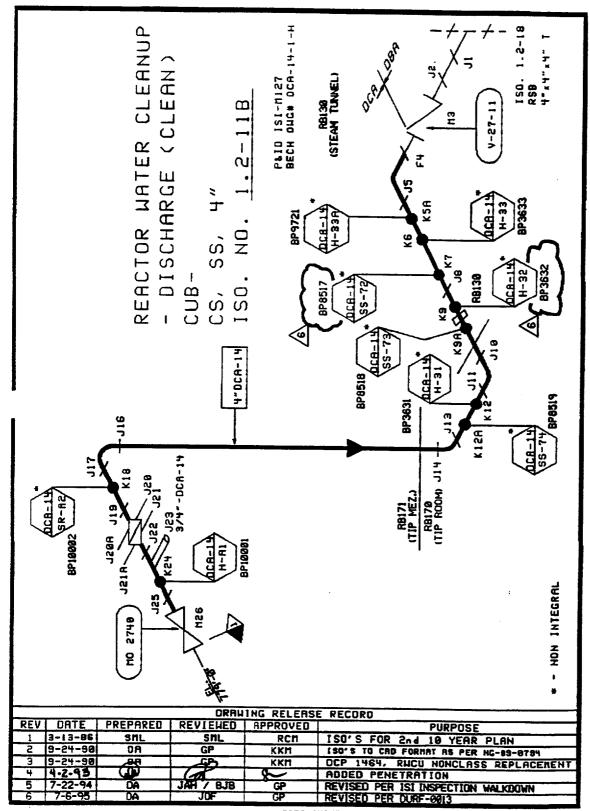


١

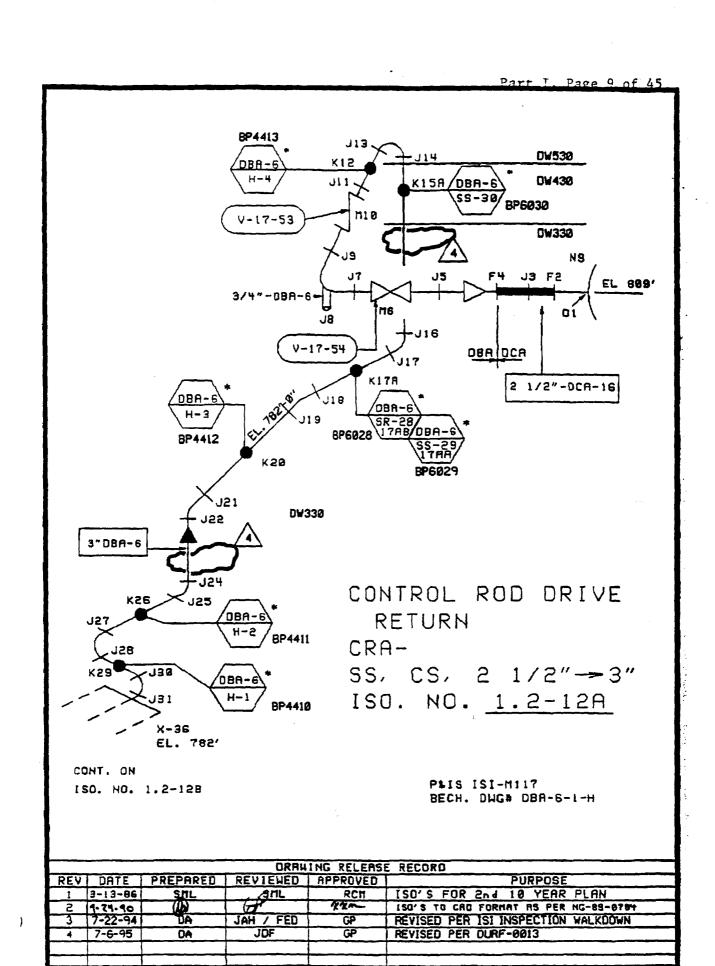


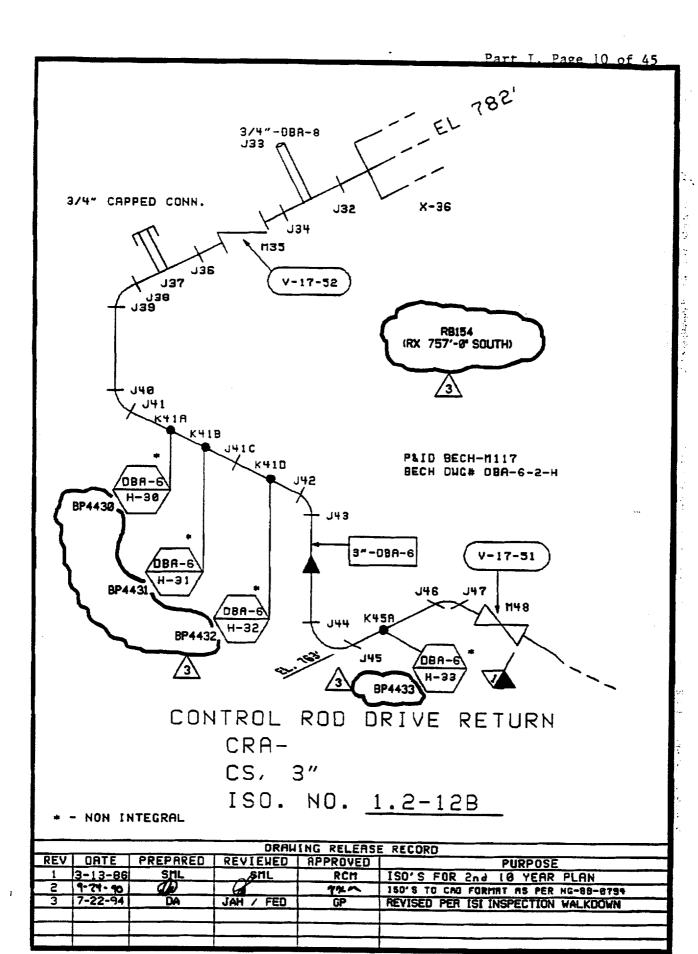


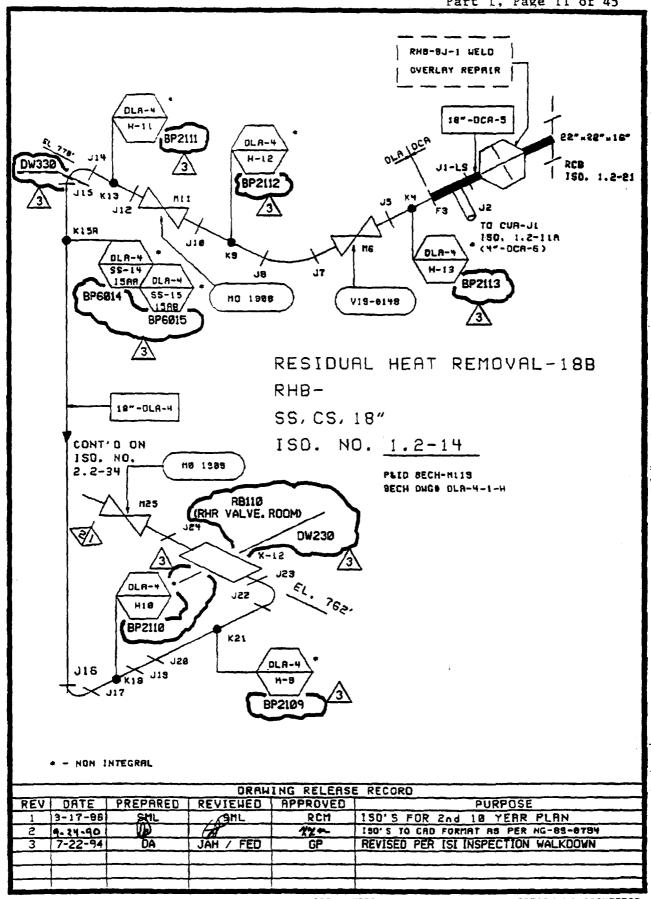


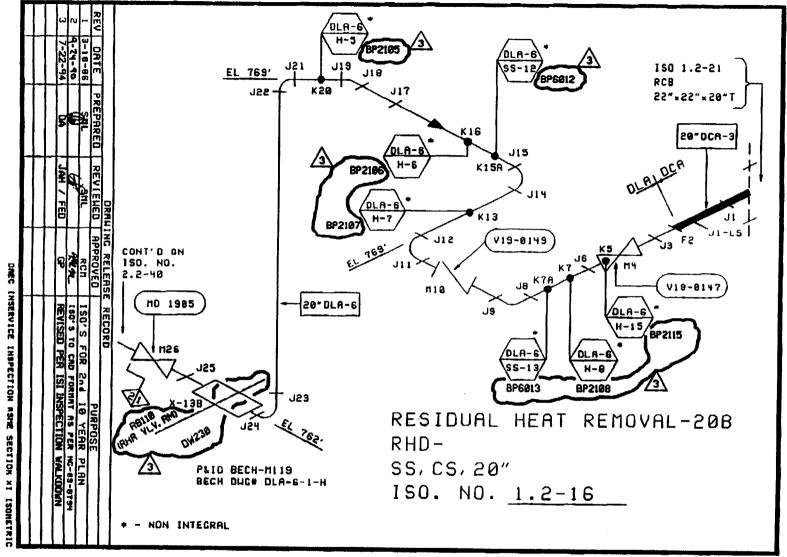


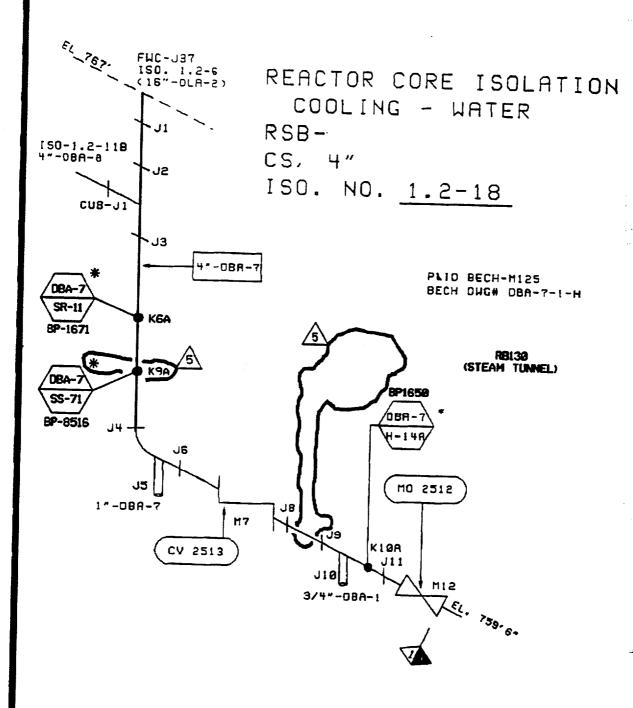
DREC INSERVICE INSPECTION RIME SECTION X1 (SOMETRIC





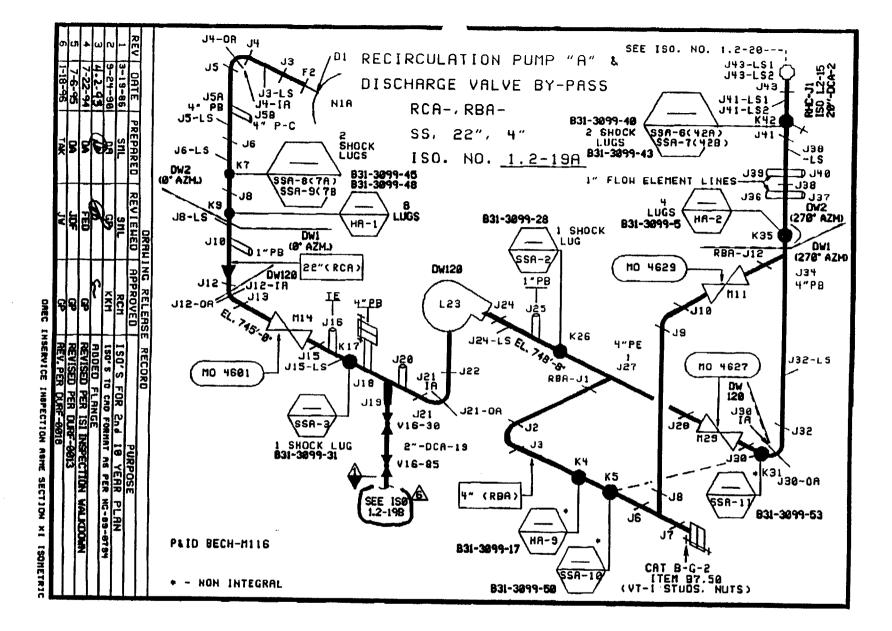






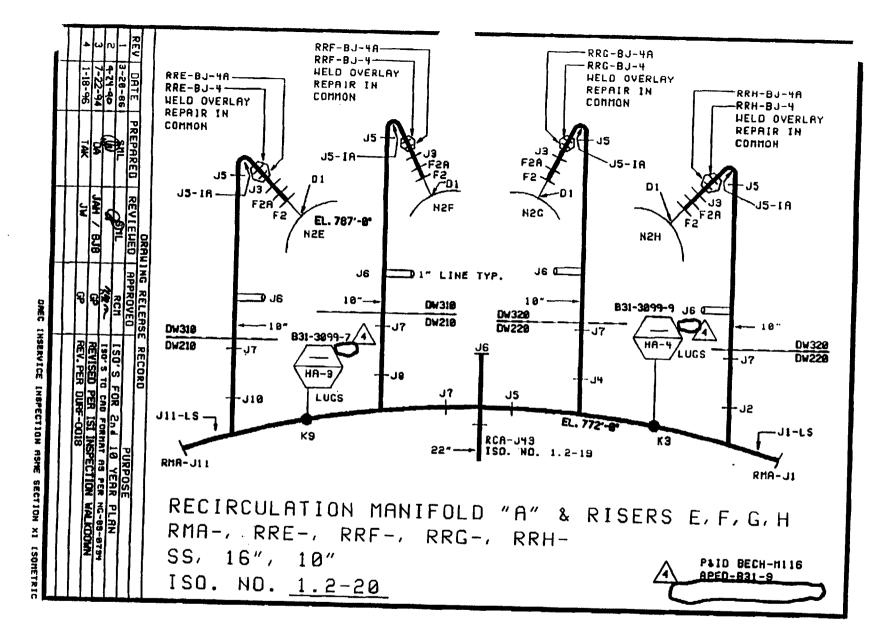
-	_	NON	INTEGRAL

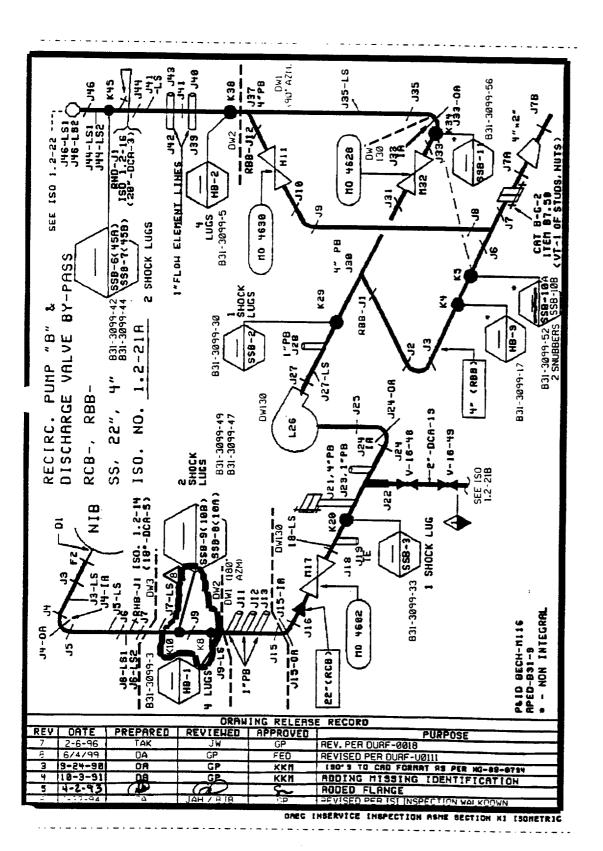
			DRAN	ING RELEASE	PECOPO
REV	DATE	PREPARED	REVIEWED	APPROVED	
1	3-19-96	SAL	SIL	RCM	PURPOSE
2	9-24-90	(4)	المالية	72 m	ISO'S FOR 2nd 10 YEAR PLAN
3	7-22-94	DA	JAH / FED	GP	ISO'S TO CAD FORMAT AS PER NG-88-8734
4	2-9-95	DA	JW	GP	REVISED PER ISI INSPECTION VALKDOWN
5	1-18-96	TAK	JW	GP	REVISED PER DURF. NO. U8984
				UP UP	REV. PER DURF-0018

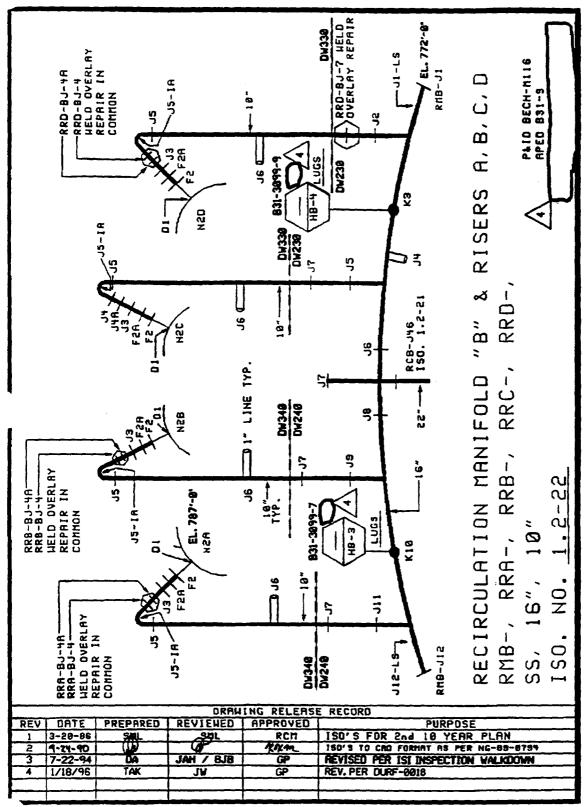


The form of a second was the second with the

and the state of the

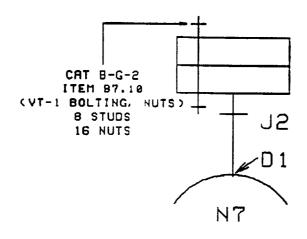


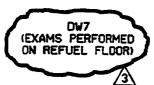




DREC INSERVICE INSPECTION ASME SECTION X1 ISOMETRIC

Part I. Page 18 of 45

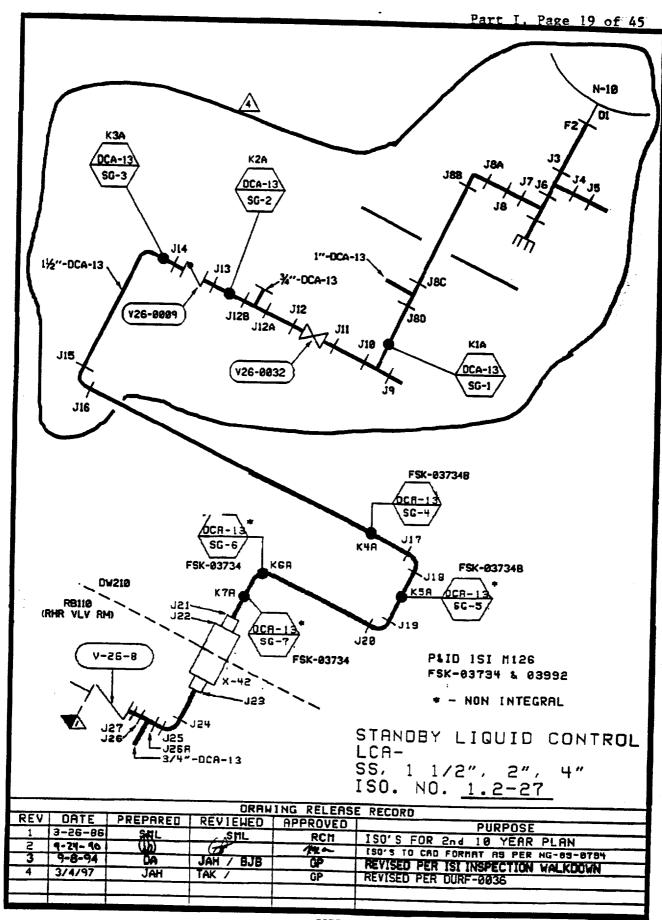


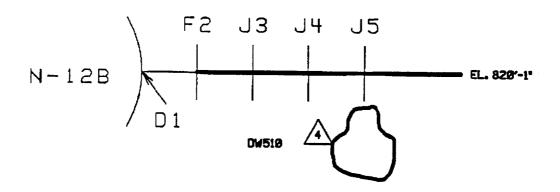


HEAD VENT HVA-CS, 4" ISO. NO. 1.2-24

P&ID BECH-M114 APED-B11-2655-104-3

			DRAH	ING RELEAS	E RECORD
REV	DATE	PREPARED	REVIEWED	APPROVED	PURPOSE
1	3-26-86	SAL	SIL	RCH	ISO'S FOR 2nd 10 YEAR PLAN
2	1.24-90	(1)	(d)	221	ISO'S TO CAD FORMAT AS PER NG-89-0794
3	7-22-94	DA	JAH /FED	GP	REVISED PER ISI INSPECTION WALKDOWN
	1 1				

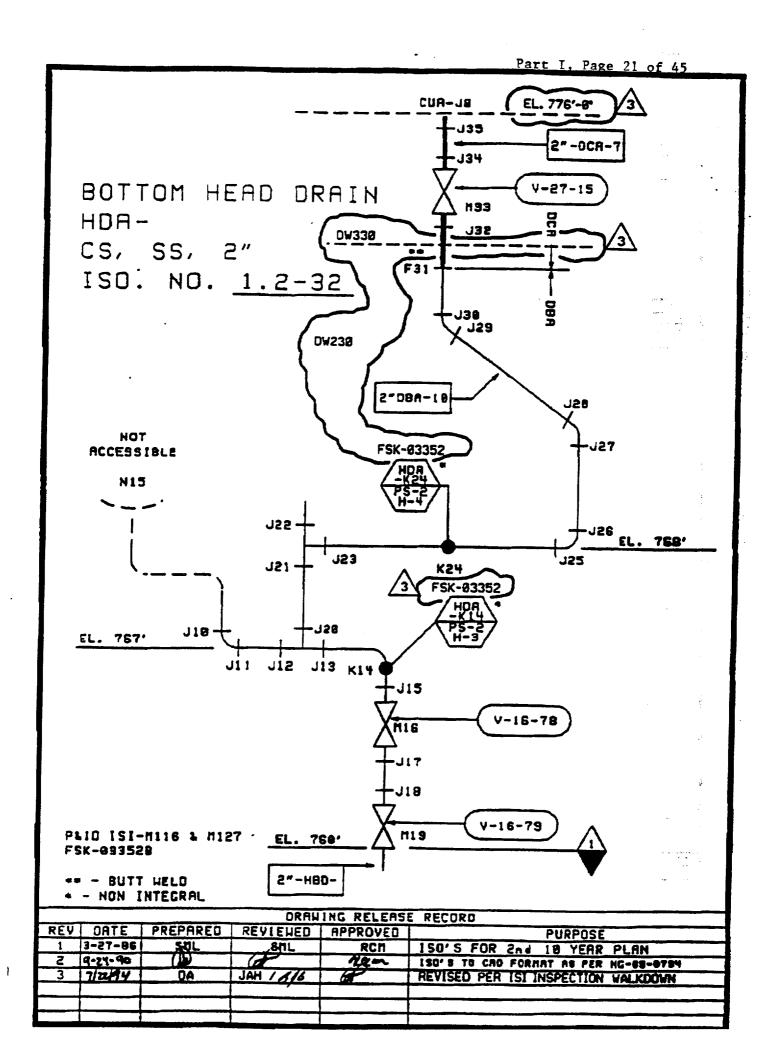


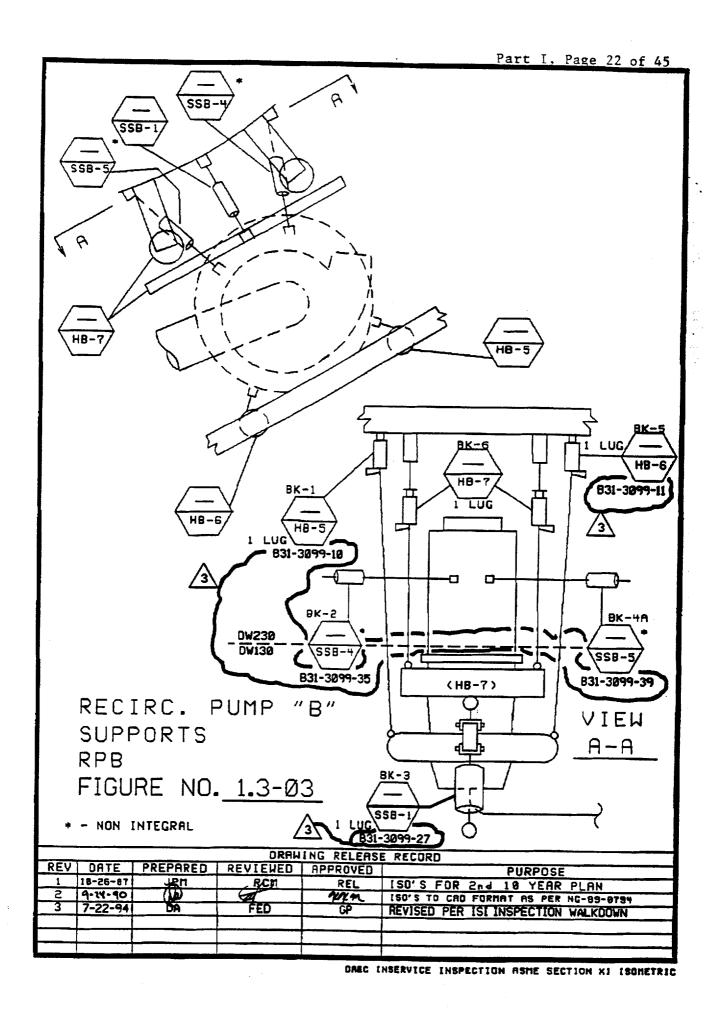


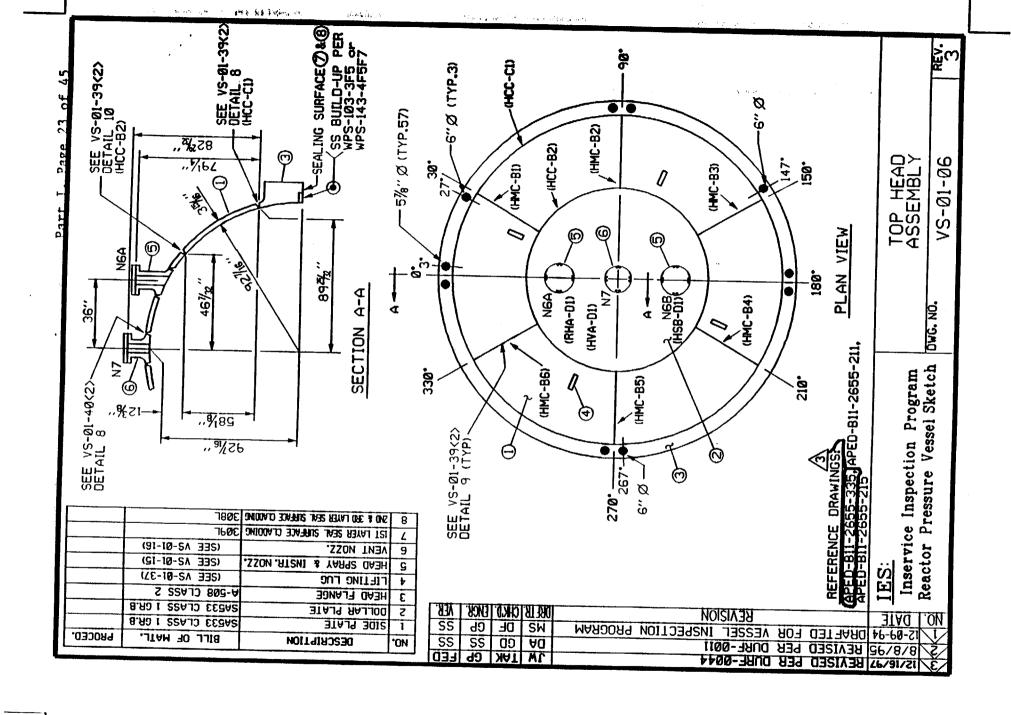
VESSEL INSTRUMENTATION N-12B VID-SS, 2", 2 1/2" ISO. NO. 1.2-31

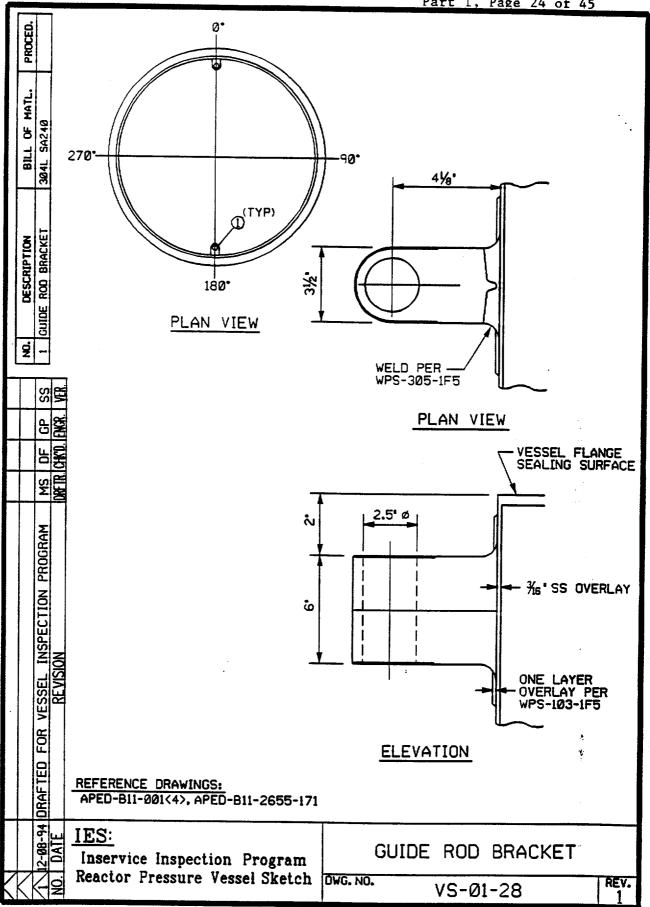
P&ID BECH-M115

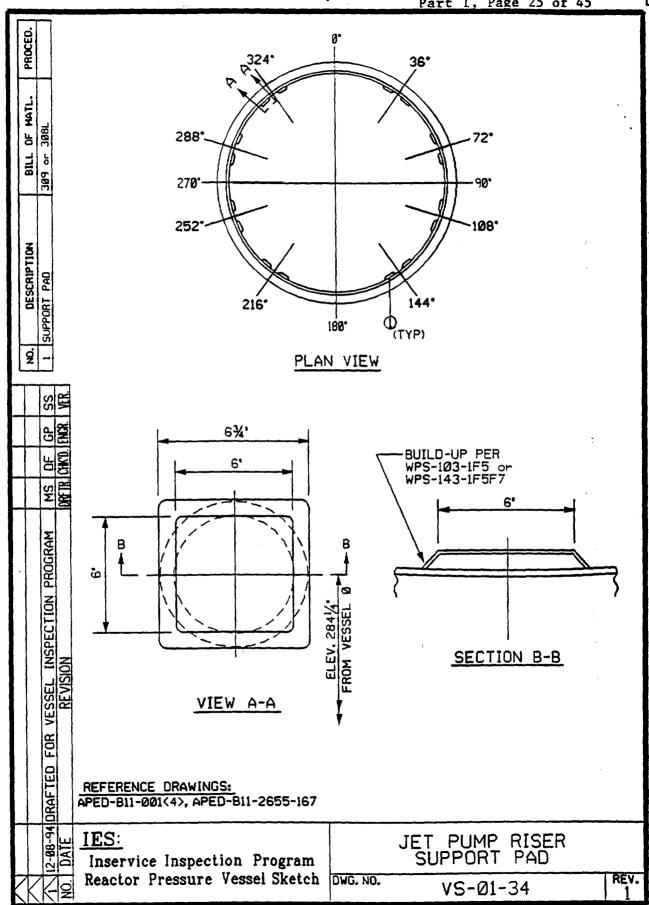
	DRAWING RELEASE RECORD					
REV	DATE	PREPARED	REVIEHED	APPROVED	PURPOSE	
1	3-27-85		/ Jame	RCM	ISO'S FOR 2nd 10 YEAR PLAN	
2	9-24-90	(11)	do	KKM	150'S TO CHO FORMAT AS PER HG-83-8794	
3	7-22-94	DA	JAH / FED	GP	REVISED PER ISI INSPECTION WALKDOWN	
4	1/18/96	TAK	JW	GP	REV. PER DURF-0018	
	1					

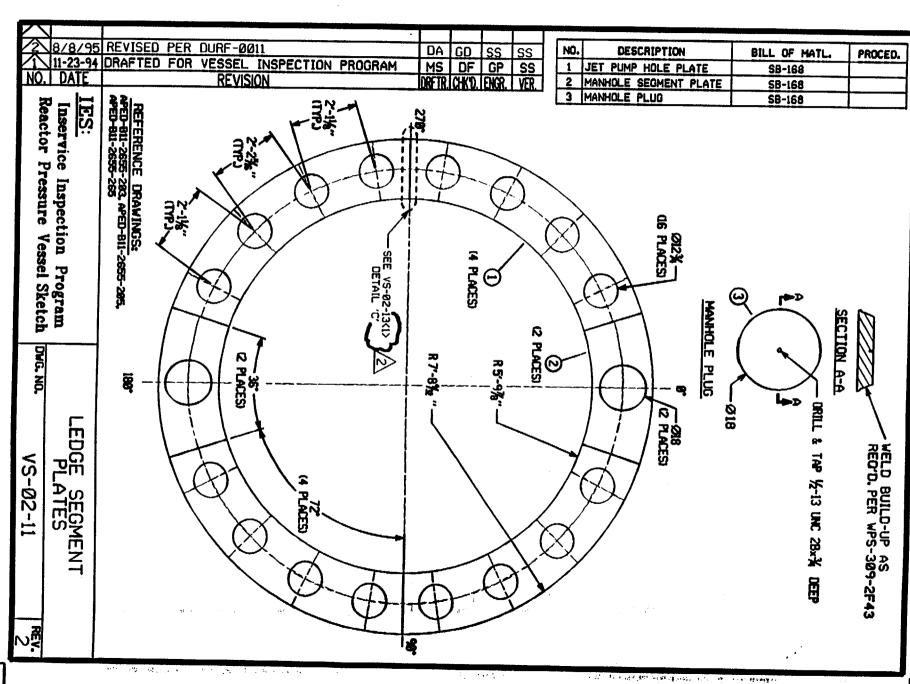








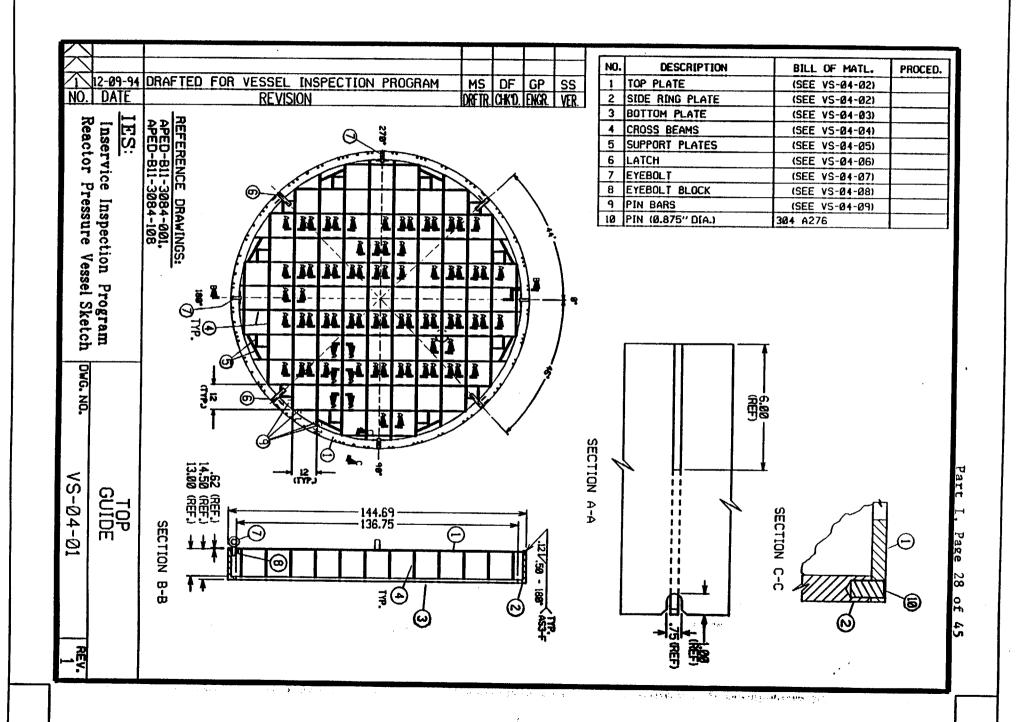


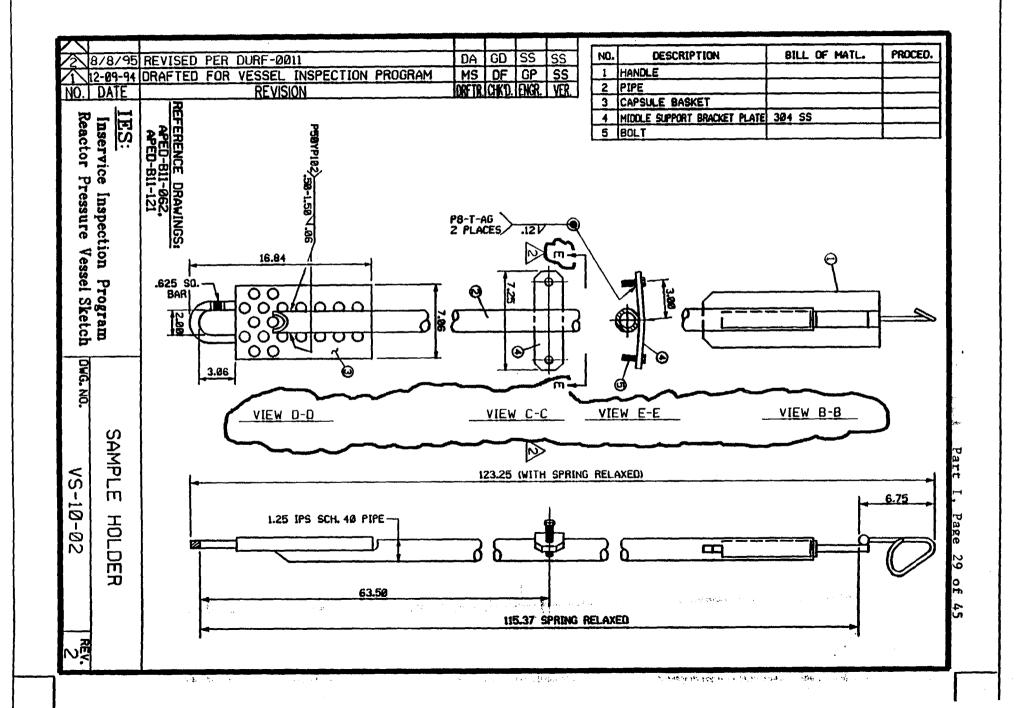


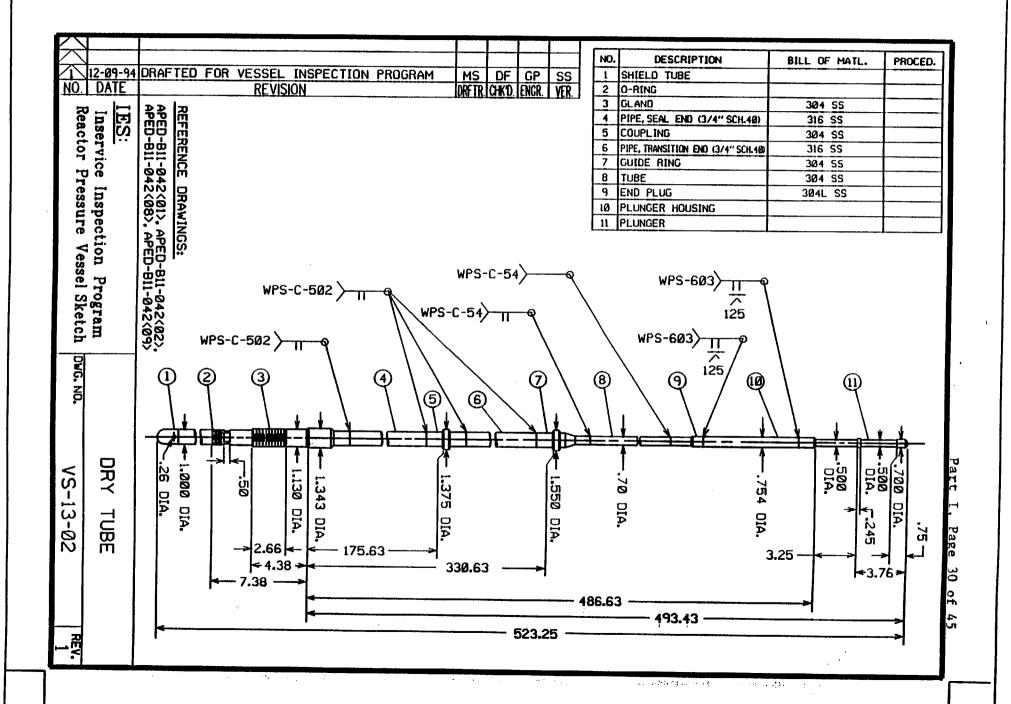
Part I, Page 26 of 45

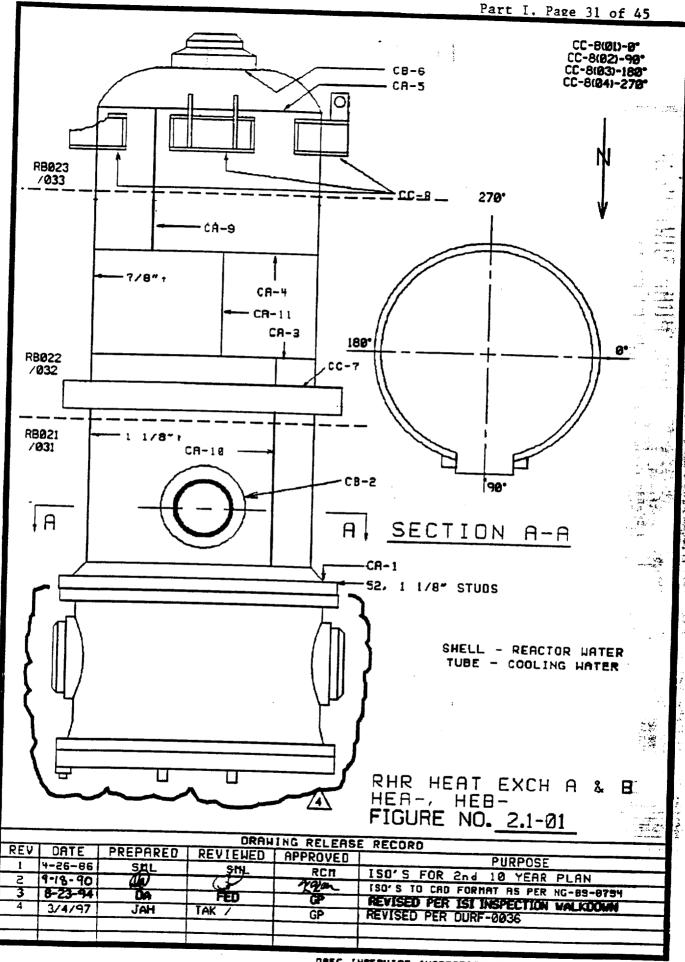
.-.

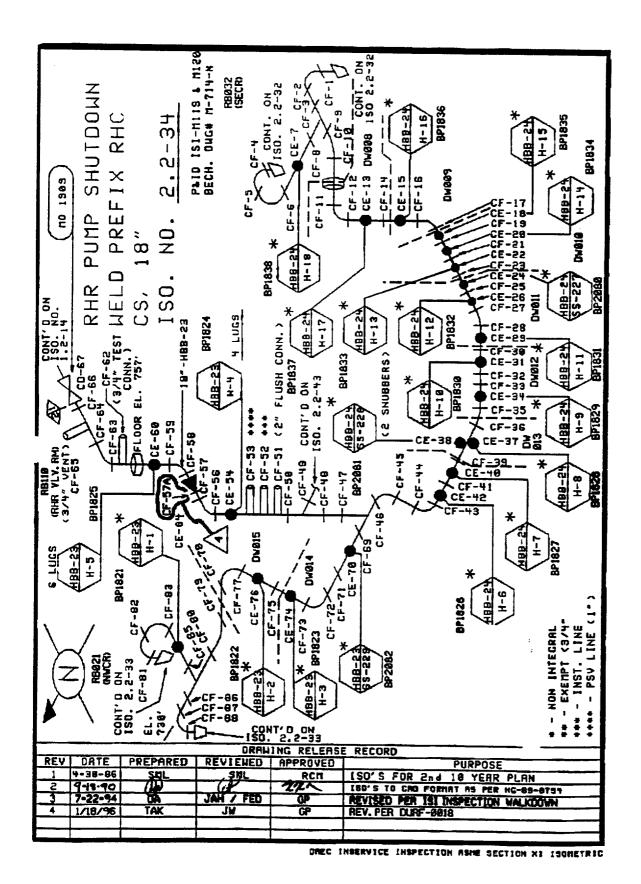
		Part I. Page 27 of 45	l
PROCED.			
BILL OF MATL. 304L A240 (SEE VS-03-06)	10.875' DIA. (TYP. 89)	0° (TYP.)	
VESSEL INSPECTION PROGRAM MS DF GP SS 1 CORE PLATE REVISION 2 ALIGNER BLOCKS	270"	135° 20 DIA. (TYP. 4)  136° MACES)	3Ø*
DRAFTED FOR VES	REFERENCE DRAWING: APED-B11-3084-008. APED-B11-3084-009		
12-09-94 [	IES: Inservice Inspection Program	CORE PLATE	
	Reactor Pressure Vessel Sketch	DWG. NO. VS-Ø3-Ø2<1> R	EV.

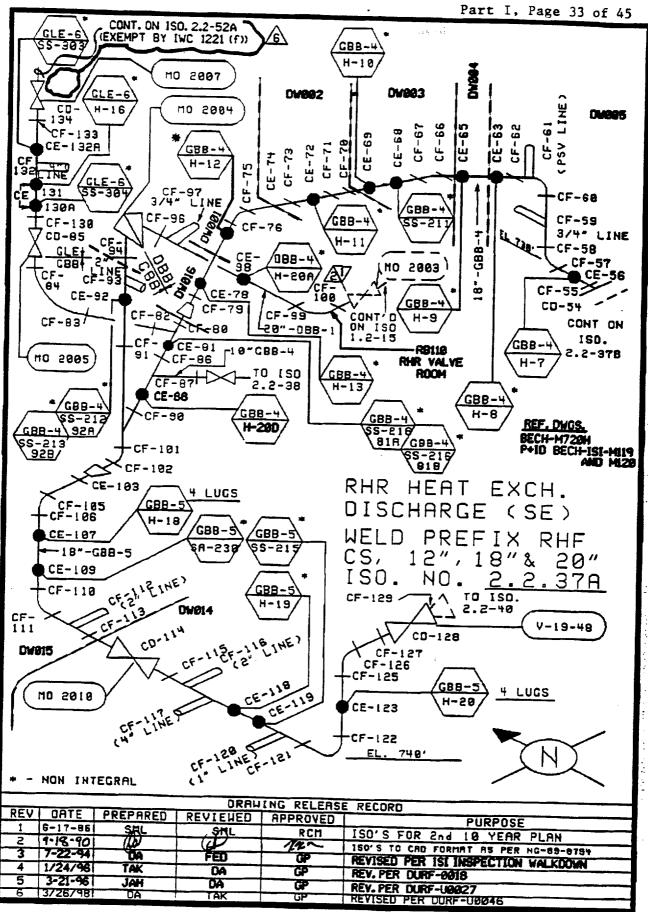


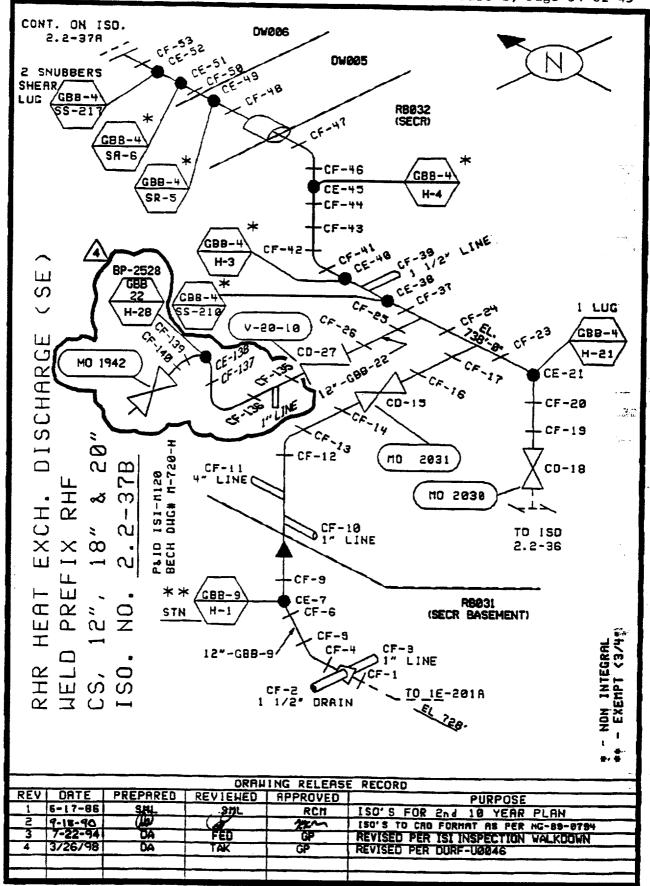




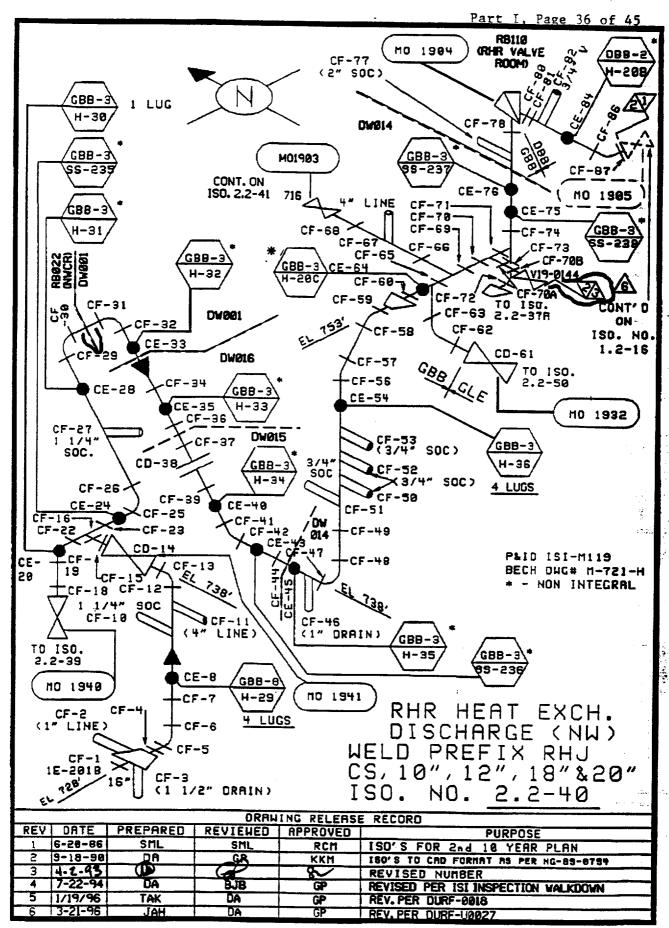


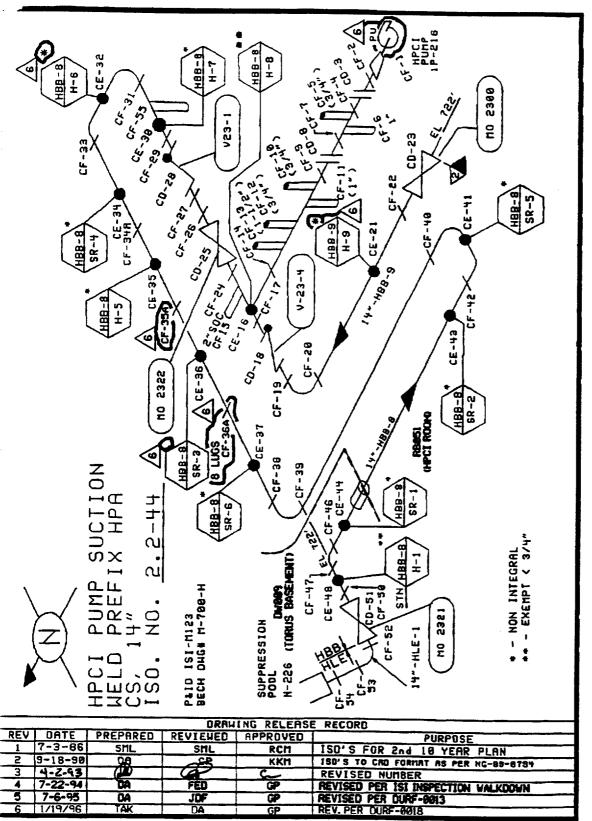




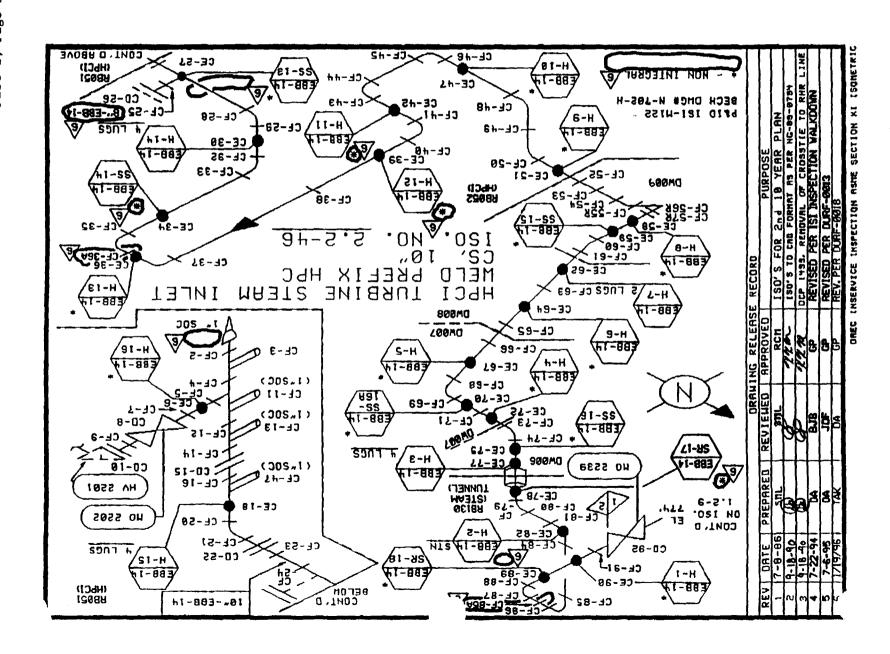


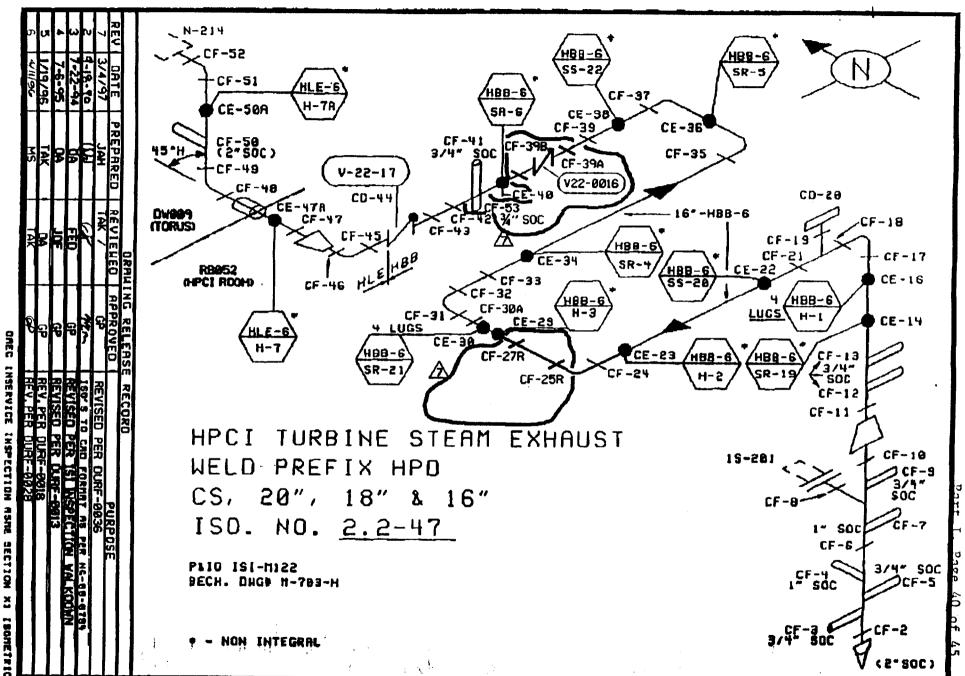
Part I, Page 35 of 45





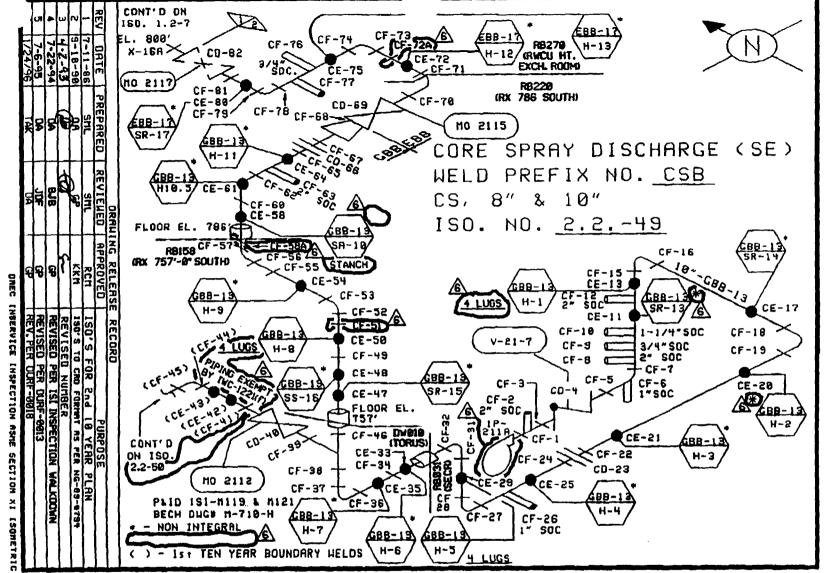
DREC INSERVICE INSPECTION ASHE SECTION X1 ISOMETRIC

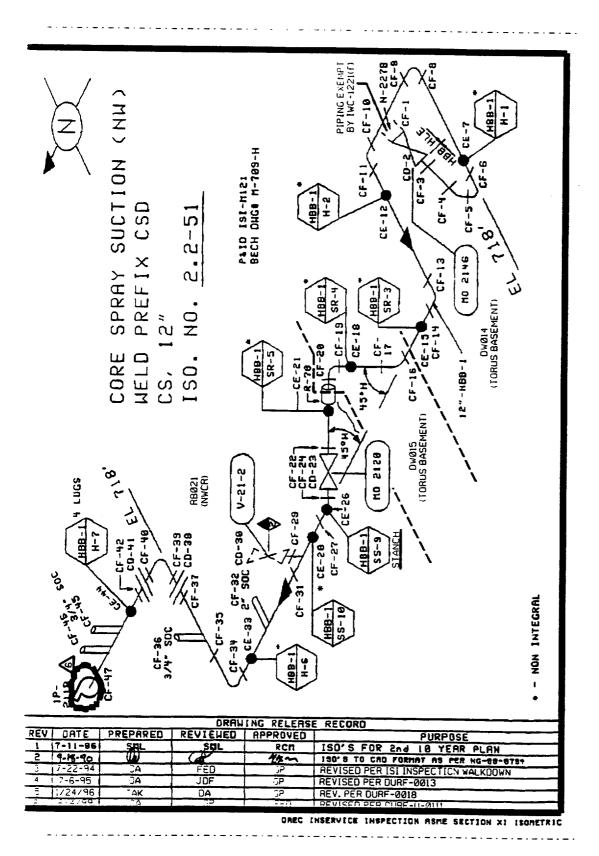




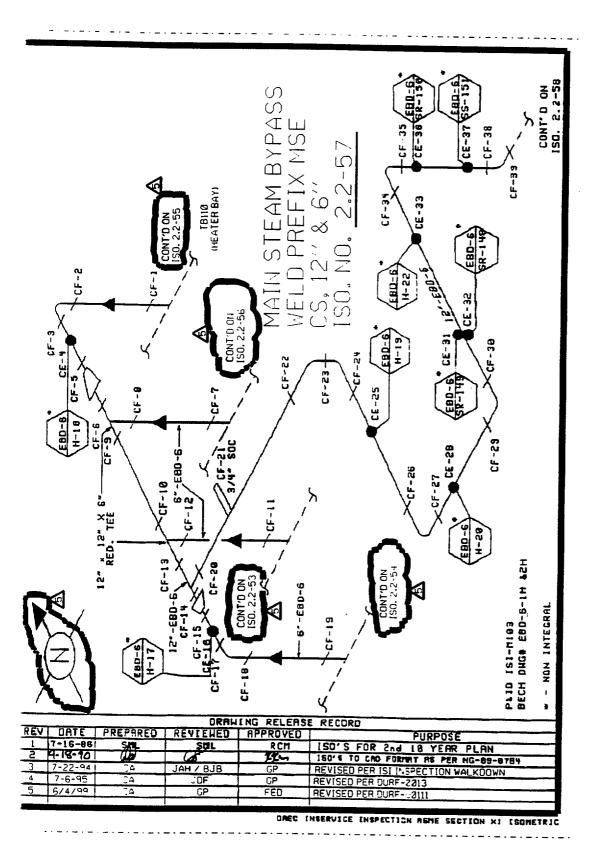
ाक का विशेषात्र में किया है।

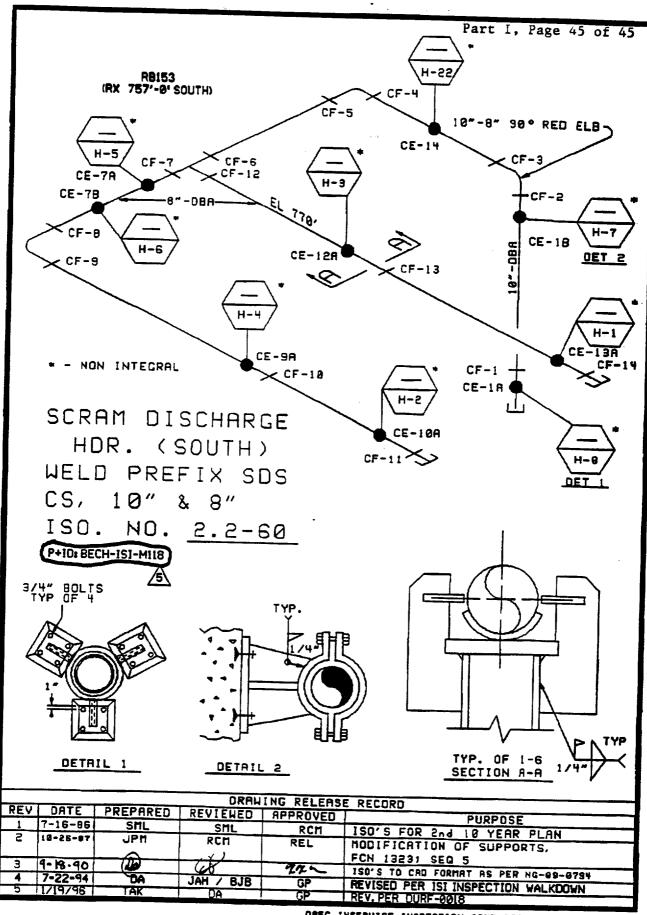
ECTION A STR **SECTION** X





Part I, Page 43 of 45





May 23, 1998 through December 01, 1999

Part J, page 1 of 4

1)	Owners: IES Utilities Inc., an Alliant company P.O. Box 351 Cedar Rapids, IA. 52406	Central Iowa Power Cooperative Marion, IA.	Corn Belt Power Cooperative Humbolt, IA.
2)	Plant: Duane Arnold Energy Center, Palo, IA. 52	2324 3) Plant Unit	:: #1
4)	Owners Certificate of Authorization (if required):	N/A 5) Commerc	ial Service Date: 02/01/75
6)	National Board Number of Unit: N/A	Gross Genera	ting Capacity: 565 MWE

#### STATUS OF WORK FOR THIRD TEN YEAR INTERVAL

(Those percentages shown are actual, where the percentages exceed the allowable only the maximum (34% for period one and 67% for period two) will be taken credit for).

CLASS 1					
ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	REMARKS
B1.11	4	0%	0%	0%	
B1.12	8	0%	0%	0%	
B1.21	2	25%	0%	0%	
B1.22	15	0%	0%	0%	
B1.30	1	50%	0%	0%	See Note 7
B1.40	1	33%	0%	0%	
B1.51	1	0%	0%	0%	
B3.90	33	48%	0%	0%	See Note 1,8
B3.100	33	48%	0%	0%	See Note 1,8
B4.11	2	0%	0%	0%	See Note 2
B4.12	89	0%	0%	0%	See Note 2
B4.13	30	0%	0%	0%	See Note 2
B5.10	14	50%	0%	0%	See Note 8
B5.20	8	38%	0%	0%	
B5.130	8	38%	0%	0%	
B5.140	2	0%	0%	0%	
B6.10	60	33%	0%	0%	
B6.20	56	29%	0%	0%	
B6.30	4	100%	0%	0%	
B6.40	60	33%	0%	0%	
B6.50	60	33%	0%	0%	
B6.180	2	0%	0%	0%	See Note 3
B6.190	2	0%	0%	0%	See Note 3
B6.200	2	0%	0%	0%	See Note 3
B7.10	3	33%	0%	0%	
B7.50	5	40%	0%	0%	See Note 3
B7.60	2	0%	0%	0%	See Note 3
B7.70	47	4%	0%	0%	See Note 3
B7.80	89	15%	0%	0%	See Note 3
B9.11	94	22%	0%	0%	
B9.12	0	0%	0%	0%	See Note 6
B9.21	9	22%	0%	0%	
B9.31	6	17%	0%	0%	
B9.32	1	0%	0%	0%	
B9.40	23	22%	0%	0%	
B10.10	l	0%	0%	0%	See Note 4
B10.20	3	33%	0%	0%	See Note 4

May 23, 1998 through December 01, 1999

Part J, page 2 of 4

Owners: IES Utilities Inc., an Alliant company

P.O. Box 351 Cedar Rapids, IA. 52406 Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Humbolt, IA.

2)

Plant: Duane Amoid Energy Center, Palo, IA. 52324

3) Plant Unit: #1

Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

#### STATUS OF WORK FOR THIRD TEN YEAR INTERVAL

CLASS 1						
B10.30	1	0%	0%	0%	See Note 4	
B12.20	2	0%	0%	0%		
B12.50	45	6%	0%	0%	See Note 3	
B13.10	36	37%	0%	0%		
B13.20	11	36%	0%	0%		
B13.30	27	4%	0%	0%		
B13.40	5	20%	0%	0%		
B14.10	3	0%	0%	0%		
B15.10	1	N/A	N/A	N/A	Once per refueling outage	
B15.11	1	N/A	N/A	N/A	Once per interval	

CL	ASS	2	

ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	REMARKS
C1.10	2	50%	0%	0%	
C1.20	1	0%	0%	0%	
C2.21	2	0%	0%	0%	
C2.22	2	0%	0%	0%	
C3.10	1	0%	0%	0%	See Note 4
C3.20	7	29%	0%	0%	See Note 4
C5.51	69	17%	0%	0%	
C5.81	1	100%	0%	0%	
C7.10	5	N/A	N/A	N/A	Once per period
C7.20	5	N/A	N/A	N/A	Once per interval

#### **CLASS I SUPPORTS**

ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	REMARKS
F1.10	42	33%	0%	0%	See Note 5
F1.20	52	27%	0%	0%	See Note 5
F1.40	20	40%	0%	0%	See Note 5

May 23, 1998 through December 01, 1999

Part J, page 3 of 4

Owners: IES Utilities Inc., an Alliant company
 P.O. Box 351
 Cedar Rapids, IA. 52406

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

### STATUS OF WORK FOR (IWE) FIRST TEN YEAR INTERVAL

CLASS MC					
E1.11	3	33%	0%	0%	
E1.12	31	19%	0%	0%	
E1.20	8	38%	0%	0%	
E4.11	1	0%	0%	0%	See Note 9
E5.30	4	25%	0%	0%	Sec Note 9
E8.10	14	31%	0%	0%	
E9.20	*	N/A	N/A	N/A	See Note 10

May 23, 1998 through December 01, 1999

Part J, page 4 of 4

 Owners: IES Utilities Inc., an Alliant company P.O. Box 351 Cedar Rapids, IA. 52406

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

#### STATUS OF WORK FOR THIRD TEN YEAR INTERVAL

NOTE 1 - Item Numbers B3.90, B3.100

There are a total of 34 nozzies, however 1 of the nozzles are exempt by IWB-1220(c) and not included in the percentages.

NOTE 2 - Item Numbers B4.11, B4.12, B4.13

These items are required to be examined during conduct of the system hydrostatic test, IES Utilities has implemented Code Case N-498-1 (TAP-P011)

NOTE 3 - Item Numbers B6.180, B6.190, B6.200, B7.50, B7.60, B7.70, B7.80

These examinations are performed when the component is disassembled for other reasons. Therefore IWX-2412-1 does not apply.

NOTE 4 - Item Numbers B10.10, B10.20, B10.30, C3.10, C3.20
These item numbers are from Code Case N509 (TAP-I007)

NOTE 5 - Item Number F1.10, F1.20, F1.40
These item numbers are from Code Case N491 (TAP-I008)

NOTE 6 - Item Number B9.12

There are no welds counted for this item number because of the use of Code Case N-524 (NDE-R012)

NOTE 7 - Item Number B1.30

50% of the shell-to-flange weld may be performed during the first and third inspection periods as allowed by Note 4 of Table IWB-2500-1.

NOTE 8 - Item Number B3.90, B3.100, B5.10

Relief Request NDE-R035 allows alternative percentages (ref. Code Case N-598).

NOTE 9 - Item Number E4.11

The DAEC has evaluated the need for augmented examination per this item number and has determined that the Torus should be examined twice per interval. Details are specified in Technical Approach and Position TAP-E002.

NOTE 10 - Item Number E9.20

There are no components identified under this item number because the DAEC has been approved to use Option B of Appendix J. The "Performance Based Containment Testing Program" contains the requirements.

May 23, 1998 through December 01, 1999

Part K, page 1 of 1

Owners: IES Utilities Inc., an Alliant company
 P.O. Box 351
 Cedar Rapids, IA, 52406

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA, 52324

3) Plant Unit: #1

) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

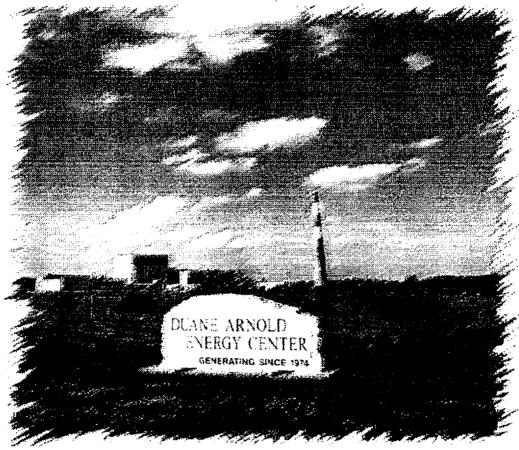
Gross Generating Capacity: 565 MWE

#### **RELIEF REQUESTS**

The following are the relief requests that were used during the period of this Summary Report.

RELIEF REQUESTS	DESCRIPTION
NDE-R004	Repair of "D" outboard MSIV, relief from IWA/IWB-4000 requirements
NDE-R008	Limited examination of Reactor Water Cleanup Weld CUB-F004
NDE-R013	Expansion criteria for welds governed by Generic Letter 88-01 & NUREG 0313,
	Rev. 2
NDE-R014	Exemption from Appendix III calibration block notch dimensions
NDE-R015	Use of the 1989 Addenda of Section XI to govern repair procedures (IWX-4000) replacements (IWX-7000)
NDE-R015 Rev. I	Use of the 1992 Addenda of Section XI to govern repair/replacement procedures (IWA-4000)
NDE-R027	Limited Examination of Closure Head Threads in Vessel Flange
NDE-R028	Limited Examination of Nozzle-to-Vessel Welds
<b>ALTERNATIVE TESTING</b>	DESCRIPTION
NDE-R012	Alternative Examination of Class 1 and 2 piping longitudinal seam welds
NDE-R017	Use of the examination requirements, examination method, and acceptance
	standard of the 1989 Addenda of ASME Section XI for reactor vessel closure
	head nuts
NDE-R018	Alternative Rules for the selection and examination of Class 1, 2, and 3
·	integrally weided attachments
NDE-R023	Inaccessible welds located in Containment Penetrations
PR-002	Alternative Testing for Class2 Pressure Retaining Containment Penetrations
	connected to nonsafety related piping systems
PR-004	Alternative testing for ISI Class 1, 2 and 3 repaired/replaced components. Code Case N-416-1
TAP-I005	Selection of B-J welds for examination criteria
TAP-I006	Selection of C-F pressure retaining welds for examination
MC-R001	Qualification of Nondestructive Examination Personnel
MC-R002	Alternative to VT-3 for Seals and Gaskets
MC-R003	Alternative to Torque Test of Bolting
CODE CASE #	DESCRIPTION
N-416-1 (PR-004)	Alternative pressure testing requirements for welded repairs or installation or replacement items by welding, Class 1, 2, and 3.
N-491 (TAP-1008)	Alternative rules for examination of Class 1, 2, 3 and MC component supports
N-509 (TAP-1007)	Alternative rules for selection and examination of Class 1, 2, 3 and integrally welded attachments
N-508-1 (NDE-R033)	Rotation of serviced snubbers and pressure relief valves for the purpose of testing
N-546 (PR-008)	Alternative requirements for Qualification of VT-2 Examination Personnel
N-598 (NDE-R035)	Alternative Requirements to Required Percentages of Examinations
N-601 (MC-R007)	Extent and Frequency of VT-3 Visual Examination for Inservice Inspection of
. ,	Metal Containments

25 Years of



Rock Solid Performance

ASME Section XI Summary Report

Duane Arnold Energy Center

Refueling Outage 16

(Period 2)

November 01, 1999 through December 01, 1999

### DUANE ARNOLD ENERGY CENTER

UNIT #1 PALO, IOWA

Commercial Service Date: February 1, 1975

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION SUMMARY REPORT

November 1, 1999 through December 1, 1999

Dated: December 1, 1999

OWNER:

IES UTILITIES INC., AN ALLIANT COMPANY

P.O. Box 351

Cedar Rapids, Iowa 52406

Prepared by:	ASME/NDE Specialist	Date:	1/18/2000
Reviewed by:	NDE Level III	Date: _	1-24-00
Reviewed by:	Program Engineering Staff	Date: _	1-24-00
Reviewed by:	Equipment Monitoring Group, Team Leader	Date:	1-26-00
Concurred by:	Supervising Engineer, Program Engineering	Date:	1-31-00

November 01, 1999 through December 01, 1999

#### TABLE OF CONTENTS

PART	DESCRIPTION	PAGE NO.
A	Form NIS-1	pages i-2
В	Certificate of Inservice Inspection	pages 1-2
С	Abstract	page l
D	Table of Component and Weld Examination Identification Records	pages 1-2
Ε	Table of Additional and Successive Examinations Identification	page i
	Records	
F	Abstract of ASME Section XI Repairs and Replacements	page i
G	Form NIS-2's	page 1
Н	Abstract of Conditions Noted and Corrective Measures Taken	page l
I	ISI Figures and Isometrics	pages 1-14
j	Status of Work for Second Ten Year Interval	pages 1-4
K	Listing of Relief Requests and Code Cases Utilized	page l

# FORM NIS-1 OWNER'S DATA REPORT FOR INSERVICE INSPECTIONS As Required by the Provisions of the ASME Code Rules

1. Owner: IES Utilities Inc., an Alliant company, P. O. Box 351, Cedar Rapids, IA 52406	(Note 2)
(Name and address of Owner)	(
2. Plant: Duane Arnold Energy Center, 3277 DAEC Road. Palo, IA 52324	
(Name and Address of Plant)	
3. Plant Unit 4. Owner Certificate of Authorization (if required)	N/A
5. Commercial Service Date 02/01/75 6. National Board Number of Unit	N/A
7. Components Inspected	
This report includes a Table of Contents (P1), Part A (PP1-	
2), Part B (PP1-2), Part C (P1), Part D (PP1-2), Part E (P1),	
Part F (P1), Part G (P1), Part H (P1), Part I (PP1-14), Part J	
(PP1-4), and Part K (P1).	

Component or Appurtenance	Manufacturer or installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Reactor Pressure Vessel (RPV)	Chicago Bridge & Iron	3-4833	N/A	3663
Refer to Part	B, Pages 1-2, of thi	s report for a contir	nuation of compone	nts examined
<b></b>				
<u></u>				
<del></del>				
	<del> </del>			<del></del>

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8.5 X 11 inches, (2) information in items 1 through 6 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

November 01, 1999 through December 01, 1999

Part A, Page 2 of 2

#### FORM NIS-1 (back)

8. Examination Dates 11/01/99 to 12/01/99 9. Inspection Interval from 11/01/96 to 12/01/05

10. Abstract of Examinations. Include a list of examinations and a for current interval.	statement concerning status of work required
Refer to Part C, Part D, and Part J.	
11. Abstract of Conditions Noted Refer to Part H.	
12. Abstract of Corrective Measures Recommended and Taken Refer to Part H.	
We certify that the statements made in this report are commeasures taken conform to the rules of the ASME Code, Section X	rect and the examinations and corrective
Date <u>Feb 7,</u> 2000	- \1 \A\\\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\
Signed / Full Von ! / / Wallewrick By C	Eary Van Middleswirth, Site General Mgr
Certificate of Authorization No. (if applicable)	Expiration Date
CERTIFICATE OF INSERVICE	INSPECTION
I, the undersigned, holding a valid commission issued by the N Inspectors and/or the State or Province of <a href="Iowa">Iowa</a> and employed by inspected the components described in this Owner's Data Report d state that to the best of my knowledge and belief, the Owner has measures described in this Owner's Data Report in accordance Section XI.	Hartford Boiler Co. of Hartford CT have uring the period 11/01/99 to 12/01/99, and performed examinations and taken corrective
By signing this certificate neither the inspector nor his employe concerning the examinations and corrective measures described neither the Inspector, nor his employer shall be liable in any mann or a loss of any kind arising from or connected with this inspection	in this Owner's Data Report. Furthermore, er for any personal injury or property damage
Date 2/18/ 2000.	
H	Commissions 1/872 ANF, 1422E4
Inspector's Signature	National Board, State, Province and No.

As per letter NG-89-3390, the ASME Section XI "Vessels." RHR Heat Exchangers 1E-201A and 1E-201B and the Reactor

Note 2: Other owners are Central Iowa Power Cooperative and Corn Belt Power Cooperative.

Vessel are excluded from the Summary Report to the State.

Note 1:

November 01, 1999 through December 01, 1999

Part B, page 1 of 2

Owners: IES Utilities Inc., an Alliant company
 P.O. Box 351

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA, 52324

Cedar Rapids, IA. 52406

3) Plant Unit: #1

) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

### CERTIFICATE OF INSERVICE INSPECTION

#### COMPONENTS EXAMINED:

#### Reactor Pressure Vessel:

Manufacturer:

Chicago Bridge and Iron Post Office Box 13308

Memphis, TN 38113

National Board Number 3663, Mfr. Serial Number 3-4833

Refer to Part A, Page 1, form NIS-1, Owners Data Report for Inservice Inspections.

#### Piping:

Manufacturers, sizes, part numbers and locations are noted and traceable through the piping isometric and piping instrumentation drawings (P&ID). Installation contractor, fabricator, systems P&ID's and Isometric drawings are listed below.

#### Constructor:

Bechtel Power Co. P.O. Box 3865 San Francisco, CA 94119

#### Fabricator -

Southwest Fabricating and Welding Co. P.O. Box 9449
Houston, TX 77011

November 01, 1999 through December 01, 1999

Part B, page 2 of 2

1)	Owners: IES Utilities Inc., an Alliant company P.O. Box 351 Cedar Rapids, IA. 52406	Central Iowa Power Cooperative Marion, IA.	Corn Belt Power Cooperative Humbolt, IA.
21	Blant: Duama Armald Francis Course But 14		

2) Plant: Duane Arnold Energy Center, Palo, IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

#### CERTIFICATE OF INSERVICE INSPECTION

#### **COMPONENTS EXAMINED:**

CLASS 1	
Component	Iso No
VESSEL STUD AND LIGAMENT	1.1-05
Main Steam	1.2-02
CRD Return	1.2-12A
RCIC-Water	1.2-18
Recirculation Pump 'A' and Discharge Valve By-Pass	1.2-19A
Recirculation Manifold 'B' and Risers A,B,C,D	1.2-22
Reactor Vessel Instrumentation N-12B	1.2-31
Recirculation Pump 'B'	1.3-03
IVVI	****
Component	Iso No
Top Head Assembly	VS-01-06
Guide Rod Bracket	VS-01-28
Ledge Segment Plates	VS-02-11
Sample Holder	VS-10-02
CLASS 2	:
Component	Iso No
RHR Heat Exchanger	2.1-01

November 01, 1999 through December 01, 1999

Part C, page 1 of 1

Owners: IES Utilities Inc., an Alliant company
P.O. Box 351
Cedar Rapids, IA: 52406

Central Iowa Power Cooperative Marion, IA.

Com Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA, 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

#### CERTIFICATE OF INSERVICE INSPECTION

#### **ABSTRACT:**

The Inservice Inspection addressed in this report was performed in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI 1989 Edition, No Addenda, and the Duane Amold Energy Center Updated Final Safety Analysis Report. The inspections were performed utilizing Non-Destructive Examination Techniques (i.e., UT, PT, MT, etc.). The examinations were conducted during the period of November 1, 1999 through December 1, 1999. The specific details and associated records of the examinations are on file at IES Utilities Inc.

November 01, 1999 through December 01, 1999

Part D, page i of 2

1) Owners: IES Utilities Inc., an Alliant company

P.O. Box 351 Cedar Rapids, IA. 52406 Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Humbolt, IA.

2) Plant: Duane Arnoid Energy Center, Palo, IA, 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

### COMPONENT AND WELD EXAMINATION IDENTIFICATION RECORDS

			LASS 1			
Component	Description	ISI Report	Examination	ISI Iso	ASME XI Category	Results
RPV Stud/Nut and Ligaments	(21-40)	199001	UT	1.1-05	B-G-1	Accepted
	CLSR HD-NUTS (21-40)	199002	VT-1	1.1-05	B-G-1	Accepted
	CLSR HD-STUDS (21-40)	199003	UT	1.1-05	B-G-1	Accepted
	CLSR HD-WSHRS (21-40)	199004	VT-1	1.1-05	B-G-1	Accepted
Main Steam	MSB-D001	199112	UT0 UT45	1.2-02	B-D	Accepted
	MSB-D001-INNER RAD	199113	UT60 UT70	1.2-02	B-D	Accepted
Control Rod Drive Return	CRA-F004	199030	PT	1.2-12A	B-F	Accepted
Reactor Core Isolation Cooling	RSB-J001	199033	MT UT45	1.2-18	B-J	Accepted
	RSB-J011	199034	MT UT45	1.2-18	B-J	Accepted
Recirculation Pump Suction	RCA-D001	I99114	UT0 UT45 UT60	1.2-19A	B-D	Accepted
	RCA-D001-INNER RAD	199115	U <b>T70</b>	1.2-19A	B-D	Accepted
	RCA-F002	199139	PT UT45RL UT60RL	1:2-19A	B-F	Accepted
Recirculation System Riser	RRC-F002	199116	PT UT45RL UT60RL UT70RL	1.2-22	B-F	Accepted
	RRC-J004	I <b>99044</b>	PT UT45	1.2-22	B-J	Accepted
	RRC-J005	199045	PT UT45	1.2-22	B-J	Accepted

November 01, 1999 through December 01, 1999

Part D Page 2 of 2

Owners: IES Utilities Inc., an Alliant company
 P.O. Box 351

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Cedar Rapids, IA. 52406

Humboit, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA, 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: NA

Gross Generating Capacity: 565 MWE

### COMPONENT AND WELD EXAMINATION IDENTIFICATION RECORDS

		CLAS	S I con't			
Component	Description	ISI R <b>e</b> port	Examination	ISI Iso	ASME XI Category	Results
Reactor Vessel Instrumentation	VID-D001	199117	UT0 UT45 UT60	1.2-31	B-D	Accepted
	VID-D001-INNER RAD	199118	UT70	1.2-31	B-D	Accepted
Recirculation Pump	RPB-K004A	199062	VT-3	1.3-03	F-A	Accepted
	RPB-K005	199063	VT-3	1.3-03	F-A	Accepted
Reactor Pressure	Vessel Head	199123	VT-3	VS-01-06	B-N-1	Accepted
Vessel Internals	GUIDE ROD BRT (180)	199111	VT-3	VS-01-28	B-N-1	Accepted
	SHROUD LEDGE 180-360	199111	VT-3	VS-02-11	B-N-1	Accepted
	SAMPLE HOLDER- 288 DEG	199111	VT-3	VS-10-02	B-N-1	Accepted

·		CL.	ASS 2			
Component	Description	ISI Report	Examination	ISI Iso	ASME XI Category	Results
RHR Heat Exchanger	HEA-CC-8(01)	199066	VT-3	2.1-01	F-A	Accepted

		CLASS 2 PRE	SSURE TEST	rs	***************************************	
CRD (HCU) Inservice Pressure Test	STP NS550001	199119	VT-2	ISONO-P	С-Н	Accepted
Core Spray Functional Pressure Test	STP NS510002	199120	VT-2	ISONO-P	С-Н	Accepted

		IWE COM	IPONENTS			
DryWell	Head Bolts	I99138	VT-1	N/A	E-G	Accepted

November 01, 1999 through December 01, 1999

Part E, page 1 of 1

1) Owners: IES Utilities Inc., an Alliant company

P.O. Box 351 Cedar Rapids, IA, 52406 Central Iowa Power Cooperative Marion, IA.

Com Belt Power Cooperative

Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA, 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

### ADDITIONAL EXAMINATION IDENTIFICATION RECORDS

		Cla	ass i	A RECORDS	
Original Component Examined	Expanded Component	ISI Report Number	Examination	ASME XI Category	Results

THERE WERE NO ADDITIONAL EXAMINATION PERFORMED DURING THE SECOND PERIOD

### SUCCESSIVE EXAMINATION IDENTIFICATION RECORDS

	<b>V</b>	Cl	ass I		
Component Examined	Previous ISI Report Number	ISI Report Number	Examination	ASME XI Category	Results

THERE WERE NO SUCCESSIVE EXAMINATIONS PERFORMED DURING THE SECOND PERIOD

November 01, 1999 through December 01, 1999

Part F, page I of I

Owners: IES Utilities Inc., an Alliant company
 P.O. Box 351
 Cedar Rapids, IA, 52406

Central Iowa Power Cooperative Marion, IA.

Com Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required) N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

### ABSTRACT OF ASME SECTION XI REPAIRS AND REPLACEMENTS

The repairs and replacements addressed in this report were performed in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, 1989 Edition, 1989 Addenda (Ref. Relief Request NDE-R015), 1992 with the 1992 Addenda (Ref. Relief Request NDE-R015 Rev. 1).

THERE WERE NO ASME SECTION XI REPAIRS OR REPLACEMENTS COMPLETED UNDER THE SECOND PERIOD. ALL REPAIRS AND REPLACEMENTS WERE COMPLETED AND SUBMITTED UNDER THE FIRST PERIOD OF THE THIRD TEN YEAR INTERVAL SUMMARY REPORT.

November 01, 1999 through December 01, 1999

Part G, page 1 of 1

1) Owners: IES Utilities Inc., an Alliant company P.O. Box 351
Cedar Rapids, IA, 52406

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA, 52324

3) Plant Unit: #1

Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

#### Form NIS-2's

THERE ARE NO NIS-2's INCLUDED IN THIS SUMMARY REPORT. THEY ARE INCLUDED IN THE FIRST PERIOD SUMMARY REPORT

November 01, 1999 through December 01, 1999

Part H, page I of 1

Owners: IES Utilities Inc., an Alliant company P.O. Box 351 Cedar Rapids, IA, 52406

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Marion, IA.

Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA, 52324

3) Plant Unit: #1

Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

### ABSTRACT OF CONDITIONS NOTED AND CORRECTVIE MEASURES TAKEN:

The corrective measures are addressed in this report and were performed in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, 1989, with 1989 Addenda (Ref. Relief Request NDE-RO15), 1992 with the 1992 Addenda (Ref. Relief Request NDE-R015 Rev. 1), and the Duane Arnold Energy Center Updated Final Safety Analysis Report. The corrective measures performed as Repairs or Replacements are listed in Part F of this report and are documented, using Form NIS-2, in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Section XI, 1989, 1989 Addenda or 1992, 1992 Addenda. Specific details and associated records of additional corrective measures are on file at IES Utilities Inc. The corrective measures addressed were performed during the period of November 01, 1999 through December 01, 1999.

November 01, 1999 through December 01, 1999

Part I, page I of 14

Owners: IES Utilities Inc., an Alliant company P.O. Box 351

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Cedar Rapids, IA. 52406

Humboit, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA. 52324

3) Plant Unit: #1

Owners Certificate of Authorization (if required): N/A 4)

5) Commercial Service Date: 02/01/75

National Board Number of Unit: N/A

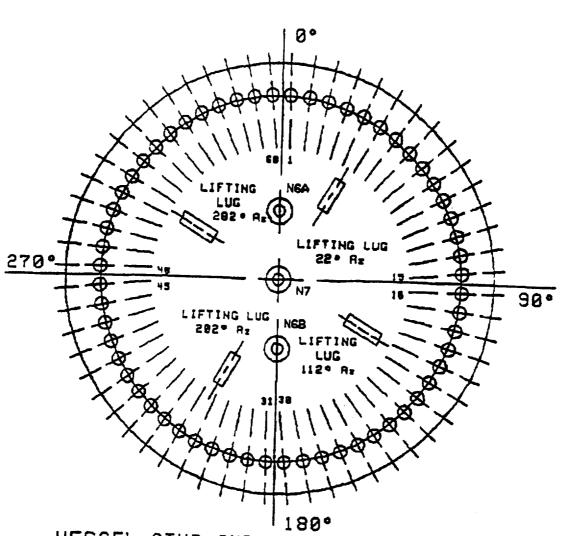
Gross Generating Capacity: 565 MWE

#### ISI FIGURES AND ISOMETRICS

PLEASE NOTE: ISI Figures and Isometrics are listed in Part B and Part E of this report

Part i, page 2 of 14

Control of the second of the s

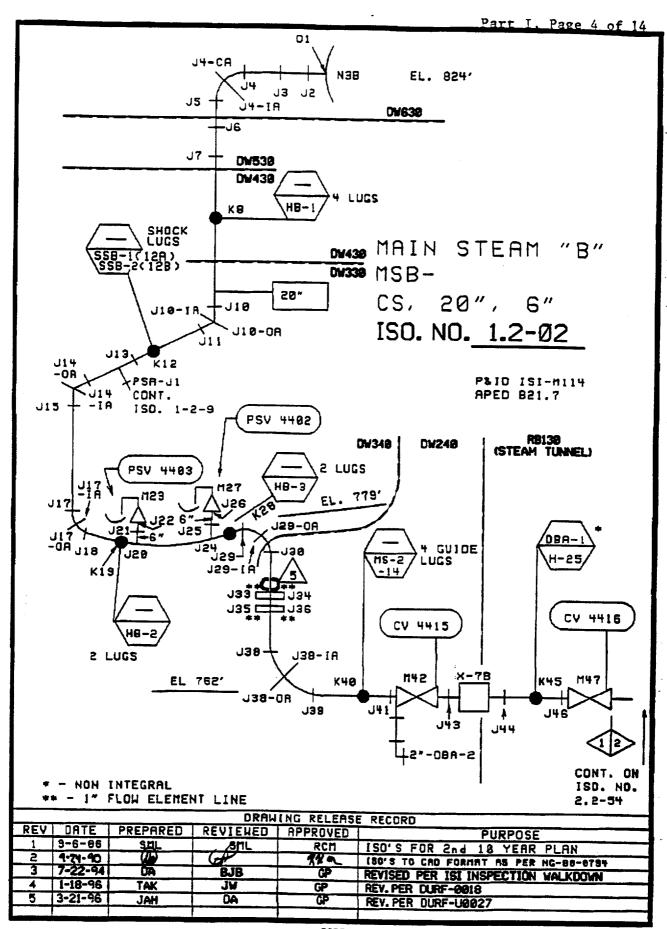


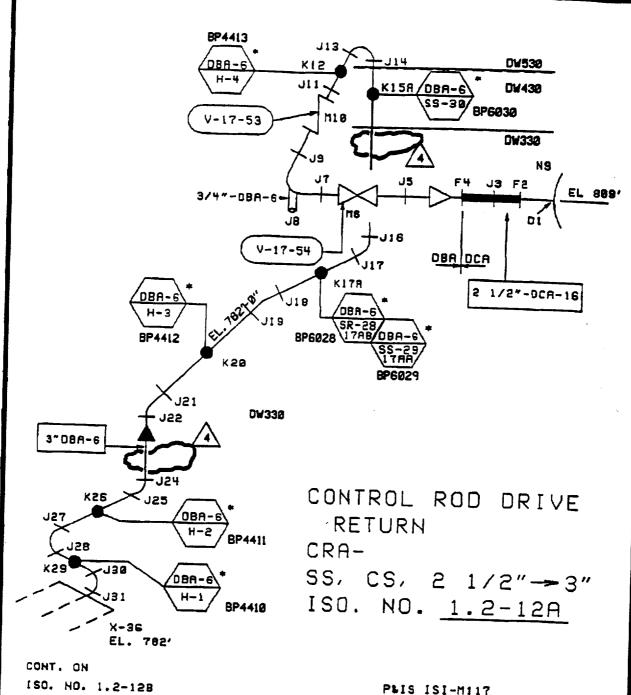
VESSEL STUD AND LIGAMENT LOCATION

Figure No. <u>1.1-05</u>

PR-Pressure Retaining
R-Studs
B-Nuts
C-Bushings
D-Washers
E-Ligaments

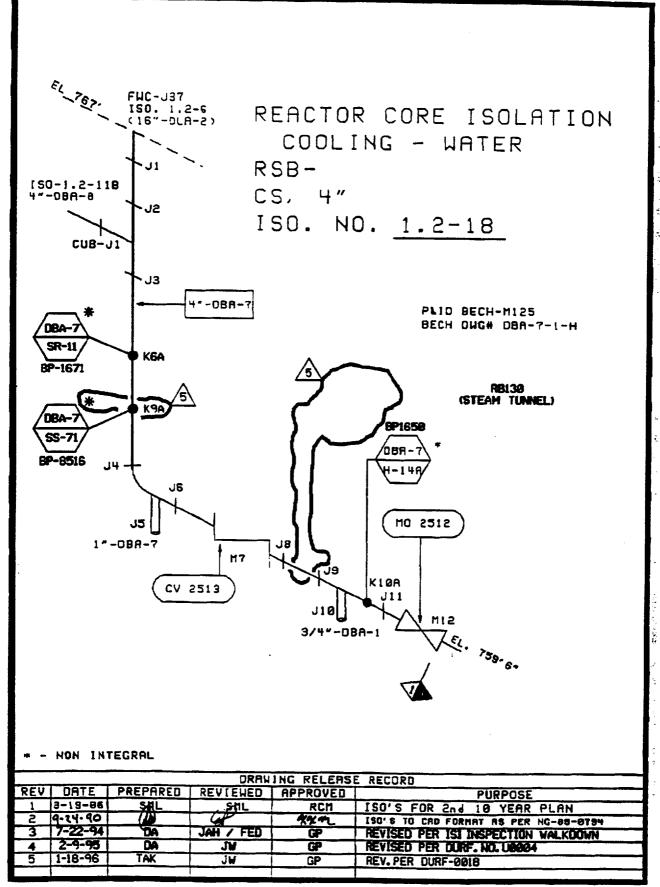
			DRAN	ING RELEAS	E RECORD
REV		PREPARED	REVIEWED	APPROVED	
_1	4-9-8E	SML	SHL		TURFUSE
	9-24-98	OR	GP	KKH	ISO'S FOR 2nd 18 YEAR PLAN
3	5-13-91	OR	62	970	150'S TO CHO FORMAT HS PER HG-83-6784
4	7-22-94	DA	FED		THE PERSON NAMED IN COLUMN TO PERSON NAMED IN PARTY OF THE PERSON NAMED IN
5	7.16.95	DA	DF	20	REVISED PER ISI INSPECTION WALKDOWN
6	3/11/96	JAH	TAK	GP	DELETED DWG PER DURF-013 RE-ISSUED PER DURF-0025

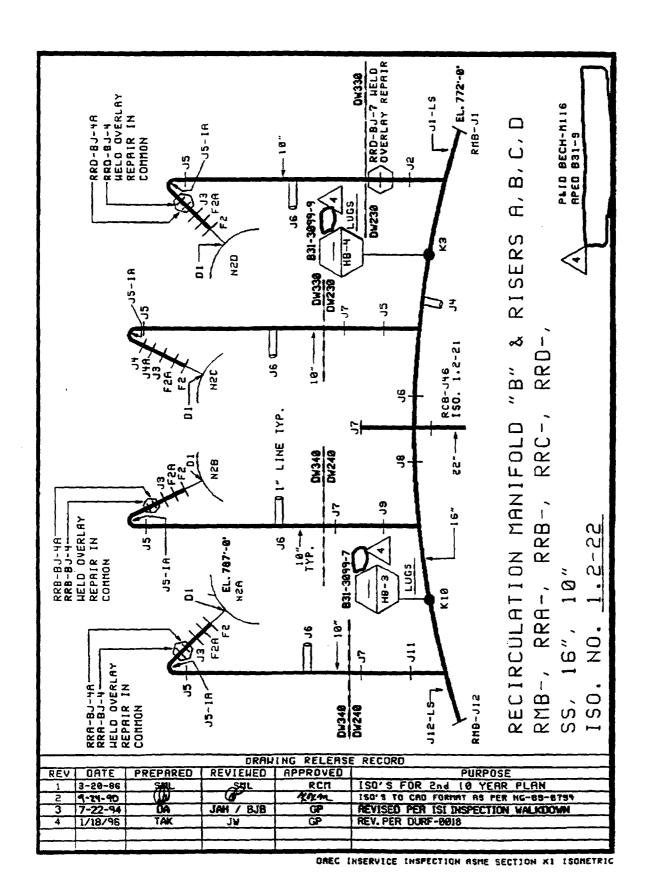


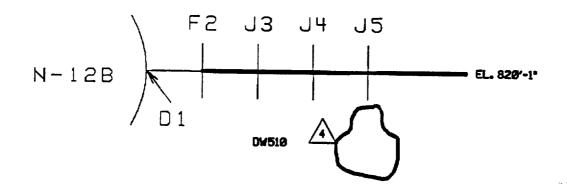


P&IS ISI-M117 BECH. DWG# DBR-6-1-H

·			DRAH	ING RELEASE	RECORD
REV	DATE	PREPARED	REVIEWED	APPROVED	PURPOSE
<u>_</u> _	3-13-86	SUL	. ALL		ISO'S FOR 2nd 10 YEAR PLAN
<del></del>	1-74-90		(7)	42m	ISO'S TO CAD FORMAT AS PER NG-89-0784
-3-	7-22-94	DA	JAH / FED	GP	REVISED PER ISI INSPECTION WALKDOWN
	7-6-95	DA	JDF	GP	REVISED PER DURF-0013
<b>-</b>					



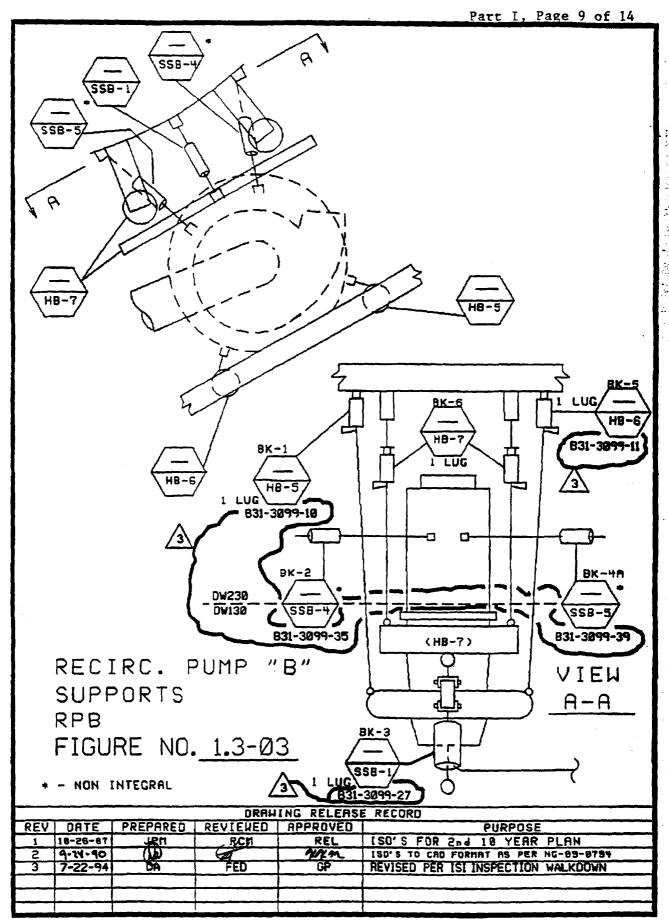


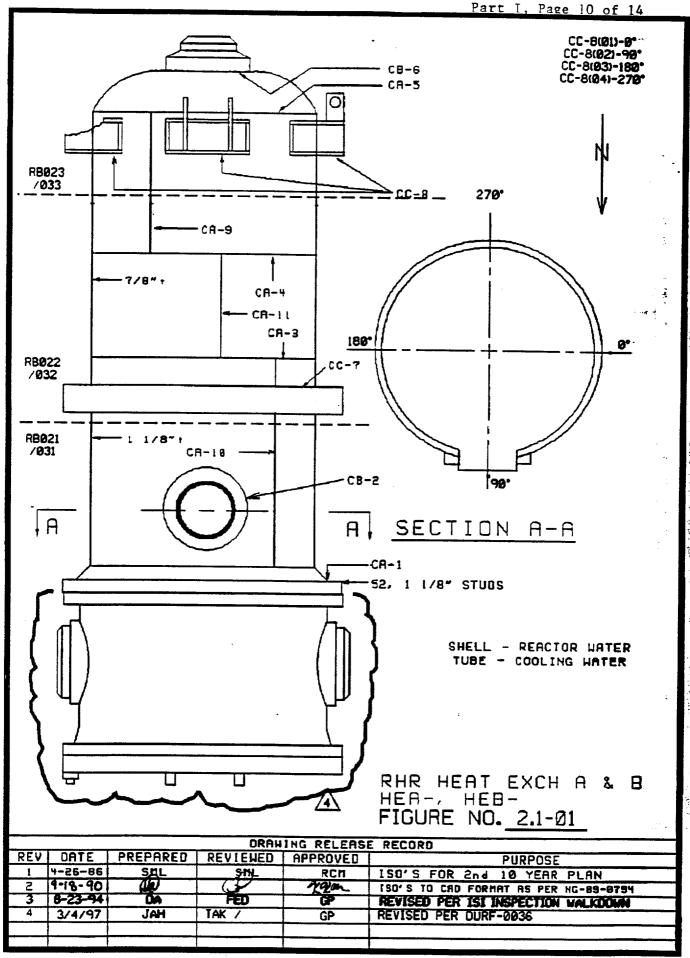


VESSEL INSTRUMENTATION N-12B VID-SS, 2", 2 1/2" ISO. NO. 1.2-31

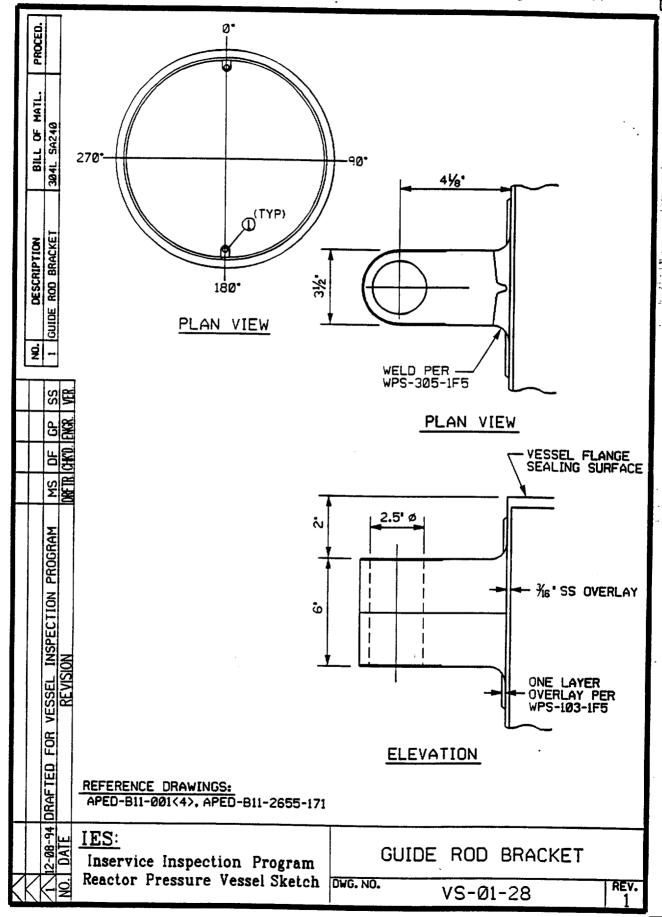
P&ID BECH-M115

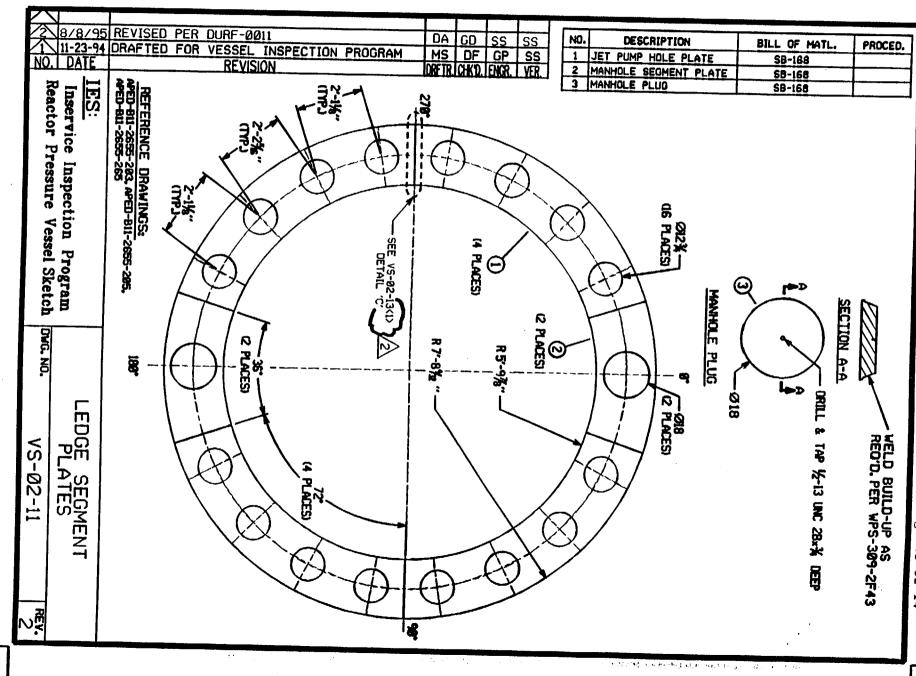
			DRAH	ING RELEAS!	E RECORD
REV	DATE	PREPARED	REVIEWED	APPROVED	PURPOSE
1	3-27-86	SAIL	/ /JIL	RCM	ISO'S FOR 2nd 10 YEAR PLAN
2	9-24-90	(11)	d	KKM	160'S TO CAD FORMAT AS PER NG-85-8784
3	7-22-94	DA	JAH / FED	GP	REVISED PER ISI INSPECTION WALKDOWN
4	1/18/96	TAK	JW	GP	REV. PER DURF-0018
1					



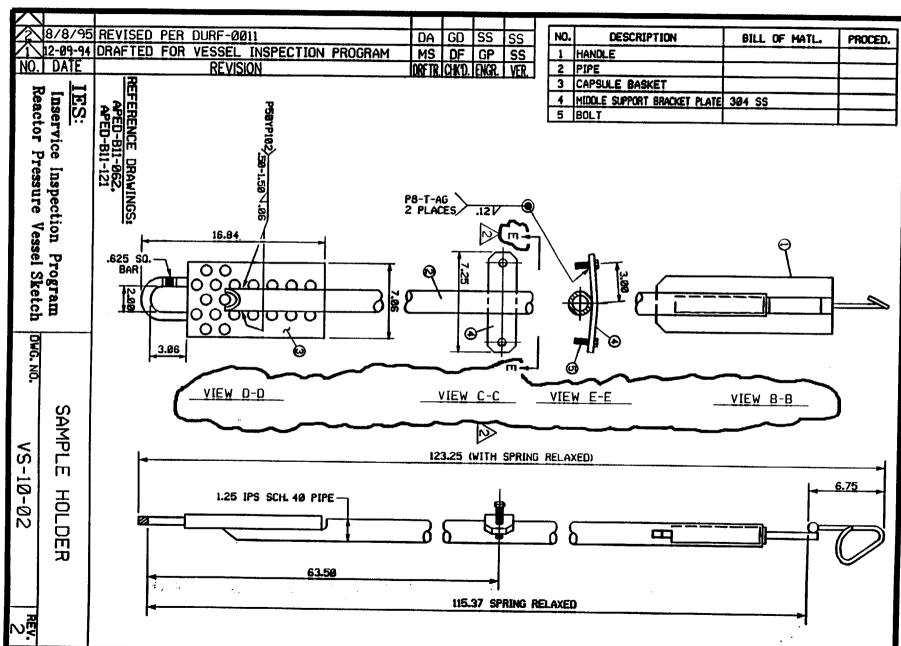


1	_	_							rart 1	, Page II of	14
	22000	rruceu.				SEE V DETAI	(S-01-40<2) L 8	36"	NGA /	SEE VS-01-3° DETAIL 10 (HCC-B2)	3<2>
	Bit OF MAT	ᆲ	CLASS	A-508 C	(SEE VS-01-16) 309L		58½"   12¾	461/2"	35%	82%"	5 <del>-0</del> 1-39(2) . 8 1)
	DESCRIPTION	SIDE PLATE	DOLLAR PLATE	LIFTING LUG HEAD SPRAY & INSTR. NDZZ.	ST LAYER SEAL SUFFACE CLADDING 3091		1	897/ <sub>2</sub>		GEALING SURFA SS BUILD WPS-103-1 WPS-143-4	ACE(7)&(A)
	8	- (	7 6	4 10 0				A	'	g"Ø (TYP <b>.57)</b>	
FFD	SS	SS	EK.		CEE	VC 01 0-	330°	•	2	30°	
_	-		I W		DET	VS-Ø1-39 AIL 9 (TY	(2) (P)	7		6"Ø (TY	P.3)
_	89					Œ				- OHCI	C-CD
_	DA						// and and		(HM)	C-BI)	
REVISED PER DURF-0044	REVISED PER DURF-0011	DAHLIEU FUR VESSEL INSPECTION PROGRAM REVISION	FA	EFEREI PEO-BI PEO-BI	NCE (	70° 267° - 6" Ø - 3 3 3 3 3 5 3 5 5 - 335 4 P 5 - 215	210°	(HMC-B4)  NGA (RHA-D1)  N7  NGB (HMC-B4)  PLAN	5 (HM)	(HCC-B2) (HMC-B2) (-B3) 6" Ø 147" 150°	<b>→ 90°</b>
12/16/97	26 /0 /0	DATE	I	ES:			_		TOP H	EAD	
ZĬ	ò) s	10. NO.	R	eactor	ice i Pre	nspectio essure Ve	n Program essel Sketch	DWG. NO.	ASSEM	BLY	
									VS-Ø1	-06	REV.





Part I, Page 13 of 14



ere til frakt blike greek

Part I, Page 14 of 14

November 01, 1999 through December 01, 1999

Part J, page i of 4

1) Owners: IES Utilities Inc., an Alliant company
P.O. Box 351
Cedar Rapids, IA. 52406

Central Iowa Power Cooperative
Marion, IA.

Central Iowa Power Cooperative
Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

## STATUS OF WORK FOR THIRD TEN YEAR INTERVAL

(Those percentages shown are actual, where the percentages exceed the allowable only the maximum (34% for period one and 67% for period two) will be taken credit for).

		CI	LASS 1		
ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	REMARKS
B1.11	4	0%	0%	0%	
B1.12	8	0%	0%	0%	
B1.21	2	25%	25%	0%	
B1.22	15	0%	0%	0%	
B1.30	I	50%	50%	0%	See Note 7
B1.40	1	33%	33%	0%	
B1.51	1	0%	0%	0%	
B3.90	33	48%	58%	0%	See Note 1,8
B3.100	33	48%	58%	0%	See Note 1,8
B4.11	2	0%	0%	0%	See Note 2
B4.12	89	0%	0%	0%	See Note 2
B4.13	30	0%	0%	0%	See Note 2
B5.10	14	50%	64%	0%	See Note 8
B5.20	8	38%	38%	0%	
B5.130	8	38%	38%	0%	
B5.140	2	0%	50%	0%	
B6.10	60	33%	67%	0%	
B6.20	56	29%	64%	0%	
B6.30	4	100%	100%	0%	
B6.40	60	33%	67%	0%	
<b>B6.50</b>	60	33%	67%	0%	
B6.180	2	0%	0%	0%	See Note 3
B6.190	2	0%	0%	0%	See Note 3
B6.200	2	0%	0%	0%	See Note 3
B7.10	3	33%	33%	0%	
B7.50	5	40%	40%	0%	See Note 3
B7.60	2	0%	0%	0%	See Note 3
B7.70	47	4%	4%	0%	See Note 3
B7.80	89	15%	15%	0%	See Note 3
B9.11	94	22%	27%	0%	
B9.12	0	0%	0%	0%	See Note 6
B9.21	9	22%	22%	0%	Sec Hole o
B9.31	6	17%	17%	0%	
B9.32	1	0%	0%	0%	
B9.40	23	22%	22%	0%	
B10.10	1	0%	0%	0%	See Note 4
B10.20	3	33%	33%	0%	See Note 4

November 01, 1999 through December 01, 1999

Part J, page 2 of 4

Owners: IES Utilities Inc., an Alliant company P.O. Box 351

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Cedar Rapids, IA. 52406

Humbolt, IA.

Plant: Duane Arnold Energy Center, Palo, IA. 52324 2)

3) Plant Unit: #1

Owners Certificate of Authorization (if required): N/A 4)

5) Commercial Service Date: 02/01/75

National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

## STATUS OF WORK FOR THIRD TEN YEAR INTERVAL

	CLASS 1							
B10.30	1	0%	0%	0%	See Note 4			
B12.20	2	0%	0%	0%				
B12.50	45	6%	6%	0%	See Note 3			
B13.10	35	37%	48%	0%				
B13.20	11	36%	36%	0%				
B13.30	27	4%	4%	0%				
B13.40	5	20%	20%	0%				
B14.10	3	0%	0%	0%				
B15.10	1	N/A	N/A	N/A	Once per refueling outage			
B15.11	1	N/A	N/A	N/A	Once per interval			

	CLASS 2								
ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	REMARKS				
C1.10	2	50%	50%	0%					
C1.20	1	0%	0%	0%					
C2.21	2	0%	0%	0%					
C2.22	2	0%	0%	0%					
C3.10	1	0%	0%	0%	See Note 4				
C3.20	7	29%	29%	0%	See Note 4				
C5.51	69	17%	17%	0%					
C5.81	1	100%	100%	0%					
C7.10	5	N/A	N/A	N/A	Once per period				
C7.20	5	N/A	N/A	N/A	Once per interval				

		CLASS 1 AN	D 2 SUPPORTS	S	
ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	REMARKS
F1.10	42	33%	33%	0%	See Note 5
F1.20	52	27%	27%	0%	See Note 5
F1.40	20	40%	45%	0%	See Note 5

November 01, 1999 through December 01, 1999

Part J, page 3 of 4

Owners: IES Utilities Inc., an Alliant company
 P.O. Box 351

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Humbolt, IA.

Cedar Rapids, IA. 52406

Plant: Duane Arnold Energy Center, Palo, IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

2)

Gross Generating Capacity: 565 MWE

### STATUS OF WORK FOR (IWE) FIRST TEN YEAR INTERVAL

	CLASS MC								
E1.11	3	33%	33%	0%					
E1.12	31	19%	19%	0%					
E1.20	8	38%	38%	0%					
E4.11	1	0%	0%	0%	See Note 9				
E5.30	4	25%	25%	0%					
E8.10	14	31%	36%	0%					
E9.20	*	N/A	N/A	N/A	See Note 10				

November 01, 1999 through December 01, 1999

Part J, page 4 of 4

Owners: IES Utilities Inc., an Alliant company
 P.O. Box 351
 Cedar Rapids, IA, 52406

Central Iowa Power Cooperative
Marion IA

Corn Belt Power Cooperative Humbolt, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA. 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

#### STATUS OF WORK FOR THIRD TEN YEAR INTERVAL

NOTE 1 - Item Numbers B3.90, B3.100
There are a total of 34 nozzles, however 1 of the nozzles are exempt by IWB-1220(c) and not included in the percentages.

NOTE 2 - Item Numbers B4.11, B4.12, B4.13
These items are required to be examined during conduct of the system hydrostatic test, IES Utilities has implemented Code Case N-498-1 (TAP-P011)

NOTE 3 - Item Numbers B6.180, B6.190, B6.200, B7.50, B7.60, B7.70, B7.80

These examinations are performed when the component is disassembled for other reasons. Therefore IWX-2412-1 does not apply.

NOTE 4 - Item Numbers B10.10, B10.20, B10.30, C3.10, C3.20 These item numbers are from Code Case N509 (TAP-I007)

NOTE 5 - Item Number F1.10, F1.20, F1.40
These item numbers are from Code Case N491 (TAP-I008)

NOTE 6 - Item Number B9.12
There are no welds counted for this item number because of the use of Code Case N-524 (NDE-R012)

NOTE 7 - Item Number B1.30
50% of the shell-to-flange weld may be performed during the first and third inspection periods as allowed by Note 4 of Table IWB-2500-1.

NOTE 8 - Item Numbers B3.90, B3.100, B5.10
Relief Request NDE-R035 allows alternative percentages (ref. Code Case N-598). 2 of the Nozzleto-safeend welds (RRB-F002 and RRD-F002) have been repaired by applying a weld overlay. These
two welds are now covered by the requirements of Generic Letter 88-01.

NOTE 9 - Item Number E4.11
The DAEC has evaluated the need for augmented examination per this item number and has determined that the Torus should be examined twice per interval. Details are specified in Technical Approach and Position TAP-E002.

NOTE 10 - Item Number E9.20

There are no components identified under this item number because the DAEC has been approved to use Option B of Appendix J. The "Performance Based Containment Testing Program" contains the requirements.

November 01, 1999 through December 01, 1999

Part K. page i of 1

 Owners: IES Utilities Inc., an Alliant company P.O. Box 351 Cedar Rapids, IA. 52406

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humboit, IA.

2) Plant: Duane Arnold Energy Center, Palo, IA, 52324

3) Plant Unit: #1

4) Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

6) National Board Number of Unit: N/A

Gross Generating Capacity: 565 MWE

## **RELIEF REQUESTS**

The following are the relief requests that were used during the period of this Summary Report.

RELIEF REQUESTS	DESCRIPTION
NDE-R014	Exemption from Appendix III calibration block notch dimensions
NDE-R027	Limited Examination of Closure Head Threads in Vessel Flange
NDE-R028	Limited Examination of Nozzle-to-Vessel Welds
<b>ALTERNATIVE TESTING</b>	DESCRIPTION
NDE-R012	Alternative Examination of Class 1 and 2 piping longitudinal seam welds
NDE-R017	Use of the examination requirements, examination method, and acceptance
	standard of the 1989 Addenda of ASME Section XI for reactor vessel closure
	head nuts
NDE-R018	Alternative Rules for the selection and examination of Class 1, 2, and 3
	integrally welded attachments
NDE-R023	Inaccessible welds located in Containment Penetrations
PR-002	Alternative Testing for Class2 Pressure Retaining Containment Penetrations
	connected to nonsafety related piping systems
PR-004	Alternative testing for ISI Class 1, 2 and 3 repaired/replaced components. (Code
	Case N-416-1)
TAP-I005	Selection of B-J welds for examination criteria
TAP-1006	Selection of C-F pressure retaining welds for examination
MC-R001	Qualification of Nondestructive Examination Personnel
MC-R002	Alternative to VT-3 for Seals and Gaskets
MC-R003	Alternative to Torque Test of Bolting
CODE CASE #	DESCRIPTION
N-416-1 (PR-004)	Alternative pressure testing requirements for welded repairs or installation or
	replacement items by welding, Class 1, 2, and 3.
N-491 (1AP-1008)	Alternative rules for examination of Class 1, 2, 3 and MC component supports
N-509 (TAP-I007)	Alternative rules for selection and examination of Class 1, 2, 3 and integrally
	welded attachments
N-546 (PR-008)	Alternative requirements for Qualification of VT-2 Examination Personnel
14-230 (MDE-KU33)	Alternative Requirements to Required Percentages of Examinations
N-606 (MC-R007)	Extent and Frequency of VT-3 for Items E1.12 and E1.20

THIRD TEN YEAR INTERVAL
INSERVICE INSPECTION REPORT
November 01, 1999 through December 01, 1999

Attachment 2 to NG-00-0319 Augmented Inspection Results RFO 16

System Description	Weld or Component Description	Report Number	Inspection Requirement	ISI Iso/ Fig Number	Acc	Examination
RCIC	RSB-J001	199033	В	1.2-18		
	RSB-J002	199035	B	1.2-18	Y	UT45 UT45
	RSB-J003	199036	В	1.2-18	Ÿ	
	RSB-J011	[99034	В	1.2-18	v	UT45
RECIRCULATION PUMP SUCTION	RCA-F002	199139	A	1.2-19A	Y	UT45 UTRL
RECIRCULATION	RRC-F002	199116	A	1.2-22		
SYSTEM RISERS	RRC-J004	199044	A	1.2-22	Y	UT45 UTRL
	RRC-J005	199045	Ä	1.2-22	Y	UT45 UTRL
TANKS	IR-003B (MSRV	199122	<u>;</u>		<u>Y</u>	UT45 UTRL
	ACCUMULATOR TANK)	.,,,,,,,,	C	M048-002-1	Y	VT-3

ACC - ACCEPTED , Y INDICATING ACCEPTED, N INDICATING REJECTED.

- A NUREG 0313 (GL88-01)
  B GENERIC LETTER 87-11
  C OWNER DEFINED

System Description	Weld or Component	Report	Inspection	ISI Iso/ Fig	Acc	Examination
<u> </u>	Description	Number	Requirement	Number	ACC	Examination
Reactor Vessei	CORE SPRAY	199111	В	VS-05-01	Y	EVT-1
	CORESPRAY SPARGERS	199111	В	VS-05-02	Y	EVT-1
	JET PUMP #1	199111	С	VS-11-01	Y	EVT-1
	JET PUMP #2	199111	С	VS-11-01	Y	EVT-1
	JET PUMP #3	199111	С	VS-11-01	Y	EVT-1
	JET PUMP#4	199111	С	VS-11-01	Y	EVT-1
	JET PUMP #13	199111	С	VS-11-01	Y	EVT-1
	JET PUMP #14	199111	С	VS-11-01	Y	EVT-1
	JET PUMP #15	199111	C	VS-11-01	Y	EVT-1
	JET PUMP #16	199111	С	VS-11-01	Y	EVT-1
TORUS SUPPORTS	TORUS SUPPORT #13	199142	Е	N/A	Y	VT-3
	TORUS SUPPORT #14	199143	E	N/A	Y	VT-3
	EARTHQUAKE TIE #4					
	TORUS SUPPORT #15	199144	Ε	N/A	Y	VT-3
	TORUS SUPPORT #16	199145	E	N/A	Y	VT-3
TANKS	1R-001A (ACCUMULATOR	199108	Е	N/A	Y	VT-3
	TANK)					
	1T-115B (NORMAL START	199109	E	N/A	Y	VT-3
	AIR RECEIVER TANK)					
Core Spray 'A'	CSA-F002	199012	A	1.2-07	Y	UT45 UTRL
. ,	CSA-F002A	199013	Α	1.2-07	Y	UT45 UTRL
-	CSA-F004	199014	Α	1.2-07	Y	UTRL
	CSA-J003	199015	A	1.2-07	Ŷ	UT45
RWCU	CUB-F004	199016	A	1.2-11B	Y	UTRL
	CUB-J001	199027	- A	1.2-11B	Ÿ	UT45
	CUB-J002	199028	A	1.2-11B	Ÿ	UT45 UT70
1	CUB-J005	199017	A	1.2-11B	Ŷ	UT60
	CUB-J008	199018	A	1.2-11B	Ŷ	UT60
	CUB-J010	199019	A	1.2-11B	Ÿ	UT45
	CUB-J011	199020	A	1.2-11B	Ÿ	UT45
	CUB-J013	199021	A	1.2-11B	Ŷ	UT45
	CUB-J014	199022	A	1.2-11B	Ÿ	UT45
	CUB-J016	199023	A	1.2-11B	Ÿ	UT60
	CUB-J017	199024	A	1.2-11B	Ŷ	UT60
RHR	RHD-J001	199031	A	1.2-16	Y	UT45
RCIC	RSB-J004	199037	D	1.2-18	Y	UT60
	RSB-J006	199038	D	1.2-18	Ý	UT45
Recirculation Risers	RRA-F002	199052	A :	1.2-22	Y	UT45 UTRL
1.con cultured 1/13013	RRB-F002	199053	Ä	1.2-22	Ϋ́	UT45 UTRL
Recirculation Pump	RRF-F002	199154	A	1.2-19A	Y	UT45 UTRL
Suction	144 -1 VVA	177137	43	1.4 1711		OITS OIRE
Sacron	RCA-J030-OA	199039	E	1.2-19A	Y	PT
	RCA-J030-0A	199040	A	1.2-19A	Ý	UT45
	RCA-J030	199041	Ä	1.2-19A	Ý	UT45
Jet Pump	JPA-F002	199055	A	1.2-25	Y	UT45 UTRL
Jet Lamb	JPA-J003	199056	Ä	1.2-25	Y	UT45 UTAL
	JPB-F002	199057	A	1.2-26	Y	UT45 UTRL
	JPB-J003	199058	A	1.2-26	Y	UT45 OTRL
	NDICATING ACCEPTED, N INDICATING		<u>~</u>	1.4-40	ı	U173

ACC - ACCEPTED, Y INDICATING ACCEPTED, N INDICATING REJECTED.

A - NUREG 0313 (gl88-01)
B - IE-BULLETIN 80-13 (BWRVIP-18)
C - BWRVIP-41

D - GENERIC LETTER 87-11

E - OWNER DEFINED

## Attachment 2 to NG-00-0319 Augmented Inspection Results RFO 16

System Description	Weld or Component Description	Report Number	Inspection Requirement	ISI Iso/ Fig Number	Acc	Examination
RCIC	RSB-J001	I99033	В	1.2-18		UT45
	RSB-J002	199035	В	1.2-18	v	UT45
	RSB-J003	199036	В	1.2-18	v	UT45
	RSB-J011	199034	В	1.2-18	v	UT45
RECIRCULATION PUMP SUCTION	RCA-F002	199139	Α	1.2-19A	Y	UT45 UTRL
RECIRCULATION	RRC-F002	199116	A	1.2-22	V	I FOAS I FEDERAL
SYSTEM RISERS	RRC-J004	199044	A	1.2-22	V	UT45 UTRL
	RRC-J005	199045	Ā	1.2-22	v	UT45 UTRL
TANKS	1R-003B (MSRV ACCUMULATOR TANK)	I99122	C	M048-002-1	Y	VT-3

ACC - ACCEPTED , Y INDICATING ACCEPTED, N INDICATING REJECTED.

- A NUREG 0313 (GL88-01)
  B GENERIC LETTER 87-11
  C OWNER DEFINED

	Weld or Component	Report	Inspection	ISI Iso/ Fig		
System Description	Description	Number	Requirement	Number	Acc	Examination
Reactor Vessel	CORE SPRAY	199111	В	VS-05-01	Y	EVT-1
	CORESPRAY SPARGERS	199111	В	VS-05-02	Y	EVT-1
	JET PUMP #1	199111	С	VS-11-01	Y	EVT-1
	JET PUMP #2	199111	С	VS-11-01	Y	EVT-1
	JET PUMP #3	199111	С	VS-11-01	Y	EVT-1
	JET PUMP#4	199111	С	VS-11-01	Y	EVT-1
	JET PUMP #13	199111	С	VS-11-01	Y	EVT-1
	JET PUMP #14	199111	С	VS-11-01	Y	EVT-1
	JET PUMP #15	199111	С	VS-11-01	Y	EVT-1
	JET PUMP #16	199111	C	VS-11-01	Y	EVT-1
TORUS SUPPORTS	TORUS SUPPORT #13	I99142	E	N/A	Y	VT-3
	TORUS SUPPORT #14	199143	Ē	N/A	Ŷ	VT-3
	EARTHQUAKE TIE #4				•	
	TORUS SUPPORT #15	199144	Е	N/A	Y	VT-3
	TORUS SUPPORT #16	199145	Ē	N/A	Ŷ	VT-3
TANKS	IR-001A (ACCUMULATOR	199108	E	N/A	<u> </u>	VT-3
	TANK)	133100	J	- "	•	1 1 3
	1T-115B (NORMAL START	199109	Е	N/A	Y	VT-3
	AIR RECEIVER TANK)	155105		****	•	, 1 3
Core Spray 'A'	CSA-F002	199012	A	1.2-07	Y	UT45 UTRL
•	CSA-F002 CSA-F002A	199012	Ä	1.2-07	Y	UT45 UTRL
	CSA-F002A CSA-F004	199014	Ä	1.2-07	Ÿ	UTRL
	CSA-1004 CSA-J003	199015	Ä	1.2-07	Y	UT45
	CUB-F004	199016	Ä	1.2-11B	Y	UTRL
RWCU		199016	A	1.2-11B 1.2-11B	Y	UT45
	CUB-J001	199027	A	1.2-11B 1.2-11B	Y	UT45 UT70
	CUB-J002	199028	A	1.2-11B 1.2-11B	Y	UT60
	CUB-J005	199017	A	1.2-11B 1.2-11B	Y	UT60
	CUB-J008	199018	A	1.2-11B 1.2-11B	Y	UT45
	CUB-J010		A	1.2-11B 1.2-11B	Y	UT45
	CUB-J011	199020		1.2-11B 1.2-11B	Y	UT45
	CUB-J013	199021 199022	A	1.2-11B 1.2-11B	Y	UT45
	CUB-J014	199022	A	1.2-11B 1.2-11B	Y	UT60
	CUB-J016	199023	A	1.2-11B 1.2-11B	Y	UT60
DUD	CUB-J017	199024	A	1.2-116	<u> </u>	UT45
RHR	RHD-J001		A D	1.2-18	<u>Y</u>	UT60
RCIC	RSB-J004	199037	_			
	RSB-J006	199038	D	1.2-18	Y	UT45
Recirculation Risers	RRA-F002	199052	A	1.2-22	Y	UT45 UTRL
	RRB-F002	199053	<u>A</u>	1.2-22	<u>Y</u>	UT45 UTRL
Recirculation Pump	RRF-F002	199154	Α	1.2-19A	Y	UT45 UTRL
Suction			_			n.m.
	RCA-J030-OA	199039	E	1.2-19A	Y	PT
	RCA-J038	199040	A	1.2-19A	Y	UT45
	RCA-J041	199041	A	1.2-19A	Y	UT45
Jet Pump	JPA-F002	199055	A	1.2-25	Y	UT45 UTRL
	JPA-J003	199056	A	1.2-25	Y	UT45
	JPB-F002	199057	A	1.2-26	Y	UT45 UTRL
	JPB-J003 INDICATING ACCEPTED, N INDICATING	199058	A	1.2-26	Y	UT45

ACC - ACCEPTED, Y INDICATING ACCEPTED, N INDICATING REJECTED.

A - NUREG 0313 (gl88-01) B - IE-BULLETIN 80-13 (BWRVIP-18)

C - BWRVIP-41 D - GENERIC LETTER 87-11

E - OWNER DEFINED