

#### **Duane Arnold Energy Center**

Operated by Nuclear Management Company, LLC

July 18, 2003

NG-03-0509 10 CFR 50.55a

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

DUANE ARNOLD ENERGY CENTER **DOCKET 50-331** LICENSE No. DPR-49 INSERVICE INSPECTION REPORT

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), Nuclear Management Company, LLC (NMC) herewith submits the Refueling Outage (RFO) 18 Inservice Inspection Summary Reports (Attachments 1 and 2). These reports address examinations which were performed at the Duane Arnold Energy Center (DAEC) during the time period from May 28, 2001 through April 20, 2003.

Attachment 3 provides information regarding augmented inservice inspections performed during RFO 18. These inspections include those performed for NUREG-0313, Revision 2, "Technical Report on Material Selection and Processing Guidelines for BWR Coolant Pressure Boundary Piping," NUREG-0619, "BWR Feedwater Nozzle and Control Rod Drive Return Line Nozzle Cracking," and Bulletin 80-13, "Cracking in Core Spray Spargers."

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

This letter contains no new commitments.

Sincerely

Site Vice President, Duane Arnold Energy Center

Attachments 1. ASME Section XI Summary Report, Duane Arnold Energy Center, Refueling Outage 18 (Period 2)

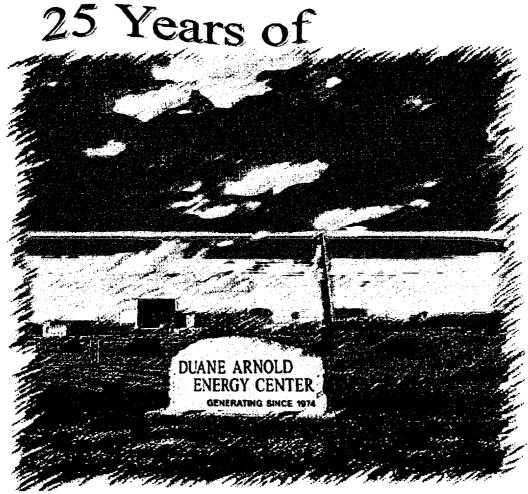
2. ASME Section XI Summary Report, Duane Arnold Energy Center, Refueling Outage 18 (Period 3)

3. Augmented Inspection Results RFO 18

CC. Regional Administrator, USNRC, Region III Project Manager (DAEC)

NRC Resident Inspector (DAEC)

Attachment 1 to NG-03-0509
ASME Section XI Summary Report
Duane Arnold Energy Center
Refueling Outage 18 (Period 2)



# Rock Solid Performance

ASME Section XI Summary Report

Duane Arnold Energy Center

Refueling Outage 18

(Period 2)

### **DUANE ARNOLD ENERGY CENTER**

**UNIT #1 PALO, IOWA** 

Commercial Service Date: February 1, 1975

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION SUMMARY REPORT

May 28, 2001 through April 20, 2003

Dated: April 20, 2003

OWNER:

**ALLIANT ENERGY** 

P.O. Box 351

Cedar Rapids, Iowa 52406

Prepared by:	ASME Section XII Administrator	Date: 7/16/2003
Reviewed by:	Manh E. Dolimen NDE Level III	Date: 7/6-03
Reviewed by:	Scott Preserving Staff	Date: <u>2-16-03</u>
Reviewed by:	Equipment Reliability Supervisor	Date: 7-/6-03
Concurred by:	Ken J. Scheer L.	Date: 7-17-03

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

(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 1 4. Owner Certificate of Authorization (if required)	N/A
5. Commercial Service Date <u>02/01/75</u> 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 (PP1-2), Part G (PP1-68), Part H (P1), Part I (PP1-14),	
Part J (PP1-4), and Part K (P1).	•

Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Chicago Bridge & Iron	3-4833	N/A	3663
B, Pages 1-2, of thi	s report for a contin	nuation of compone	nts examined
	or Installer Chicago Bridge & Iron	Manufacturer or Installer Serial No.  Chicago Bridge & Iron	Manufacturer or Installer State or Province No.  Chicago Bridge

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.

(12/82) This form (E00029) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y 10010

Part A, Page 2 of 2

## FORM NIS-1 (back)

8. Examination Dates <u>5/28/01</u> to <u>4/20/03</u> 9. Inspection Interval from <u>11/01/96</u> to <u>11/01/05</u>

10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval.
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 correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.
Date July 17 2003
Signed Glan Curtlend - By Dean Curtlend - Engineering Director
Certificate of Authorization No. (if applicable) Expiration Date
CERTIFICATE OF INSERVICE INSPECTION
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of <u>Iowa</u> and employed by <u>HSB CT</u> of <u>Hartford CT</u> have inspected the components described in this Owner's Data Report during the period <u>5/28/01</u> to <u>04/20/03</u> , 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 Data Report in accordance with the requirements of the ASME Code, Section XI.
By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Data Report. Furthermore, neither the Inspector, nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Date 7-17 2003.
Commissions NB 19399A, 1496 IA
Inspector's Signature National Board, State, Province and No.

<sup>\*</sup> Note - Other owners are Central Iowa Power Cooperative and Corn Belt Power Cooperative.

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

May 28, 2001 through April 20, 2003

Part B, page 1 of 2

1) Owners: Interstate Power and Light Company,

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: 614 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

#### THIRD TEN YEAR INTERVAL **INSERVICE INSPECTION REPORT**

May 28, 2001 through April 20, 2003

Part B, page 2 of 2

Owners: Interstate Power and Light Company, an Alliant Company P.O. Box 351 Cedar Rapids, IA. 52406

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Iso No

2.2-44/-46

Humbolt, IA.

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

3) Plant Unit: #1

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

Component

**High Pressure Coolant Injection** 

5) Commercial Service Date: 02/01/75

National Board Number of Unit: N/A

Gross Generating Capacity: 614 MWE

#### CERTIFICATE OF INSERVICE INSPECTION

#### COMPONENTS EXAMINED:

CLASS 1	
Component	Iso No
Main Steam	1.2-01/-02/-03
Feedwater	1.2-05/-06
Core Spray	1.2-07
High Pressure Coolant Injection	1.2-09
Recirculation Pump 'A' Suction	1.2-19A
Recirculation Manifold 'A' and Risers E,F,G,H	1.2-20
Recirculation Manifold 'B' and Risers A,B,C,D	1.2-22
IVVI	
Component	Iso No
NO IVVI EXAMINATIONS WERE PERFORMED DUPERIOD FOR THIS CYCLE.	IRING THE SECOND

CLASS 2

Part C, page 1 of 1

 Owners: Interstate Power and Light Company, an Alliant Company

P.O. Der 261 Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

P.O. Box 351 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

Gross Generating Capacity: 614 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 28, 2001 through April 20, 2003. The specific details and associated records of the examinations are on file at Duane Arnold Energy Center.

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# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

May 28, 2001 through April 20, 2003

Part D, page 1 of 2

1) Owners: Interstate Power and Light Company,

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: 614 MWE

#### COMPONENT AND WELD EXAMINATION IDENTIFICATION RECORDS

CLASS 1						
		ISI			ASME XI	
Component	Description	Report	Examination	ISI Iso	Category	Results
Main Steam	MSA-J032	I03014	UT	1.2-01	R-I*	Accepted
	MSA-J033	<b>I</b> 03015	UT	1.2-01	R-I*	Accepted
	MSA-J034	I03016	UT	1.2-01	R-I*	Accepted
	MSB-J010	103023	UT	1.2-02	R-I*	Accepted
	MSB-J011	103044	UT	1.2-02	R-I*	Accepted
·	MSC-J010	103050	UT	1.2-03	R-I*	Accepted
Feedwater	FWA-J014	EC03080	UT	1.2-05	R-I*	Accepted
	FWB-J014	EC03014	UT	1.2-05	R-I*	Accepted
	FWB-J015	EC03014	UT	1.2-05	R-I*	Accepted
	FWC-J030	I03013 &	UT	1.2-06	R-I*	Accepted
		EC03079			•	•
	FWC-J034A	EC03081	UT ·	1.2-06	R-I*	Accepted
•		& I03012				•
Core Spray	CSA-J003	103017	UT	1.2-07	R-I*	Accepted
High Pressure	PSA-J006	I03019	UT	1.2-09	R-I*	Accepted
Coolant Injection						<u>.</u>
Recirculation	RCA-J004	I03053	UT	1.2-19A	R-I*	Accepted
Pump 'A' Suction		-				•
•	RCA-J005	I03054	UT	1.2-19A	R-I*	Accepted
Recirculation	RMA-J001	I03041	UT	1.2-20	R-I*	Accepted
Manifold 'A' and	•					
Risers E,F,G,H						
-, ,	RRE-J005	103043	UT	1.2-20	R-I*	Accepted
	RRF-J005	103059	UT	1.2-20	R-I*	Accepted
	RRG-J005	103058	UT	1.2-20	R-I*	Accepted
	RRG-J007	103045	UT	1.2-20	R-I*	Accepted
Recirculation	RRC-J004A	103057	UT	1.2-22	R-I*	Accepted
Manifold 'B' and						
Risers A,B,C,D						

<sup>\*</sup> Risk-Informed process was used.

#### CLASS 1 PRESSURE TESTS

NO CLASS 1 PRESSURE TESTS WERE PERFORMED DURING THE SECOND PERIOD FOR THIS CYCLE

#### THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

May 28, 2001 through April 20, 2003

Part D Page 2 of 2

Owners: Interstate Power and Light Company,

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

Corn Belt Power Cooperative

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

National Board Number of Unit: N/A

Gross Generating Capacity: 614 MWE

#### COMPONENT AND WELD EXAMINATION IDENTIFICATION RECORDS

CLASS 2							
ISI ASME XI							
Component	Description	Report	Examination	ISI Iso	Category	Results	
High Pressure Coolant Injection	HPA-CF053	103078	UT	2.2-44	R-I*	Accepted	
<b>.</b>	HPC-CF029	I03082	UT	2.2-46	R-I*	Accepted	

\* Risk-Informed process was used.

CLASS 2 PRESSURE TESTS						
		ISI			ASME XI	
Component	Description	Report	Examination	ISI ISO	Category	Results

THERE WERE NO CLASS 2 PRESSURE TESTS PERFORMED DURING THE SECOND PERIOD FOR THIS CYCLE

IWE COMPONENTS								
		ISI	Exam		ASME XI			
Component	Description	Report	Method	ISI ISO	Category	Results		

THERE WERE NO IWE COMPONENTS EXAMINED DURING THE SECOND PERIOD FOR THIS CYCLE

Part E, page 1 of 1

1) Owners: Interstate Power and Light Company, an Alliant Company

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Humbolt, IA.

P.O. Box 351 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: 614 MWE

ADDITIONAL EXAMINATION IDENTIFICATION RECORDS

_	INDITION IN DIRECTION INDIVIDUAL INCOME.								
I	Class 1								
	Component Examined	Previous ISI Report Number	ISI Report Number	Examination	ASME XI Category	Results			

NO ADDITIONAL EXAMS WERE PERFORMED DURING THE SECOND PERIOD FOR THIS CYCLE

SUCCESSIVE EXAMINATION IDENTIFICATION RECORDS

Class 1							
Component	Previous ISI	ISI Report	Examination	ASME XI	Results		
Examined	Report Number	Number	1	Category			

NO SUCCESSIVE EXAMS WERE PERFORMED DURING THE SECOND PERIOD FOR THIS CYCLE

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# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

May 28, 2001 through April 20, 2003

Part F, page 1 of 2

 Owners: Interstate Power and Light Company, 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: 614 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, 1992 with the 1992 Addenda (Ref. Relief Request NDE-R015 Rev. 1).

NIS-2 NO.	<b>CLASS</b>	COMPONENT	<b>WORK DOCUMENT</b>	<u>DESCRIPTION</u>
18-02-01	MC	Torus Shell	CWO A50471	Removed arc strikes on Torus Shell.
18-02-04	2	MO1933	CWO A57412	Replaced tack weld between disc and disc nut
18-02-06	2	PSV2102	CWO A50455	Replaced with a new relief valve of different design.
18-03-03	2	HBB-023-SS-220	PWO 1119896	Replaced snubber.
18-03-05	1	DLA-002-SS-006	CWO A62304	Replaced snubber.
18-03-07	2	HBB-023-SS-219	PWO 1119897	Replaced snubber.
18-03-08	2	1S220 (10-27)	PWO 1123629	Replaced CRD Accumulator.
18-03-09	2	XS2618A	PWO 1125013	Replaced SBLC Squib Valve.
18-03-10	2	1S220 (22-11)	PWO 1123631	Replaced CRD Accumulator.
18-03-11	2	1S220 (34-11)	PWO 1123638	Replaced CRD Accumulator.
18-03-12	2	1S220 (10-31)	PWO 1123636	Replaced CRD Accumulator.
18-03-13	2	1S220 (10-11)	PWO 1123635	Replaced CRD Accumulator.
18-03-14	2	1S220 (30-19)	PWO 1123637	Replaced CRD Accumulator.
18-03-15	2	1S220 (26-27)	PWO 1123633	Replaced CRD Accumulator.
18-03-16	2	1S220 (06-19)	PWO 1123630	Replaced CRD Accumulator.
18-03-17	2	1S220 (22-23)	PWO 1123632	Replaced CRD Accumulator.
18-03-18	2	1S220 (10-07)	PWO 1123634	Replaced CRD Accumulator.
18-03-20	2	XS2618B	CWO A61392	Replaced SBLC Squib Valve.
18-03-21	1	DLA-2-H-19	MWO 1125194	Removed and reinstalled spring can hanger support.
18-03-22	1	Main Steam piping	CWO A62689	Removed surface defects caused by nearby construction.
18-03-23	1	Recirculation System Piping	CWO A60684	Replaced flange on recirculation piping.
18-03-24	MC	Drywell	MWO 1121803	Installed lifting lugs on Drywell.
18-03-25	2	V25-0001	CWO A62296	Machined back of disc for clearance.
18-03-28	1	MSRV Pilot Valve	PWO 1119843	Replaced s/n 207 with s/n 218.

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

May 28, 2001 through April 20, 2003

Part F, page 2 of 2

Owners: Interstate Power and Light Company, an Alliant Company an Alliant Company Marion, IA.
 P.O. Box 351 Cedar Rapids, IA. 52406
 Plant: Duane Arnold Energy Center, Palo, IA. 52324
 Owners Cooperative Humbolt, IA.
 Humbolt, IA.
 Humbolt, IA.
 Humbolt, IA.
 Humbolt, IA.

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: 614 MWE

#### ABSTRACT OF ASME SECTION XI REPAIRS AND REPLACEMENTS (cont.)

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, 1992 with the 1992 Addenda (Ref. Relief Request NDE-R015 Rev. 1).

NIS-2 NO.	CLASS	COMPONENT	WORK DOCUMENT	DESCRIPTION
18-03-29	1	MSRV Pilot Valve	PWO 1119844	Replaced s/n 201 with s/n 226.
18-03-30	1	MSRV Pilot Valve	PWO 1119845	Replaced s/n 200 with s/n 189.
18-03-31	1	MS Safety Valve	PWO 1119846	Replaced one stud.
18-03-32	1	MSRV Pilot Valve	PWO 1119848	Replaced s/n 176 with s/n 141.
18-03-33	1	MSRV Pilot Valve	PWO 1119849	Replaced s/n 227 with s/n 203.
18-03-34	1	MSRV Pilot Valve	PWO 1119850	Replaced s/n 199 with s/n 202.
18-03-35	1	1P201B Pump Scal	CWO A58727	Replaced pump seal.
18-03-36	1	Rx Head Vent Supports	CWO A57816	Modified pipe supports for operational convenience.
18-03-37	1	V03-0096	CWO A60844	Repaired body-to-bonnet leak

Part G, page 1 of 68

 Owners: Interstate Power and Light Company, 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

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: 614 MWE

Form NIS-2's

Part G, page 2 of 68

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1.	Owners Alliant Energy (IES Utilities)     Name			Date	02/28/	02			
	P. O. Box	351, Cedar Rapi Addr			Sheet	1	_ of	2	·
2.	Plant	Duane Arnold Name	Energy Center	<del></del>	Unit	1			
	3277 DAE	C Road, Palo, L			Barraia O	CWO A		370 -40	·
3.	Address  3. Work Performed by Nuclear Management Co. LLC Name 3277 DAEC Road, Palo, IA 52324				• .		•	ne ne	
4. 5.	(a) Applic	ion of System: able Constructionable Edition of S		ntainment (To E, Section III for Repairs o	19 68		768 Adden	da	Code Case.
6.	Identificati	on of Componer	nts Repaired or Re	placed and Re	placement Cor	mponents		· · · · · · · · · · · · · · · · · · ·	
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.		lentification ler/Equip ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
(Prim	: Shell ary ninment)	Horton Mfg. By Chicago, Bridge & Iron	Contract # 68-2968	N/A	CWO A50471		1971	Repaired	No
						<del></del>			<u> </u>
				·					
7.	Description	n of Work:	Repaired Torus sl	nell area by re	moval of arc s	trikes left by the	rmo-couple v	wire attachmen	<u>.</u>
8.	Tests Cond	fucted:	Hydrostatic		Pneumatic	Non	ninal Operati	ing Pressure	
		Other	Pressu	re <b>N</b> /.	A psi	Test Temp	N/A	°F_	
in ite	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.

### FORM NIS-2 (Back)

9. Remarks:

During an IWE visual examination (P01078) of the torus exterior shell, bay #2, are strikes were noted. Reported are strikes were actually thermo-couple attachment locations. Are strike indications were removed with a flapper wheel. Shell thickness was verified after blend grinding. Ground area also received MT and visually examinations. Thickness checks and examination results were satisfactory.

CERTIFICATE OF COMPLIANCE									
We certify that the statements made in the report are correct and this	Repair								
conforms to the rules of the ASME Code, Section XI.	(repair or replacement)								
Type Code Symbol Stamp None	: 								
	Expiration Date N/A								
Signed Passification GL Equipment Monitoring I Owner or Owner's Designee, Title	Date Arg. 1st 2002								
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 HSB CT									
of Hartford, Conn. have	inspected the components described in this Owner's Report								
during the period 12/17/01 to 08/19 my knowledge and belief, the Owner has performed examinations and accordance with the requirements of the ASME Code, Section XI.	, and state that to the best of 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.									
KKaltman Commissions NB 110	47 A,N,I C, NS 1290 IA								
Inspector's Signature Commissions NB 1/0 National B	loard, State, Province, and Endorsements								
Date <u>Oug 01</u> , 2002									

1.	Owners		y (IES Utilities)		Date	09/10	)/02		
		Name	2						•
	P.O. Box	351, Cedar Rapi			Sheet	1	of	2	
		Addr	ess						
2.	Plant	Duane Arnold	Energy Center		Unit	1			<u></u>
	1 20011	Name		<del></del>	<u> </u>				
	3277 DAE	C Road, Palo, L					A57412		
		Addre	ess		Repair O	rganization to P	. O. No., Job	No., etc.	•
3.	Work Perf	ormed by Nucle:	ar Management Co	LLC	Tyne Co	de Symbol Stam	p Nor	ne :	
J.	WOLK I GLI	Name	at Avidragomont Oc	<u>. 2200</u>		ation No.	Nor		7,48
	3277 DAE	C Road, Palo, L	A 52324		Expiratio	n Date	Nor		,
4.	Identificati	on of System:	MO1933, R	HR Loop "B'	'Torus Spray	Header Isolation	1		
5.	(a) Applic	able Constructio	n Code *AS	ME P&V Dra	ft 19 68	Edition .	Adden	da N/A	Code Case.
			Section XI Utilized				<del></del>	<del></del>	•
6.			nts Repaired or Re	placed and Re	placement Co	mponents			
	* Design S	pecification Be	ch-MRS-M137	<del> </del>		<del></del>	<del></del>		
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National	Other I	dentification	Year Built	Repaired, Replaced, or	ASME Code Stamped
				Board No.	Work Or	der/Equip ID		Replacement	(YES or NO)
	933 RHR	Anchor Valve	0436-24	N/A	CWO A57412	Digusp 20	1971	Repaired	No
	"B" Torus Header					-			
Isolat									
						· · · · · · · · · · · · · · · · · · ·			
	12"						<del>- </del>		
					<u> </u>				
<b> </b>						<del></del>	-		<del> </del>
_				<del> </del>		<del> </del>			
7.	Description	of Work:	Replaced tack we	ld between di	sc and disc nu	t.			
<b>8.</b>	Tests Cond	ncted:	Hydrostatic		Pneumatic	□ Nor	minal Operati	ing Pressure	
				لـــا					لــــا
		Other	Pressu	re <u>N/</u>	A psi	Test Temp	N/A	• F	
			form of lists, sketch tt is included on ea						
	on of this for			-					

(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: Tack weld locking disc nut to disc was removed to perform machine work on valve stem. Disc nut tack weld was replaced using WPS P1-A582-T-416-AT rev. 0. Both weld procedure and Welder were qualified in accordance with ASME, Section IX. Completed weld was visually examined and found free of defects.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the	ne report are correct and this								
conforms to the rules of the ASME Code	e, Section XI.	(repair or replacement)							
Type Code Symbol Stamp	None								
Certificate of Authorization No.	None	Expiration Date N/A							
Signed Scott Result Owner or Owner	GL Equipment Monitoring 's Designee, Title	Date <u>September 10,</u> 2002							
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 HSB CT							
of Hartford, Com		ve inspected the components described in this Owner's Report							
during the period03/05/02		, and state that to the best of							
my knowledge and belief, the Owner has accordance with the requirements of the		nd 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.									
	ommissions <u>NB/10</u>	H7A, N, I, C, NS 1290-IA Board, State, Province, and Endorsements							
Inspector's Signature	National	Board, State, Province, and Endorsements							
Date <u>Sept 10</u>	,2002								

1. Owners Allia	ant Energy (IES Utilities)		Date _	10/14/0	02		
P. O. Box 351, Cc	Name edar Rapids, IA 52406 Address		Sheet	11	_ of	2	<del></del>
2. Plant <u>Duan</u>	e Amold Energy Center Name	<del>.</del>	Unit _	1			······································
3277 DAEC Road	1, Palo, IA 52324 Address	<del></del>	Repair Org	CWO A		No., etc.	
3. Work Performed 1  3277 DAEC Road 4. Identification of S			Symbol Stamp ion No. Date	Non Non	ie ie		
5. (a) Applicable Co	onstruction Code ASN	AE Section III	19 71	Edition S7		đa	Code Case.
	lition of Section XI Utilize Components Repaired or Re						
	me of Manufacturer facturer Serial No.	National Board No.	Other Ide Work Orde		Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
PSV2102 Anders Greenv Crosby	wood		CWO A50455		2001	Replaced	Yes
	· · · · · · · · · · · · · · · · · · ·		·				
		-					
7. Description of Wo	ork: Replaced relief v	alve with a ne	w, more reliable	model.			
8. Tests Conducted:	**Hydrostatic	X	Pneumatic	Nom	inal Operati	ing Pressure	X
•	Other Pressu	re5.2	psi	Test Temp _	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.  *Inservice functional pressure test, temperature is not required.							

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

<sup>\*\*</sup>Subjected to manufacturer's hydro test at 425 Psig.

### FORM NIS-2 (Back)

9. Remarks: Valve was replaced due to a history of unsatisfactory testing performance. Replaced with newer model designed for the service this valve would experience. New valve was built to ASMB Section III 1986 Edition. No Addenda, and was reconciled to original construction code using Bech-MRS -M460 Rev. 2. Inservice functional leak test (P02003) was performed satisfactorily after installation.

CERTIFICATE OF COMPLIANCE										
We certify that the statements made	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)								
Type Code Symbol Stamp	NA									
Certificate of Authorization No.	NA	Expiration Date NA								
Signed Reven for Owner or O	GL Equipment Monitoring wner's Designee, Title	Date November 20, 2002								
		SERVICE INSPECTION								
I, the undersigned, holding a valid of the State or Province of	commission issued by the Nation  Iowa	nal Board of Boiler and Pressure Vessel Inspectors and and employed by HSB CT								
		ave inspected the components described in this Owner's Report								
during the period 2-12-0.		and state that to the best of								
	er has performed examinations	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.										
UR	Commissions MB	12329 ANI 1496 IA								
Inspector's Signature	Nation	al Board, State, Province, and Endorsements								
Date 11-35-07	,2002	·								

1.	Owners	Alliant Energ	y (IES Utilities)		Date	4/16/0	3		
	P. O. Box	351, Cedar Rapi Addr	ds, IA 52406		Sheet	11	of	2	
2.	Plant	Duane Arnold Name	Energy Center		Unit	1			
	3277 DAE	C Road, Palo, L Addr			Repair Orga	PWO 1:		No., etc.	
<ul><li>3.</li><li>4.</li><li>5.</li><li>6.</li></ul>	3277 DAE Identificati (a) Applic (b) Applic Identificati	Name C Road, Palo, Lo ion of System: able Construction able Edition of S	RHR Pump on Code *AN Section XI Utilized ats Repaired or Re	1P-220B Tor SI B31.7 I for Repairs o	Authorization D Expiration D us Suction Line S 19 69 or Replacements 1	Date Hubber (HBB Edition 71 992-A92	Not Not -023-SS-220	ne ne D)	Code Case.
-	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Ident Work Order/		Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
<b>22</b> 0B	Pump 1P- Torus on Line ber	Bergen Paterson.	DA-065 (DAEC assigned)	N/A	PWO 1119896		N/A	Replaced	No
7.	Description	of Work:	Replaced snubber	r DA-066 with	ı rebuilt snubber I	OA-065.			
8.	Tests Cond	lucted:	*Hydrostatic		Pneumatic [	Non	ninal Operati	ng Pressure	
in ite	ems 1 throug op of this for	h 6 on this repor nn.	Pressur form of lists, sketch t is included on ea 2030) may be obtain	nes, or drawin ch sheet, and	gs may be used, p (3) each sheet is n	umbered and	the number	of sheets is reco	orded at

### FORM NIS-2 (Back)

9. Remarks: Snubber DA-066 located at HBB-023-SS-220 showed slight signs of leakage. Although DA-066 passed visual & functional test criteria, a rebuilt snubber (DA-065) was installed. The rebuild of DA-065 required only seals & fluid (no load bearing parts were replaced) A pre-service VT-3 (P03012) was completed following installation.

CERTIFICATE OF COMPLIANCE								
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)							
Type Code Symbol Stamp None	•							
Certificate of Authorization No. None Exp	iration Date N/A							
Certificate of Authorization No. None Expiration Date N/A  Signed holl holl for Sup. Equipment Reliability Date Opril, 16 2003  Owner of Owner's Designee, Title								
CERTIFICATE OF INSERVI	CE INSPECTION							
I, the undersigned, holding a valid commission issued by the National Boa the State or Province of Iowa and	rd of Boiler and Pressure Vessel Inspectors and employed by HSB CT							
of Hartford, Conn. have insp	pected the components described in this Owner's Report							
during the period	bected the components described in this Owner's Report  and state that to the best of							
my knowledge and belief, the Owner has performed examinations and take accordance with the requirements of the ASME Code, Section XI.	en 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 193	29ANI , 1496IA							
Inspector's Signature Commissions National Board	d, State, Province, and Endorsements							

1.	Owners	Alliant Energ	y (IES Utilities)	<del></del>	Date _	4/18/0	3		
	P.O. Box	351, Cedar Rapi Addr	ids, IA 52406		Sheet	1	of	2	· · · · · · · · · · · · · · · · · · ·
2.	Plant	Duane Arnold	Energy Center	<del>,</del>	Unit _	1	<del></del>		
	3277 DAE	C Road, Palo, L Addr			Repair Org	CWO A canization to P.		No., etc.	
<ol> <li>4.</li> <li>5.</li> <li>6.</li> </ol>	3277 DAE Identificati (a) Applic (b) Applic Identificati	Name C Road, Palo, Lo con of System: able Construction able Edition of Son of Componer	Reactor Fee on Code *ASI Section XI Utilized outs Repaired or Re	edwater Inlet l ME, III, NF I for Repairs o	Authorization Expiration Header Snubber 19 74 or Replacements	Date (DLA-002-SS-( Edition <u>W</u> 1992-A92	Not Not	ne ne	Code Case.
	* Design S  Name of Component	pecification Be  Name of  Manufacturer	ch-MRS-M227  Manufacturer Serial No.	National Board No.	Other Ide Work Orde		Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
Inle	ctor dwater t Header bber	Lisega	01615123/061	N/A	CWO A62304 / 1		2001	Replacement	No
		<u> </u>							
7. 8.	Description Tests Cond	•	Replaced snubber		S-006, with new			123/061.	
NO's	TE: Supplements 1 throug	Other nental sheets in f h 6 on this repor		nes, or drawin ch sheet, and	A Psi gs may be used, (3) each sheet is	Test Temp provided (1) siz numbered and	N/A ze is 81/2 in the number	°F . x 11 in., (2) in of sheets is reco	orded at

### FORM NIS-2 (Back)

9. Remarks: Original snubber, S/N 97614263/08, developed fluid leak from loose fluid site-glass. Installed new Lisega snubber, S/N 01615123/061, at location DLA-002-SS-006. Installed snubber was subjected to a functional test prior to installation and a pre-service VT-3 (P03041) following installation.

CERTIFICATE OF COMPLIANCE									
We certify that the statements made in the	ne report are correct and this								
conforms to the rules of the ASME Code	e, Section XI.	(repair or rep	nacement)						
Type Code Symbol Stamp	None								
Certificate of Authorization No.	None	Expiration Date	N/A						
Signed Scott Snesder for Owner of Owner	Sup. Equipment Reliability 's Designee, Title	Date April	2/, 2003						
	CERTIFICATE OF INSI	ERVICE INSPECTI	ON						
I, the undersigned, holding a valid community the State or Province of	ission issued by the Nationa Iowa	al Board of Boiler and and employed by	<u>-</u>						
of Hartford, Com			onents described in this Owner's Report						
during the period 4-6-03	to 4-	22.03	, and state that to the best of						
my knowledge and belief, the Owner has accordance with the requirements of the	_	d taken corrective me	easures 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.									
JP 0	ommissions VB	12329A~=,	1496 IN						
Inspector's Signature	National	Board, State, Province	1496 Independents						
Date <u>4- 22</u>	, 2003								

1.	Owners	Alliant Energ	y (IES Utilities)	<del></del>	Date 4/19/	03				
	P. O. Box	351, Cedar Rapi Addr			Sheet 1	of	2			
2.	Plant	Duane Arnold Name	Energy Center	····	Unit 1		<del></del>	·		
	3277 DAE	C Road, Palo, L	A 52324	:	PWO 1	110207				
	<u> </u>	Addr		<del></del>	Repair Organization to P. O. No., Job No., etc.					
3.	Work Perf	ormed by Nucle	ar Management Co	. LLC	Type Code Symbol Stam	p Nor	ne .			
		Name			Authorization No.	Non	1e			
		C Road, Palo, L			Expiration Date	Non				
4.		ion of System:			Torus Suction Line Snubber (H					
5.		able Construction		SI B31.7		1 Adder	nda <u>N/A</u>	Code Case.		
					or Replacements 1992-A92					
6.				placed and Re	placement Components					
	* Design 5	pecification Be	CU-MK2-119	<del></del> _	T	1	<del>1</del>	ASME		
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification  Work Order / Equip ID	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or NO)		
<b>22</b> 0B	Pump 1P- /D Torus on Line ber	Bergen Paterson.	DA-033 (DAEC assigned)	N/A	PWO 1119897 / HBB-023-SS-219	N/A	Replacement	No		
	ja, af	v 9- ,								
	• .			<b>!</b>		<del></del>	<u> </u>			
<del></del>	- <del></del>			<del></del>		<del></del>				
	-									
				<u> </u>		<del>- </del>				
7.	Description	of Work:	Replaced snubber	DA-359 with	n rebuilt snubber DA-033.					
8.	Tests Conducted: *Hydrostatic				Pneumatic Nominal Operating Pressure					
in its	ems 1 throug op of this for	h 6 on this repor rm.	form of lists, sketch tt is included on ea	nes, or drawin ch sheet, and	Psi Test Temp gs may be used, provided (1) s (3) each sheet is numbered and Order Dept., ASME, 345 E. 4	i the number	of sheets is reco	orded at		

### FORM NIS-2 (Back)

9. Remarks: Snubber DA-359 located at HBB-023-SS-219 failed as-found functional test criteria. A rebuilt snubber (DA-033) was installed. The rebuild of DA-033 required only seals & fluid (no load bearing parts were replaced) A pre-service VT-3 (P03013) was completed following installation.

CERTIFICATE OF COMPLIANCE								
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) -							
Type Code Symbol Stamp None								
Certificate of Authorization No. None Exp	iration Date N/A							
Certificate of Authorization No. None Exp Signed Scott Speller for Sup. Equipment Reliability Owner or Owner's Designee, Title	a <u>April 19,</u> 2003							
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 and employed byHSB CT								
of Hartford, Conn. have ins	pected the components described in this Owner's Report							
during the period 11-5-62 to 4-31-63	, and state that to the best of							
during the period //-5-62 to 4-31-63, 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.								
Ji Commissions NB 12	1220 Aut 1496 Ju							
Inspector's Signature National Boar	d, State, Province, and Endorsements							
Date								

1.	Owners	Alliant Energ	y (IES Utilities)	<del></del> -	Date 4/23/2003						
	P.O. Box	351, Cedar Rapi Addr			Sh	eet	1	_ of	2		
2.	Plant	Duane Arnold Name	Energy Center		Un	it	1	<del>-</del> .	<del></del>		
	3277 DA	EC Road, Palo, L Addr		<del></del>	PWO 1123629  Repair Organization to P. O. No., Job No., etc.						
3.	3277 DAI	Name EC Road, Palo, L			Type Code Symbol Stamp Authorization No. Expiration Date None						
4. 5. 6.	(a) Appli (b) Appli				19 or Replac	68 Ed		· Adden	da.	Code Case	
	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Box		Other Iden		Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)	
CR Acc	D cumulator	General Electric	S/N C0004	NA		18220 (10-27)		1978	Replacement	YES	
E	4.X	e wa									
7.	Description	on of Work:	CRD Accumulate	or was replace	:d.						
8.	Tests Con	ducted:	Hydrostatic		Pneumat	ic	Non	ainal Operati	ng Pressure	X	
		Other	Pressur	e <u>102</u>	0	psi Test	Temp _	210	<u> • F</u>		

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.

### FORM NIS-2 (Back)

9. Remarks: Replaced accumulator S/N 6576335 with S/N C0004, which is an improved design. Replaced accumulator

Replaced accumulator will not be reused. A VT-2 (ref I03001) was completed and accepted.

CERTIFICATE OF COMPLIANCE									
We certify that the statements made in t	he report are correct and this		replacement (repair or replacement)						
conforms to the rules of the ASME Cod	e, Section XI.		(repair or re	placement)					
Type Code Symbol Stamp	None								
Certificate of Authorization No.	None	•	tion Date	N/A	L				
Signed Fundl Seven for Owner or Owner	TL Equipment Reliability r's Designee, Title	Date	April	28,	2003				
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  Hartford, Con	n. hav		aployed by		ad in this Owner's Pencet				
during the period 3-10-03 to 4-38-03, 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.									
J2 0	Commissions VB	1232	9ANI	1490	o IA				
Inspector's Signature	National	Board,	State, Provin	/ 4 90 nce, and Endors	ements				
Date <u>4-98</u>	, 2003								

1.	Owners		y (IES Utilities)		Date	04/28/	03		<del></del> _		
	P. O. Box	Nama 351, Cedar Rapi Addr	ds, IA 52406		Sheet	1	_ of	2	<del></del>		
2.	Plant	Duane Arnold Name	Energy Center		Unit	1					
•	3277 DAEC Road, Palo, IA 52324 Address				PWO 1125013  Repair Organization to P. O. No., Job No., etc.						
<ol> <li>3.</li> <li>4.</li> </ol>	Work Performed by Nuclear Management Co. LLC  Name  3277 DAEC Road, Palo, IA 52324  Identification of System: Stand-by Liquid Control Sys					Type Code Symbol Stamp Authorization No. Expiration Date None					
<ul><li>5.</li><li>6.</li></ul>	. (a) Applicable Construction Code ASME, Section III 19 77 Edition S77 Addenda N/A Code Case.  (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1992-A92										
Name of Name of Component Manufacturer		Manufacturer Serial No.	National Board No.		dentification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)			
SBLC	Squib Valve	IST Conax Nuclear	1529	N/A	PWO 1125013 / XS2618A		2003	Replaced	No		
				,							
		÷									
	<u> </u>							<del></del>			
	•								·		
7.	7. Description of Work: Installed Explosive actuated kit assembly.										
8.	B. Tests Conducted: Hydrostatic Pr					Nom Nom	inal Operati	ing Pressure	X		
		Other	Pressur	re <u>124</u>	psi	Test Temp _	N/A	• F			
			form of lists, sketch t is included on ea								

(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.

9. Remarks: Following actuation test of Squib valve XS2618A, a new replacement valve kit was installed. The kit included trigger assembly, primer chamber, and inlet fitting. Installed kit was pressure tested on STP 3.1.7-02 (P03033).

	CERTIFICATE OF COM	WIFLIANCE
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	
Certificate of Authorization No.	None	Expiration Date N/A
Signed Lines of Owner or o	GL Equipment Monitoring wner's Designee, Title	Date May ( ) 2003
I, the undersigned, holding a valid of the State or Province of	CERTIFICATE OF INSI commission issued by the Nationa Lowa	SERVICE INSPECTION  nal Board of Boiler and Pressure Vessel Inspectors and and employed by HSB CT
of Hartford,	Conn. hav	we inspected the components described in this Owner's Report
during the period $3-26-03$		, and state that to the best of
my knowledge and belief, the Owne accordance with the requirements of		nd taken corrective measures described in this Owner's Report in
examinations and corrective measure	es described in this Owner's Rep	akes any warranty, expressed or implied, concerning the port. Furthermore, neither the Inspector nor his employer shall be a loss of any kind arising from or connected with this inspection.
JP	Commissions NB	12229ANI 1496 ID
Inspector's Signature	National	13399ANI 1496 IN al Board, State, Province, and Endorsements
Date <u>5-2-03</u>	, 2003	

1.	Owners	Alliant Energy	y (IES Utilities)	<del></del>	Date	4/27/2	4/27/2003			
	P. O. Box	351, Cedar Rap	ids, IA 52406	<u>,</u>	Sheet	1	of	2		
2.	Plant		Energy Center		Unit	1				
	3277 DA	EC Road, Palo, I Addr		<del> </del>	Repair Or	PWO 1		No., etc.		
3. 4.	3277 DA	formed by <u>Nucle</u> Name EC Road, Palo, L tion of System:		o. LLC  d Drive Accumu	Authoriza Expiration	n Date	Non Non	ne		
5. 6.	(a) Appli (b) Appli	cable Construction of		/IE VIII d for Repairs or l	19 <u>68</u> Replacement	Edition s <u>1992-A92</u>	Adder	nda	Code Case	
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board		er Identification	Year Built	Repaired, Replaced, er Replacement	ASME Code Stamped (YES or NO)	
Accu	mulator	General Electric	S/N H2940	N/A	1S220	(22-11)	1980	Replacement	YES	
$\overline{\subseteq}$		:								
7.		on of Work:	CRD Accumulat							
8.	Tests Cor	ouctea: Other	Hydrostatic Pressur	<b>.</b>	eumaticpsi	Test Temp	inal Operati	or F	<u>x</u>	

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:	Replaced accumulator S/N 65	76410 with spare S/N	H2940, which is a	n improved design.
	Replaced accumulator will no	t be reused. A VT-2	ref 103001) was co	ompleted and accepted.
		<del></del>		
			•	
·				
	CERTIF	ICATE OF COMPL	IANCE	
				-
We certify that the	e statements made in the report ar	e correct and this	replace	
			(repair or replac	ement)
conforms to the ru	tles of the ASME Code, Section 2	I.		-
_	•			
Type Code Symbo	ol Stamp None			
Certificate of Aut	norization No.	one Exp	piration Date	N/A
0			^ \ - 6	
Signed 45400	Owner or Owner's Designe	nent Reliability Dat	= Hone 28	2003
•	Owner or Owner's Designe	, Title		
	CERTIF	CATE OF INSERV	ICE INSPECTION	N
				•
L the undersigned	, holding a valid commission issu	ed by the National Bo	ard of Boiler and Pr	ressure Vessel Inspectors and
the State or Provin			employed by	
of	Hartford, Conn.			ents described in this Owner's Report
	<del></del>			
my knowledge and	helief the Owner has performer	examinations and tal	en corrective meas	, and state that to the best of ures described in this Owner's Report in
	ne requirements of the ASME Co		VII VVII VVII V	mos dosanova m and o made o amport
200010000000000000000000000000000000000	io avquironis ve me	10, 500404.211.		
Ry signing this ce	rtificate neither the Inspector nor	his employer makes a	ov warranty, expres	sed or implied concerning the
				er the Inspector nor his employer shall be
				from or connected with this inspection.
	or tor any horonous many as keen	Mt, ama-6	VI may	MOIN OF TOURSELF THE SELF THE PERSON
12	Commission	s NA 123	39A	1496 IN
Inspector	's Signature	National Boa	rd. State, Province.	1496 In and Endorsements

Date <u>4-28</u>

\_\_\_\_\_\_ , 2003 \_\_\_

1.	Owners	Alliant Energ	y (IES Utilities)		Date 4/28/2003					
		Nam	e			,				
	P. O. Box	351, Cedar Rap		<del></del>	Sh	cet	1	of	2	
		Addı	ress							
2.	Plant	Duane Arnold	Energy Center		Un	<b>.i</b> t	1	:		
		Nam	<b>5</b>							
	3277 DA	EC Road, Palo, L	A 52324				PWO 1	123638		
		Addr	ess	<del>-</del>	Re	pair Organ	ization to P.	O. No., Job	No., etc.	
3.	Work Per	formed by <u>Nucle</u>	ar Management C	o. LLC	Ту	pe Code Sy	ymbol Stam	p <b>No</b> r	ne :	
		Name			Au	thorization	No.	Non	ne	
	3277 DAI	EC Road, Palo, L				piration Da	ate	Nor	ie	· · · · · · · · · · · · · · · · · · ·
4.		tion of System:		d Drive Accur				·		
5.		cable Construction		Æ VIII	19		Edition	Adder	da	Code Case
			Section XI Utilize							
6.	Identifica	tion of Compone	nts Repaired or Re	placed and Re	placeme	nt Compo	nents			
	Name of ······ omponent	Name of Manufacturer	Manufacturer Serial No.	National Box	ard No.	Other Id	lentification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
CRD	mulator	General Electric	S/N C0040	N/A		1S220 (34-	11)	1978	Replacement	YES
	; .	··. ·		<u> </u>						
					·					
				-						
<u> </u>			A.,	<u></u>	•		<del>/</del>	<u></u>		
<b>7.</b> .	Description	on of Work:	CRD Accumulate	or was replace	<u>.d.</u>	<del></del>		-		
8.	Tests Con	ducted:	Hydrostatic		Pneumat	ic [	Non	ninal Operati	ng Pressure	X
		Other	r Pressur	e 102	0	psi Te	st Temp	210	•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:	Replaced accum	nulator S/N 6576404 with spar	e S/N C0040, which is	s an improved design.
		Replaced accum	mlator will not be reused. A	VT-2 (ref 103001) was	s completed and accepted,
				•	
			CERTIFICATE OF CO	MPLIANCE	•
We ce	rtify that the	statements made in	a the report are correct and thi	s repl	acement
	•		-	(repair or rep	
confor	ms to the rule	es of the ASME Co	xde, Section XI.		
Type (	Code Symbol	Stamp	None		
-JPC	•	-			· · · · · · · · · · · · · · · · · · ·
Certifi	cate of Autho	rization No.	None	Expiration Date	N/A
Siamai	· Por	ser la	None TL Equipment Reliability ner's Designee, Title	Day 10 '0	· 28, 2003
Signed	1 1	Owner of Own	ner's Designee, Title	_ Date _~\/mr	2003
		O 11100 OI O 111	MI & DOUISHOO, I IIIV		
	<u></u>				
			CERTIFICATE OF INS	ERVICE INSPECTI	ON
I, the u	mdersigned, l	olding a valid con	nmission issued by the Natior	al Board of Boiler and	l Pressure Vessel Inspectors and
	te or Provinc	e of	Iowa	and employed by	HSB CT
of _		Hartford, Co	onn. ha	ve inspected the comp	onents described in this Owner's Report
during	the period	3-10-03	to <u></u>	<del>29.</del> 03	, and state that to the best of easures described in this Owner's Report in
			has performed examinations a he ASME Code, Section XI.	nd taken corrective me	easures described in this Owner's Report in
accord	Wite Mini me	redementions of a	ie admie code, decimi al.		
					ressed or implied, concerning the
					ither the Inspector nor his employer shall be
liable 1	n any manne	for any personal i	njury or property damage or a	ı loss of any kind arisi:	ng from or connected with this inspection.
7	P		Commissions NB	12222ANE	. 1496 In
	Inspector's	Signature	Nationa	l Board, State, Province	ce, and Endorsements

Date <u>4- 29</u>, 2003

1.	Owners	Alliant Energ	y (IES Utilities)		Date 4/28/2003					
		Name P. O. Box 351, Cedar Rapids, IA 52406								
	P. O. Box	: 351. Cedar Ran	ids. IA 52406		Sh	cet	1	of	2	
		Addı						— <b>*</b> —		
•	7014	D 4	P			•.	4			
2.	Plant	Name Amoio	Energy Center	<del></del>	Ur	<u> </u>	1			<del></del>
			-							
	3277 DA	EC Road, Palo, I					PWO 1			
		Addr	ess		Re	pair Orga	anization to P.	O. No., Job	No., etc.	
3.	Work Per	formed by Nucle	ar Management C	o. LLC	Tv	ne Code	Symbol Stam	No.	ne ·	
••		Name			•	thorization		Noz		<del></del>
	3277 DA	EC Road, Palo, L	A 52324	Ex	piration l	Date	Not	ne		
4.		tion of System:		d Drive Accı				•		
<b>5</b> .		cable Construction	on Code ASM	Æ VIII	19	68	Edition	Adder	ıda	Code Case
	(b) Appli	cable Edition of	Section XI Utilize	d for Repairs	or Repla	cements	1992-A92			-
6.	Identifica	tion of Compone	nts Repaired or Re	placed and R	Replacem	ent Comp	onents			
	Name of omponent	Manufacturer	Manufacturer Serial No.	National Bo	oard No.	Other	Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
CRD	mulator	General Electric	S/N C0070	N/A		1S220 (1	0-31)	1978	Replacement	YES
Accu	mulator			<u> </u>						
		t 15		İ			<del></del>			1
				<u> </u>			·· ·· · · · · · · · · · · · · · · · ·			
			<del> </del>					<u> </u>		
						·			The state of the s	
<b>7.</b>	Description	on of Work:	CRD Accumulate	or was replac	æd.					
8.	Tests Con	ducted:	Hydrostatic		Pneumat	ic [	Nom	inal Operati	ng Pressure	X
Other Pressure				— e 102	20	psi 7	 Γest Temp	210	• <b>F</b>	
		<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 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.

	57 with spare S/N C0070, which is an improved design.
Replaced accumulator will not be	reused. A VT-2 (ref 103001) was completed and accepted.
CERTIFICA	TE OF COMPLIANCE
We certify that the statements made in the report are con	orrect and this replacement
Trouble and the second and the secon	(repair or replacement)
conforms to the rules of the ASME Code, Section XI.	
Mana	
Type Code Symbol Stamp None	
Certificate of Authorization No. None	Expiration Date N/A
Signed Pull Levels TL Equipment Owner or Owner's Designee, Ti	t Reliability Date April 28 2003
THE OUT THE SECRETARY 22	ue , , , , , , , , , , , , , , , , , , ,
CERTIFICA	TE OF INSERVICE INSPECTION
I the undersigned, holding a valid commission issued by	by the National Board of Boiler and Pressure Vessel Inspectors and
the State or Province of Iowa	and employed by HSB CT
of Hartford, Conn.	have inspected the components described in this Owner's Report
during the period $3-13-03$ To	
	aminations and taken corrective measures described in this Owner's Report in
accordance with the requirements of the ASME Code, S	ection XI.
By signing this certificate neither the Inspector nor his e	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
	damage or a loss of any kind arising from or connected with this inspection.
Commissions	NR 12220An = 1401 FA
Inspector's Signature	NB 13399AN I, 1496 IA  National Board, State, Province, and Endorsements

Date

\_\_\_\_ , 2003 \_\_\_

1.	. Owners Alliant Energy (IES Utilities) Name					ite	4/28/2003				
	P. O. Box	: 351, Cedar Rap Addr		· 	Sh	eet	1	of	2		
2.	Plant	Duane Arnold Nam	Energy Center		Uz	it	1				
	3277 DA	EC Road, Palo, L Addr			Re	pair Organizat	PWO 1:		No., etc.		
3. 4.	Name 3277 DAEC Road, Palo, IA 52324 Identification of System: Control Rod Drive A					pe Code Symb thorization No piration Date - Class 2	-	Non Non Non	ıe		
5. 6.	<ul> <li>(a) Applicable Construction Code <u>ASME VIII</u></li> <li>(b) Applicable Edition of Section XI Utilized for Reparent</li> </ul>					_68 Edit	A92	Adden	da	Code Case	
.,]				National E		Other Identi		Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)	
CRD Accu	mulator	General Electric	S/N C0061	N/A		18220 (10-11)		1978	Replacement	YES	
7.	Description	on of Work:	CRD Accumulate	or was repla	ced.						
8.	Tests Con	ducted:	Hydrostatic		Pneumat	ic	Nom	inal Operati	ng Pressure	X	
	Other Pressure 1					psi Test T	emb —	210	•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:		mulator S/N 6576356 with spar		
		Replaced accur	mulator will not be reused. A V	/T-2 (ref 103001) was	s completed and accepted.
	,, <del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>				
			CERTIFICATE OF CO	MPLIANCE	
We cr	ertify that the	statements made	in the report are correct and this	s repl	lacement
ı	•		-	(repair or rep	placement)
confo	rms to the rule	es of the ASME C	Lode, Section XI.	• • =	•
_	• •	·			
Туре	Code Symbol	Stamp	None		
Certif	ficate of Autho	orization No.	None	Expiration Date	N/A
				- •	AWAR
Signe	d Kenel	MDeven f	TL Equipment Reliability wner's Designee, Title	Date Amil	<b>27</b> , 2003
_	<del> </del>	Owner or Ov	vner's Designee, Title		
			CERTIFICATE OF INS	ERVICE INSPECTI	.ON
T the	dereigned '	Lalding a valid oc	issian issued by the Nation	al Daged of Dailer and	d Pressure Vessel Inspectors and
	undersigned, i ate or Provinc		Iowa		HSB CT
of	### Of 110.	Hartford, C			conents described in this Owner's Report
	g the period	3-12-03		4-29-03	
				nd taken corrective m	easures described in this Owner's Report in
			the ASME Code, Section XI.		-
		_			
					pressed or implied, concerning the
					ither the Inspector nor his employer shall be
112016	in any manner	/ for any personal	injury or property damage or a	loss of any kind arish	ing from or connected with this inspection.
	J/~		Commissions 1/3	12329ANI	E 1496 IA
	Inspector's	Signature	Nationa	l Board, State, Province	

Date <u>4-29</u>, 2003

1.	I. Owners Alliant Energy (IES Utilities)  Name				Da	ite	4/28/2	2003		·
	P. O. Box	351, Cedar Rap Addr			Sh	eet	1	of	2	
2.	Plant	Duane Arnold Nam	Energy Center	<del></del>	Ur	nit	1		· · · · · · · · · · · · · · · · · · ·	
	3277 DA	EC Road, Palo, L Addr			Re	pair Organiz	PWO 1 ation to P.		No., etc.	
3. 4.	Name 3277 DAEC Road, Palo, IA 52324 Identification of System: Control Rod Drive Ac					pe Code Syn thorization N piration Date – Class 2	₹o.	Nor Nor	ie	
5. 6.	<ul> <li>(a) Applicable Construction Code ASME VIII</li> <li>(b) Applicable Edition of Section XI Utilized for Repair</li> </ul>				19 or Repla			Adden	da	Code Case
-1	Name of		Manufacturer Serial No.	National Bo		Other Iden	_	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
Accu	mulator	General Electric	S/N H2859	N/A		1S220 (30-19)	)	1980	Replacement	YES
7.	Description	on of Work:	CRD Accumulate	or was replac	ed.					
8.	Tests Con	•	Hydrostatic		Pneumat	tic	Non	ninal Operati	ng Pressure	X
		Other	Pressur	re102	20	psi Test	Temp _	210	<u>•F</u>	

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:	Replaced accumu									
		Replaced accumu	lator will not be r	eused. A V	T-2 (ref	103001) w	as con	npleted ar	nd acce	epted.	
							•				
		-	CERTIFICAT	IE OF CO	MPLIAI	NCE				<u>-</u>	
We cert	ifv that the s	statements made in t	the report are con	rect and this	S.	TC	placem	oent			
	•		-		_	(repair or re					
conform	is to the rule	s of the ASME Cod	le, Section XI.			• -	-	-			
Туре Сс	ode Symbol S	Stamp	None								·.
Certifica	ate of Author	rization No.	None		Expira	ation Date		N/A	1		
Signed	Pouls		TL Equipment		Date	Amil	0 2	8,		2003	
	•	Owner or Owne	er's Designee, Titl	le	,						
<del></del> .				-							
•			CERTIFICAT	E OF INS	ERVICI	E INSPECT	TION				
- 4											
	dersigned, he e or Province	olding a valid com		the Nationa					isel Ins	spectors ar	ıd
of	OF PTOVINCE	Hartford, Cor	Iowa	har		nployed by cted the com		SB CT	-A in	4: Oume	-2a Danost
	he period	3-10-03	To		_	3	_			te that to th	
_		belief, the Owner ha									
		requirements of the									• • • • • • • • • • • • • • • • • • •
	_									_	
		ficate neither the In									
		rective measures d									
iiadie iii	any manuci	for any personal in	Jury or property o	amage or a	1058 OI a	iny king are	sing in	om or cu	Mecie	A WILL HILL	mspection.
<u> つり</u>			Commissions	NB 1	12320	GAN I			196	IA	
	Inspector's	Signature		National	Board,	State, Provi	ince, ar	nd Endor	sement	its	

Date <u>4-79-03</u>, 2003

1. Owners Alliant Energy (IE Name					Da		4/28/2	003		
	P. O. Box	351, Cedar Rap Addr			Sh	eet	1	of	2	
2.	Plant	Duane Arnold Name	Energy Center		Ur	iit	1	·	· · · · · ·	
	3277 DAEC Road, Palo, IA 52324 Address					pair Organizat	PWO 1:		No., etc.	
3. Work Performed by Nuclear Management Co. LI. Name  3277 DAEC Road, Palo, IA 52324  Identification of System: Control Rod Dri					Au Ex	pe Code Symb thorization No piration Date	-	Non Non Non	e	
5.	(b) Applicable Edition of Section XI Utilized for Repair					_68 Edit cements 1992-	A92	Adden	da	Code Case
~-1	6. Identification of Components Repaired Name of Manufacturer Series			National E		Other Identi		Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
CRD Accu	mulator	General Electric	S/N H3159	N/A		18220 (26-27)		1980	Replacement	YES
7.	Description	on of Work:	CRD Accumulate	or was repla	ced.					
8.	Tests Con	ducted:	Hydrostatic		Pneumat	tic 🔲	Nom	inal Operati	ng Pressure	X
		Other	Pressur	e <u>10</u>	020	psi Test T	emp _	210	• 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. Rem	arks:	Replaced accumul	lator S/N 657643	2 with spare	S/N H3159, which is a	n improved design.	
					-2 (ref 103001) was o		ted.
			CERTIFICAT	TE OF COM	PLIANCE		
We certify th	at the s	tatements made in t	he report are con	rect and this	replac	ement	
					(repair or repla		
conforms to t	the rule	s of the ASME Cod	e, Section XI.			•	
Type Code S	ymbol	Stamp	None	<del></del>			,
Certificate of	f Autho	rization No.	None	<del></del> :	Expiration Date	N/A	
Signed &	week	Devela	TL Equipment		Date April	28, 2	003
- 		Owner of Owner	r's Designee, Titl	le	•	•	
<del></del>	-	<del></del>					
!			CERTIFICAT	TE OF INSE	RVICE INSPECTIO	)N	
			-		Board of Boiler and I		ectors and
the State or P	Tovince		Iowa			HSB CT	'- O'- Domand
of during the per	<u></u>	3-10-03	<u>т.</u> То		inspected the comport		-
							is Owner's Report in
		requirements of the			Marii Contocuae mea	saics acserioca-m-m	13 Owner 2 vebor m
	fates were	104442	1101.22 0000, 00	~11/11 2 12.			
					s any warranty, expre		
							his employer shall be
liable in any i	manner	for any personal inj	jury or property d	lamage or a k	oss of any kind arising	g from or connected	with this inspection.
22		. (	Commissions	NB	13329ANE	1496 -	FA
Insp	ector's	Signature		National F	13399ANIE Board, State, Province	and Endorsements	/

Date 4-29

\_\_\_\_\_\_ , 2003 \_\_\_

1.	Owners Alliant Energy (IES Utilities) Name			<del></del>	Da	ite	4/28/2	003	· · · · · · · · · · · · · · · · · · ·	<u> </u>
	P. O. Box	351, Cedar Rap Addr	ids, IA 52406		Sh	eet	. 1	_ of _	2	
2.	Plant	Duane Arnold Name	Energy Center		Un	<b>i</b> t	1	<u></u>	1 . · · · · · · · · · · · · · · · · · ·	
	3277 DA	EC Road, Palo, L Addr			Re	pair Organ	PWO 1:		No etc.	
<b>3.</b>	3277 DAI	formed by <u>Nucle</u> Name EC Road, Palo, L tion of System:		o. LLC	Ty Au Ex	pe Code Sy thorization piration Da	ymbol Stamp 1 No.	-	ne ne	
5. 6.	(a) Appli (b) Appli	cable Construction of		IE VIII I for Repairs (	19 or Replac	68 : cements 19		. Adder	uđa	Code Case
-1	Name of emponent	Name of Manufacturer	Manufacturer Serial No.	National Box			lentification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or
CRD	mulator	General Electric	S/N C0010	N/A		1\$220 (06-	19)	1978	Replacement	YES
		(								
		<u>.</u>				·				
7.	Description	on of Work:	CRD Accumulate	or was replace	;d.					
8.	Tests Con	ducted:	Hydrostatic		Pneumat	ic [	Nom	inal Operati	ng Pressure	X
		Other	Pressur	e <u>102</u>	0	psi Te	est Temp	210	• <b>F</b>	

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

(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.

9.	Remarks:	Replaced accumulate	or S/N 6576362 with span	e S/N C0010, which is	an improved design.
		Replaced accumulate	or will not be reused. A V	/T-2 (ref 103001) was	completed and accepted.
ļ		•	CERTIFICATE OF CO	MPLIANCE	
We ce	rtify that the	statements made in the	report are correct and this	s repla	acement
	<b>,</b>			(repair or rep	
confor	ms to the rule	s of the ASME Code,	Section XI.	(	
Type (	Code Symbol	Stamp	None		
Carrie	cate of Autho	rivation No	None	Evaluation Date	N/A
Cermi	cate of Allux			Expiration Date	
Signed	Lucy	Il dunton I	L Equipment Reliability	Date Done	28, <sub>2003</sub>
2-3-3-	\	Owner of Owner's	Designee, Title		
		•	•		
			CERTIFICATE OF INS	ERVICE INSPECTI	ON
T the v	ndomion ad 1				
		olding a valid commis	sion issued by the Nation	al Board of Boiler and	Pressure Vessel Inspectors and
the Sta	indersigned, l	olding a valid commis	sion issued by the Nation	al Board of Boiler and and employed by	Pressure Vessel Inspectors and HSB CT
the Sta	te or Provinc	olding a valid commis e of Hartford, Conn.	sion issued by the Nation	al Board of Boiler and and employed by we inspected the comp	Pressure Vessel Inspectors and HSB CT onents described in this Owner's Report
the Sta of during	te or Provinc	oolding a valid commise of  Hartford, Conn. 3-10-03	sion issued by the National Iowa have	al Board of Boiler and and employed by we inspected the compo	Pressure Vessel Inspectors and HSB CT onents described in this Owner's Report , and state that to the best of
the Sta of during my kno	the period	e of  Hartford, Conn.  3-10-03  belief, the Owner has p	sion issued by the National Iowa have	al Board of Boiler and and employed by we inspected the compo	Pressure Vessel Inspectors and HSB CT onents described in this Owner's Report
the Sta of during my kno accord	the period owledge and ance with the	Hartford, Conn.  3-10-03  belief, the Owner has prequirements of the Association	ision issued by the Nationa  Iowa  To  Erformed examinations ar  SME Code, Section XI.	al Board of Boiler and and employed by we inspected the composite of the composite of the corrective means and taken corrective m	Pressure Vessel Inspectors and HSB CT onents described in this Owner's Report , and state that to the best of assures described in this Owner's Report in
the Sta of during my kno accord  By sign	the period owledge and ance with the	Hartford, Conn.  3-10-03  belief, the Owner has prequirements of the Afficate neither the Inspec	ision issued by the National Iowa  To  Gerformed examinations are SME Code, Section XI.	al Board of Boiler and and employed by we inspected the composite of the composite of the corrective method taken corrective methods any warranty, expi	Pressure Vessel Inspectors and HSB CT onents described in this Owner's Report , and state that to the best of assures described in this Owner's Report in ressed or implied, concerning the
the Sta of during my kno accord  By sign examin	the period owledge and ance with the ning this certinations and co	Hartford, Conn.  3-10-03  belief, the Owner has prequirements of the Afficate neither the Insper	sion issued by the National Iowa  To  Erformed examinations are SME Code, Section XI.  Sector nor his employer maleribed in this Owner's Rep	al Board of Boiler and and employed by we inspected the composite of taken corrective methods. Furthermore, neithermore, n	Pressure Vessel Inspectors and HSB CT onents described in this Owner's Report, and state that to the best of asures described in this Owner's Report in ressed or implied, concerning the ther the Inspector nor his employer shall be
the Sta of during my kno accord  By sign examin	the period owledge and ance with the ning this certinations and co	Hartford, Conn.  3-10-03  belief, the Owner has prequirements of the Afficate neither the Insper	ribed in this Owner's Rep	al Board of Boiler and and employed by we inspected the composite of the composite of the corrective medical series and warranty, expressort. Furthermore, neighbors of any kind arising the corrective of the corrective of the corrective of the correction of the cor	Pressure Vessel Inspectors and HSB CT onents described in this Owner's Report , and state that to the best of assures described in this Owner's Report in ressed or implied, concerning the ther the Inspector nor his employer shall be ng from or connected with this inspection.
the Sta of during my kno accord  By sign examin	the period owledge and ance with the ning this certinations and co	Hartford, Conn.  3-10-03  belief, the Owner has p requirements of the Airfford for any personal injury	ribed in this Owner's Rep	al Board of Boiler and and employed by we inspected the composite of the composite of the corrective medical series and warranty, expressort. Furthermore, neighbors of any kind arising the corrective of the corrective of the corrective of the correction of the cor	Pressure Vessel Inspectors and HSB CT onents described in this Owner's Report, and state that to the best of asures described in this Owner's Report in ressed or implied, concerning the ther the Inspector nor his employer shall be

Date <u>4-29-63</u>, 2003

1.				Da	Date 4/28/2003					
		Nam	e							
	P. O. Box	c 351, Cedar Rap	ids, IA 52406		Sh	eet	1	of	2	
		Add	ress							
2.	Plant	Duane Arnold	Energy Center		Ur	it	1			
		Nam								
	3277 DA	EC Road, Palo, I	A 52324				PWO 1	123632		
		Add			Re	pair Orga	nization to P.	O. No., Job	No., etc.	
3.	Work Per	formed by Nucle	ar Management C	o. LLC	Ту	pe Code S	Symbol Stamp	Nor	ne ·	
		Name		<del></del>		thorizatio		Nor	ne	
	3277 DA	EC Road, Palo, I	A 52324			piration D		Non		
4.		tion of System:		d Drive Accu				- 102		
5.		icable Construction		Æ VIII	19	68	Edition	Adden	rda	Code Case
٥.			Section XI Utilize						<del></del>	_ Code Case
6.			nts Repaired or Re							
<del>- 0.</del>	Identifica	I	I Repaired of Re	Placed and Re	рыссия	лі Сопр	OHEHIS	I	· · ·	ASME
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Bos	ard No.	Other 1	identification	Year Built	Repaired, Replaced, or Replacement	Code Stamped (YES or
		0-15-1	601 00017	37/4		10000 00		1000		NO)
CRD Accu	mulator	General Electric	S/N C0017	N/A		1S220 (22	(-23)	1978	Replacement	YES
										<b></b>
7.	Description	on of Work:	CRD Accumulate	or was replace	A					
7.	Description	MOI WOLK	CIG Piccumulati	or was reprace	· · · · · · · · · · · · · · · · · · ·		~~			
8.	Tests Cor	iducted:	Hydrostatic		Pneumat	ic [	Nom	inal Operati	ng Pressure	X
		· Other	r Pressur	e 102	0	psi T	est Temp	210	°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. Rema						s an improved design	
	<u>Re</u>	placed accum	nulator will not be n	cused. A VT	-2 (ref 103001) was	s completed and acce	pted.
					•		
			<u> </u>				
			CERTIFICAT	E OF COM	PLIANCE		
We certify the	at the state	ments made i	n the report are corr	ect and this	гері	acement	
	4lea of	'4- 10MC	Sede Cention VI		(repair or rep	olacement)	
COMOTHIS 10 I	ue imes of	me asme c	code, Section XI.				
Type Code Sy	ymbol Star	mp	None				· · · · · · · · · · · · · · · · · · ·
Certificate of	Authoriza	tion No.	None		Expiration Date	N/A	
h	2	$\mathcal{R}_{-}$	ATL Equipment I		1 1	28	
Signed (	usery,	Owner or Ow	ner's Designee, Titl	Reliability i	Date April	20,	2003
						——————————————————————————————————————	
			CERTIFICAT	E OF INSEI	RVICE INSPECTI	ION	
I. the undersis	ened, holdi	ing a valid co	mmission issued by	the National	Board of Boiler and	d Pressure Vessel Ins	epectors and
the State or P			Iowa		and employed by	HSB CT	
of		Hartford, C	Conn. To				this Owner's Report
during the per my knowledge					19-03 taken corrective m		e that to the best of this Owner's Report in
			the ASME Code, Se				
Ry signing thi	is certificat	te neither the	Inspector por his en	mlover make	s any warranty, exn	oressed or implied, co	oncerning the
examinations	and correc	tive measures	s described in this O	wner's Repor	t. Furthermore, ne	ither the Inspector no	or his employer shall be
liable in any r	nanner for	any personal	injury or property d	amage or a lo	ess of any kind arisi	ing from or connected	d with this inspection.
J1-			Commissions	NB	123294NF	1496	IA
Inspe	ector's Sign	nature				ce, and Endorsement	

Date 4-29

\_\_\_\_\_\_ , 2003 \_\_\_\_

1.	Owners		ry (IES Utilities)		Da	ite	4/28/2	2003		
		Nam	i <b>ė</b>							
	P. O. Box	c 351, Cedar Rap			Sh	eet	1	of	2	
	•	Add	ress							
2.	Plant	Duane Arnold	Energy Center		Ur	ıit	1			
		Nam	e							
	3277 DA	EC Road, Palo, I	A 52324				PWO 1	123634		
	<u> </u>	Addı	ress		Re	pair Organia	zation to P.	O. No., Job	No., etc.	
3.	Work Per	formed by Nucle	ar Management C	o. LLC	Ту	pe Code Syr	nbol Stam	Not	ne -	
		Name			•	thorization		Not	ne	
	3277 DA	EC Road, Palo, L	A 52324			piration Dat		Nor		
4.		tion of System:	Control Ro	d Drive Ac			_			
5.		icable Construction		Æ VIII	19		dition	Adden	nda	Code Case
٠.			Section XI Utilize							_
6.			nts Repaired or Re							
<del></del>	20011110		1	1	- Atopitooiii		<u> </u>			ASME
_	Name of	Name of	Manufacturer			]		Year Built	Repaired,	Code
C	mponent	Manufacturer	Serial No.	National	Board No.	Other Ide	ntification		Replaced, or Replacement	Stamped (YES or
		1							Replacement	NO)
CRD		General Electric	S/N C0031	N/A		1S220 (10-07	7)	1978	Replacement	YES
Accu	mulator		<u> </u>	<del> </del>						
				<del>                                     </del>				1		
		. 3 *								
		2								
				ļ				1	<u> </u>	
		<u> </u>	1	<u> </u>				<u> </u>	<u> </u>	<u> </u>
7.	Description	on of Work:	CRD Accumulate	or was repl	aced.					·
	<b>m</b> . 0	9 4 - 9	** 1 4.*				1			[ <del>[</del> ]
8.	Tests Con	kauciea:	Hydrostatic		Pneumat	nc	l von	ninal Operati	ng Pressure	X
		Other	r Pressur	re1	1020	psi Tes	t Temp	210	°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:		ulator S/N 6576340 w			
		Replaced accumu	dator will not be reus	ed. A VT	-2 (ref 103001) was	completed and accepted.
				<del></del>		
			CERTIFICATE (	OF COM	PLIANCE	
We certi	ify that the s	tatements made in	the report are correct	t and this	repla	cement
	·		-		(repair or repla	
conform	s to the rule	es of the ASME Cod	ie, Section XI.			
Туре Со	ode Symbol :	Stamp	None			
Certifica	ate of Author		None		Expiration Date	N/A
Signed	Remod	Franko	TL Equipment Reli	liability	Date Amil	<b>27</b> . 2003
D-6	** - <u></u>	Owner or Own	er's Designee, Title	<u></u>		
	<del></del>			· ·		
				-	<del></del>	
 			CERTIFICATE (	OF INSE	RVICE INSPECTIO	М
I. the unc	dersigned. I	iolding a valid com	mission issued by the	e National	Board of Boiler and	Pressure Vessel Inspectors and
•	e or Province	e of	Iowa		and employed by	HSB CT
of	<del></del>	Hartford, Con				onents described in this Owner's Report
	he period	3-12-63	To			, and state that to the best of
			as performed examina le ASME Code, Sectio		, taken corrective mea	asures described in this Owner's Report in
accordan	ice will use	requirements of the	ADME Cour, Decido	M AI.		
						essed or implied, concerning the
						ther the Inspector nor his employer shall be
liable in	any manner	for any personal in	ijury or property dam	age or a k	oss of any kind arising	g from or connected with this inspection.
S	<b>-</b>		Commissions	NΩ	5 12329AN=	E, 1496 Eg
	Inspector's	Signature	7	National 7	Board, State, Province	e. and Endorsements

Date 4-29

\_\_\_\_\_\_ , 2003 \_\_\_\_

1.	Owners	Alliant Energ	y (IES Utilities)		Date	04/	/28/03		
		Name							
	P. O. Box	351, Cedar Rapi	ids. IA 52406		Sheet	1	of	2.	
		Addr		<del></del>		<del></del>	<del></del>		
2	Plant	Duana Amald	Energy Center		Unit	1			
2.	Plain	Name Arnoid			Omi				
•								•	
	3277 DAE	C Road, Palo, L		<del></del>			O A61392		
		Addr	ess		Repair O	rganization to	P. O. No., Job	No., etc.	
3.	Work Perf	ormed by Nucle	ar Management C	o. LLC	Type Co	de Symbol St	amp Noi	ne ·	
		Name	_	<del></del>		ation No.	Not	ne ·	
_		C Road, Palo, L			Expiratio	on Date	Non	ne	
4.		ion of System:		iquid Control					
5.		able Construction		IE, Section II			S77 Adder	ida N/A	Code Case.
6.			Section XI Utilized or Repaired or Re						
<u> </u>	- Adoli Moud	l compone	LIS ACPUNCA OF IC	)	T TO THE TO	прополь		<u> </u>	ASME
	Name of ·	Name of Manufacturer	Manufacturer Serial No.	National	041	1	Year Built	Repaired,	Code
	omponent	Manufacturer	Seriai No.	Board No.	Other Is	dentification		Replaced, or Replacement	Stamped (YES or
						der / Equip ID			NO)
SBU	C Squib Valve	IST Conax Nulcear	1530	NA	CWO A61392	/ XS2618B	2003	Replaced	No
				<u> </u>					
_	:		·	<del> </del>	<del> </del>				
				<del>  :</del>		<del></del>			
-	<b>75 </b>	6777 1	T 4. 11. 4 T 1 1				•		•
7.	Description	n or work:	Installed Explosi	ve actuated kr	t assembly.				
8.	Tests Cond	lucted:	Hydrostatic		Pneumatic		Nominal Operati	ing Pressure	X
		Other	Pressu	re <u>12</u> 4	10 psi	Test Temp	N/A	°F	
NO	TE: Supplen	ental sheets in f	orm of lists, sketcl	hes, or drawin	gs may be use	d, provided (1	) size is 81/2 in	. x 11 in., (2) in	formation

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: Following actuation test of Squib valve XS2618B, a new replacement valve kit was installed. The kit included trigger assembly, primer chamber, and inlet fitting. Installed kit was pressure tested on STP 3.1.7-02 (P03034),

	CERTIFICATE OF COM	AFLIANCE	
We certify that the statements made in	the report are correct and this		
conforms to the rules of the ASME Co	de, Section XI.	(repair or repla	cement)
Type Code Symbol Stamp	None		
Certificate of Authorization No.	None	Expiration Date	N/A
Signed Prince Seven for Own	GL Equipment Monitoring er's Designee, Title	Date April	2003
	CERTIFICATE OF INSI	ERVICE INSPECTIO	N
I, the undersigned, holding a valid com the State or Province of	mission issued by the Nationa Iowa	l Board of Boiler and P and employed by	
of Hartford, Co	nn. hav		nents described in this Owner's Report
during the period 3-26-03	to 5-2	1-03	, and state that to the best of
my knowledge and belief, the Owner h	as performed examinations an	d taken corrective meas	sures described in this Owner's Report in
accordance with the requirements of the	e ASME Code, Section XI.		-
	described in this Owner's Rep	ort. Furthermore, neith	ssed or implied, concerning the er the Inspector nor his employer shall be from or connected with this inspection.
112	Commissions NB	12329ANT 14	91. FA
Inspector's Signature	National	10379ANE, 14 Board, State, Province,	, and Endorsements
Date 5-2-03	_ ,2003		

1.	Owners	Alliant Energ	y (IES Utilities)		Date	05/1/0	03		
	P.O. Box	351, Cedar Rapi Addr	ds, IA 52406		Sheet	1	of	2	
2.	Plant	Duane Arnold Name	Energy Center		Unit	1	<del></del>		<del> </del>
	3277 DAE	C Road, Palo, L Addr			Repair Or	MWO rganization to P.	1125194 O. No., Job	No., etc.	
3.	3277 DAE	Name C Road, Palo, L		o. LLC	Type Cod Authoriza Expiration		Nor	ne	
4. 5. 6.	(a) Applic (b) Applic		Feedwater on Code ANS Section XI Utilized onts Repaired or Re			s 1992 <u>-A92</u>	VA Adden	ida N/A	Code Case.
-	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.		lentification ler/Equip ID	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
	004 operator g can support	NA	N/A	NA	MWO 1125194		N/A	Repaired	No
	t plate for	Tuscaloosa Steel	Heat # A7X3024	N/A	MWO 1125194	/DLA-2-H-19	1998	Replaced	No
	Plate for 🧢	Tuscaloosa Steel	Heat # A7X3024	N/A	MWO 1125194	/DLA-2-H-19	1998	Replaced	No
					<u> </u>		<del> </del>		
			·						
7.	Description	of Work:	Removed and rei	nstalled sprin	g can support to	allow installati	on of equipm	nent	
8.	Tests Cond	lucted:	Hydrostatic		Pneumatic	Nor	ninal Operati	ing Pressure	
		Other	Pressu	re N/	A Psi	Test Temp	N/A	° F	
			form of lists, sketch						

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:	In order to replace a drywell cooler removal the base plate and gusset p	late were damaged		
	VT-3(P03043) was performed on fl	he assembly.		
	CERTIFICAT	E OF COMPLIA	NCE	
We certify that the	statements made in the report are corr	rect and this	Replacement	
			(repair or replacemen	t)
conforms to the rule	es of the ASME Code, Section XI.			
Type Code Symbol	Stamp None			
Certificate of Author	prization No. None	Ехріг	ation Date	N/A
Signed Pusse	Owner or Owner's Designee, Titl	Monitoring Date	may 1,	2003
	CERTIFICAT	E OF INSERVIC	E INSPECTION	
I, the undersigned, I the State or Province	holding a valid commission issued by		d of Boiler and Pressur	
of	Hartford, Conn.	have inspe	ected the components d	escribed in this Owner's Report
	4-03-03 to belief, the Owner has performed exan exequirements of the ASME Code, Se	ninations and taker	a corrective measures d	_ , and state that to the best of escribed in this Owner's Report in
examinations and co	ificate neither the Inspector nor his en orrective measures described in this O or for any personal injury or property d	wner's Report. Fu	orthermore, neither the	Inspector nor his employer shall be
22	Commissions	NB 123	DAANI, 19	196 IA
Inspector's	s Signature	National Board	AGANI, State, Province, and F	indorsements
Date <u>5-61-</u>	<u>03</u> ,2003 _			

1.	Owners		y (IES Utilities)		Date	05/1/	03		<del> </del>
		Name	<b>e</b>						
	P. O. Box	351, Cedar Rapi			Sheet	1	of	2	
		Addr	ess				<del></del>		
2.	Plant	Duane Arnold	Energy Center		Unit	1			
		Name	9					<del></del>	
	3277 DAE	C Road, Palo, L	A 52324			CWO	A62689		
		Addr	ess		Repair Organ	nization to P	. O. No., Job	No., etc.	
3.	Work Perf	ormed by Nuclea	ar Management C	o. LLC	Type Code S	Symbol Stam	p Nor	te .	
		Name			Authorizatio		Nor		
	3277 DAE	C Road, Palo, L	A 52324		Expiration D		Non		· · · · · · · · · · · · · · · · · · ·
4.		ion of System:	Main Stear	n	<b></b>			-	
5.	(a) Applic	able Constructio	on Code ANS	SI B31.1	19 69	Edition N	V/A Adden	da N/A	Code Case
	(b) Applic	able Edition of	Section XI Utilize	d for Repairs	or Replacements 1	992 <u>-A92</u>	<del></del>	•	•
6.	Identificati	on of Componer	nts Repaired or Re	placed and Re	placement Compo	onents			
	Name of	Name of	Manufacturer		İ	•	Year Built	Damalmad	ASME Code
	omponent	Manufacturer	Serial No.	National	Other Ident	ification	rear Dant	Repaired, Replaced, or	Stamped
	-			Board No.				Replacement	(YES or
1" E	hom	N/A	N/A	N/A	Work Order / CWO A62689 / DB		N/A	Repaired	NO) No
	ream of	NA	, IVA	INA	CWO A020097 DB	AUUI	NA.	Repaired	140
CV4	412 (MSIV)								
									ļ
		31.4		<del> </del>				<u> </u>	
	¥			<u> </u>					
		····		<del> </del>	-				
			<del></del>	<del> </del>				<u> </u>	<del></del>
<b>7</b> .	Description	of Work:	Removed surface	defects cause	ed by nearby const	ruction.			
_	<b>.</b>		· · ·	<del></del>		<del></del>		_	
8.	Tests Cond	lucted:	Hydrostatic		Pneumatic [	No	minal Operati	ng Pressure	
		Other	Pressu	re N/.	A Psi 7	Test Temp	N/A	°F	
					· · · · · · · · · · · · · · · · · · ·				
			orm of lists, sketci						
			t is included on ea						

the top of this form.

9. Remarks:		rface defects were med	chanically removed	2 (Main Steam Isolation Valve) was  Land a successful surface exam was   nominal well thickness
•				
	CERTIFIC	ATE OF COMPLIA	NCE	
We certify that the s	tatements made in the report are o	correct and this	Repair (repair or replace	
conforms to the rule	s of the ASME Code, Section XI.		(tepair of replace	meany
Type Code Symbol	Stamp None		<del></del>	
Certificate of Author		<del></del>	ation Date	N/A
Signed Russe	of sen- for GL Equipmen	nt Monitoring Date Title	May 2,	2003
	V Owner or Owner's Designee,	little		
	CERTIFIC	ATE OF INSERVIO	E INSPECTION	
	olding a valid commission issued			
the State or Province of	e of Iowa Hartford, Conn.		mployed by H	ats described in this Owner's Report
during the period			23	
				res described in this Owner's Report in
	requirements of the ASME Code,			•
	ficate neither the Inspector nor his			
				the Inspector nor his employer shall be rom or connected with this inspection.
JR	Commissions	NB 1236	) <i>QANI</i> _ , State, Province, a	1496 In
Inspector's	Signature	National Board	, State, Province, a	nd Endorsements

Date 5-2-03

1.	Owners	Alliant Energ	y (IES Utilities)		Date	05/	/1/03		·
	P. O. Box	351, Cedar Rapi Addr		<del></del>	Sheet	1	of	2	<del>, , , , , , , , , , , , , , , , , , , </del>
2.	Plant	Duane Arnold Name	Energy Center		Unit	1			
	3277 DAE	C Road, Palo, L Addr		· · · · · · · · · · · · · · · · · · ·	Repair O		O A60684 P. O. No., Job	No., etc.	
<ol> <li>3.</li> <li>4.</li> </ol>	3277 DAE	ormed by <u>Nuclea</u> Name C Road, Palo, Laion of System:	ar Management Co A 52324 Main Steam			de Symbol Sta ation No. on Date	Nor Nor	ne	
<b>5. 6.</b>	(a) Applic (b) Applic	able Construction of a		I B31.1 I for Repairs of	19 69 or Replacement eplacement Co	ts 1992 <u>-A92</u>	N/A Adden	ida N/A	Code Case.
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other I	dentification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
	culation n Flange	Energy Steel	HT#592WNE	N/A	CWO A60684		1994	Replaced	No
	T. 19	it segar							
							-		
<b>7</b> .	Description	of Work:	Replaced flange of	on Recirc Sys	tem Piping.				
8.	Tests Cond	lucted: Other	Hydrostatic Pressur	re <u>102</u>	Pneumatic 20 Psi	Test Temp	Iominal Operati	ng Pressure	X
			orm of lists, sketch t is included on ea						

9. Remarks:	sent replaced flange to vendor		sion. Replaced flange on recirculation line, and flange will be destroyed during vendor tests.
			·
	CERTIFIC	CATE OF COMPLIANCE	
We certify that the	statements made in the report are		
conforms to the rule	es of the ASME Code, Section XI		r replacement)
Type Code Symbol	Stamp None		
Certificate of Author	rization No. No.	ne Expiration Date	N/A
Signed Lynn	Owner of Owner's Designee,	ent Reliability Date <u>Ma.</u> Title	<u>y 2,</u> 2003
	CERTIFIC	CATE OF INSERVICE INSPE	CCTION
			r and Pressure Vessel Inspectors and
the State or Provinc	e of Iowa Hartford, Conn.	and employed t	omponents described in this Owner's Report
			, and state that to the best of
			re measures described in this Owner's Report in
accordance with the	requirements of the ASME Code	, Section XI.	-
examinations and co	prrective measures described in the	is Owner's Report. Furthermore	expressed or implied, concerning the conceining the
liable in any manner	tor any personal injury or prope	rty damage or a loss of any kind	arising from or connected with this inspection.
70-	Commissions	National Board, State, Pro-	1496 IA
Inspector's	Signature	National Board, State, Pro	ovince, and Endorsements

Date <u>5-14</u>, 2003 \_

1.	Owners	Alliant Energy Name	y (IES Utilities)		Date	05/2/0	3		
	P. O. Box	351, Cedar Rapi Addro	ds, IA 52406		Sheet	1	_ of	2	· · · · · · · · · · · · · · · · · · ·
2.	Plant	Duane Arnold Name			Unit	1			
	3277 DAE	C Road, Palo, L			Repair Organ	MWO 1 ization to P.		No., etc.	
<ol> <li>3.</li> <li>4.</li> </ol>	3277 DAE	Name C Road, Palo, Landon of System:	Containmer	·	Type Code Sy Authorization Expiration Da	i No. ate	Nor Nor	ne ne	
5. 6.	(b) Applic		Section XI Utilized		or Replacements 19 eplacement Compos		58 Adden	ida <u>N/A</u>	Code Case
. 1	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identif Work Order / 1	ication	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
1	led Lifting (wekled) in ell	DuBose Steel	HT #822K42160	NA	MWO 1121803/	SUS59.00	N/A	Repair/ Replacement	No
									•
	Dogginties	of Wester	Track that down 1:0:	- how on Dr	11			· · · · · · · · · · · · · · · · · · ·	
7. 8.	Tests Cond	-	Installed two lifting Hydrostatic		Pneumatic	Non	rinal Operati	ing Pressure	X
		Other	Pressur	re <u>N/A</u>	Psi T	est Temp	N/A	•F	,
in ite	ms 1 throug op of this for	h 6 on this repor m.	t is included on ea	ch sheet, and	gs may be used, pro (3) each sheet is no Order Dept., ASM	umbered and	the number	of sheets is reco	orded at

<sup>\*</sup>No pressure test required per relief request MC-P001.

		•
9.	Remarks:	During replacement of the Drywell coolers during RFO 18, installed two lifting lugs on the drywell to facilitate
		the project. Performed a VT-1 (P03016) of surface prior to installation of lugs. Welds for lugs received surface
		exam as required by construction code. No pressure test was performed, as this was considered a minor repair to
		the Drywell, and DAEC relief request MC-P001 allows waiting until the next time a 10CFR 50 Appendix J test
		is performed to demonstrate leak tightness. Note to pressurize this area would require performing an Integrated
	-	Leak Rate Test.

CERTIFICATE OF	CUMPLIANCE							
We certify that the statements made in the report are correct an	· · · · · · · · · · · · · · · · · · ·							
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 Control of Owner's Designee, Title	vility Date May 2, 2003							
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 and employed byHSB CT								
of Hartford, Conn.	have inspected the components described in this Owner's Report							
during the period 1/-25 -02 to	, and state that to the best of							
my knowledge and belief, the Owner has performed examination accordance with the requirements of the ASME Code, Section 2	have inspected the components described in this Owner's Report  5.22  , and state that to the best of ons and taken corrective measures described in this Owner's Report in  XI.							
	er makes any warranty, expressed or implied, concerning the s Report. Furthermore, neither the Inspector nor his employer shall be e or a loss of any kind arising from or connected with this inspection.							
Commissions N	1B 12329ANI 1496 IN							
*								
Inspector's Signature Na	19309ANI 1496 III tional Board, State, Province, and Endorsements							

1.	Owners	Alliant Energy (IES Utilities)		Date	Date05/6/0		3		
		Name							
	P. O. Box	351, Cedar Rapi	ds, IA 52406		Sheet	1	of	2	
	Address								
2.	Plant	Duane Arnold	Energy Center		Unit	1			
		Name		· · · · · · · · · · · · · · · · · · ·	•				
	3277 DAE	C Road, Palo, IA	\ 52324			CWO A	62296		
	Address					rganization to P.		No., etc.	
3.	Work Perf	ormed by Nuclea	ar Management Co	. LLC	Type Cod	ie Symbol Stam	n Nor	ie ·	
	3. Work Performed by Nuclear Management Co. LLC Name					ation No.	Nor		
	3277 DAE	C Road, Palo, L	\ 52324		Expiratio	· · · · · · · · · · · · · · · · · · ·	Nor		
4.		on of System:		ne Isolation C	ooling (RCIC)		1102		
5.		able Constructio		E Draft P&V			/A Adden	da N/A	Code Case.
J.			Section XI Utilized				771 PROGER	14/21	Couc Casc.
6.			nts Repaired or Re						
r <u>··</u>	Identificati		lis repaired or re-	Pinood und xu	i	происив	T	<u> </u>	ASME
•	Name of	Name of	Manufacturer	l			Year Built	Repaired,	Code
C	omponent	Manufacturer	Serial No.	National	Other Id	ientification		Replaced, or	Stamped
1				Board No.	Work Ow	ier / Equip ID		Replacement	(YES or NO)
V25-	0001 Valve	Anchor Valve	0436-12	N/A	CWO A6229		N/A	Repair	No
Disc		Co			001.022			•	
					<b>]</b>				
	•					<del></del>	<del></del>		
					İ				
			-			, ,			
						· · · · · · · · · · · · · · · · · · ·			<u> </u>
				<u> </u>	<u> </u>		<u> </u>		<u> </u>
7.	Description	of Work:	Machine 0.020" f	from back of d	lisc for clearan	ıce			
8.	Tests Cond	ucted:	Hydrostatic		Pneumatic	Non	ninal Operati	ng Pressure	
		Other	Pressu	re <u>N/A</u>	Y* Psi	Test Temp	N/A	°F	
					_				
			orm of lists, sketcl						
	ems I throug on of this for		t is included on ea	ch sheet, and	(3) each sheet	is numbered and	the number	of sheets is rec	orded at

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

\*No pressure test required per relief request MC-P001.

<b>FORM</b>	NIS-2	(Ba	ck)
-------------	-------	-----	-----

9. Remarks:		d off the back of the disc the machined surface and			isc. A Magnetic Particle Inspection
				<del></del>	
	(	CERTIFICATE OF CO	MPLIANCE		
We certify that the	statements made in the	report are correct and thi			
conforms to the rule	es of the ASME Code, S	Section XI.	(repa	ir or replacement	9
Type Code Symbol	Stamp	None			
Certificate of Author		None	_ Expiration I	Date	N/A
Signed Q13		GL Equipment Reliability	Date	72AY 14	2003
	Owner or Owner's	Designee, Title	-		
	•	CERTIFICATE OF INS	SERVICE INS	PECTION	,
		ssion issued by the Nation			
the State or Provinc	e of	Iowa	_ and employe	ed by HSB C	T
of	Hartford, Conn.				escribed in this Owner's Report
during the period	4-11-03	01	-14-0 j	-4: masonnes d	_ , and state that to the best of escribed in this Owner's Report in
accordance with the	requirements of the A	SME Code, Section XI.	ing riven colle	CHVE HEASULES O	escribed in this Owner's Report in
400100000000000000000000000000000000000	Todanomorra de mas e	Mas 0000, 0000000000000000000000000000000			
		ector nor his employer ma			
					Inspector nor his employer shall be or connected with this inspection.
hable in any main.	TOT any personal injury			•	-
11		mmissions VB	12329.	ANI,	1996 Fy
Inspector's	Signature	Nation	al Board, State,	Province, and E	indorsements
Date <u>5-14</u>	<u> </u>	2003			

1.	Owners	Alliant Energy	y (IES Utilities)	<del></del>	Date	05/14	/03	· · · · · · · · · · · · · · · · · · ·	
	P. O. Box	351, Cedar Rapi Addro	ds, IA 52406	<del></del>	Sheet	1	Of	2	
2.	Plant	Duane Arnold			Unit	1			
	3277 DAE	Name C Road, Palo, L Addre	A 52324		Repair O	PWO 1	119843 O. No., Job	No., etc.	
3.	3277 DAE	Name C Road, Palo, L			Type Cod Authoriza Expiration	le Symbol Stam ation No. n Date	•	ne ne	
4. 5. 6.	(a) Applic (b) Applic			E III for Repairs o		Edition V ts 1992 <u>-A92</u>	V68 Adden	đa <u>N/A</u>	Code Case
C	Name of omponent anger No.)	Name of Manufacturer	Manufacturer Serial No.	National Board No.		lentification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
Pilot	Valve	Target Rock	S/N 218	N/A	PWO 111	9843 / 83.04	1976	Replacement	Yes
7.	Description		The Pilot Valve w		nd documented	l on NIS-2 (18-0	1-02). This	Pilot Valve was	rotated in
8.	Tests Cond	ucted:	Hydrostatic		Pneumatic	Non	ninal Operati	ng Pressure	X
		Other	Pressur	re <u>102</u>	0 psi	Test Temp	210	°F_	
in ite	ms 1 throug		orm of lists, sketch t is included on eac						

9.	Remarks:		cumented on NIS-2 (18	nd pilot valve S/N 218 was installed. Prior to installation S/N 218 was 18-01-02). A VT-2 (103001) was completed on the mechanical connection
			CERTIFICATE	E OF COMPLIANCE
We cr	atify that the	statements made in	the report are correct:	
confo	eme to the rul	les of the ASME Cod	vie Section XI.	(repair or replacement)
Type	Code Symbol	.Stamp	None	
Certif	ficate of Autho	orization No.	None	Expiration Date N/A
Signe	· Du	Dues los	TI Paninment Rel	eliability Date May 14, 2003
<u></u>	, , , ,	Owner or Own	er's Designee, Title	eliability Date May 14, 2003
	<del></del>			
ļ			CERTIFICATE (	E OF INSERVICE INSPECTION
			amission issued by the	he National Board of Boiler and Pressure Vessel Inspectors and
the Sta	ate or Province	ce of	Iowa	and employed by HSB CT
of	g the period	Hartford, Co.		have inspected the components described in this Owner's Report  5-14-03, and state that to the best of
my kn	owledge and l	belief, the Owner ha	nas performed examina	nations and taken corrective measures described in this Owner's Report in
			ne ASME Code, Section	
				ployer makes any warranty, expressed or implied, concerning the
exami	inations and co	corrective measures d	described in this Owne	vner's Report. Furthermore, neither the Inspector nor his employer shall be
liadie /	n any manuc	f for any personal m	nury or property cana	mage or a loss of any kind arising from or connected with this inspection.
<u>ال _</u>	<u></u>	-	Commissions	NB 1339ANT 1496 Ty National Board, State, Province, and Endorsements
		<del></del>		
•	Inspector's	3 Signature	ì	National Board, State, Province, and Endorsements

1.	Owners			Date	05/	/14/03					
		Name									
	P. O. Box 351, Cedar Rapids, IA 52406			Sheet	1	Of	2				
		Addr	ess								
2.	Plant	Duane Arnold	Energy Center		Unit	1					
		Name									
	3277 DAEC Road, Palo, IA 52324			PWO 1119844							
	Address			Repair Organization to P. O. No., Job No., etc.							
3.	Work Perf	ormed by Nuclea	ar Management Co	LLC	Type Cod	Type Code Symbol Stamp None					
		Name	2		Authoriza		No	ne			
		C Road, Palo, L			Expiration		No	ne			
4.		ion of System:			f Valve (Class						
5.		able Constructio			<u> </u>		W68 Adde	nda <u>N/A</u>	Code Case		
_			Section XI Utilized								
6.	Identificati	on of Componer	its Repaired or Re	placed and Re	placement Cor	mponents			ASME		
,	Name of	Name of	Manufacturer				Year Built	Repaired,	Code		
	omponent	Manufacturer	Serial No.	National	Other Identification			Replaced, or	Stamped		
Œ	anger No.)			Board No.	Work Order / SUS			Replacement	(YES or NO)		
Pilot	Valve	Target Rock	S/N 226	N/A		9844 / 83.04	1976	Replacement	Yes		
_									· · · · · · · · · · · · · · · · · · ·		
	•					····		<b>!</b>	ļ		
	• 1				<u> </u>			<b> </b>	1		
							<del>- 1</del>		<del>                                     </del>		
							•				
			<u> </u>			<del></del>			<u> </u>		
		-						<u> </u>			
7.	Description	n of Work:	The Pilot Valve w	vas repaired a	nd documented	l on NIS-2 (1	8-01-02). This	Pilot Valve was	s rotated in		
8.	Tests Conducted:		Hydrostatic 1		Pneumatic	Nominal Operating Pressure		ing Pressure	X		
Other Pressure 1020 psi Test Temp 210 °F											
in it		th 6 on this repor	orm of lists, sketch t is included on ea								

1	repaired and documented on NIS-2 (18-01-02). A VT-2 (103001) was completed on the mechanical connection and found acceptable.							
	CERTIFICATE OF COMPLIANCE							
We certify that the sta	itements made in the report are corr	rect and this	Replacement					
conforms to the rules	of the ASME Code, Section XI.		(repair or replacement)					
	·							
Type Code Symbol St	tamp None							
Certificate of Authoriz	zation No. None	Expir	ration Date N/A					
Signed Line	Signed Line of TL Equipment Reliability Date Wes 14 2003 Owner or Owner's Designee, Title							
	CERTIFICAT	TE OF INSERVIC	CE INSPECTION					
			rd of Boiler and Pressure Vessel Inspectors and					
the State or Province of	of Iowa Hartford, Conn.		employed by HSB CT extends the components described in this Owner's Report					
during the period	10-17-62 to	have inspe-						
my knowledge and bel		minations and taken	en corrective measures described in this Owner's Report in					
	cots naither the Incrector roop his er		y warranty, expressed or implied, concerning the					
examinations and corre	rective measures described in this O		urthermore, neither the Inspector nor his employer shall be f any kind arising from or connected with this inspection.					
examinations and corre	rective measures described in this O or any personal injury or property d  Commissions	damage or a loss of						

1.	Owners Alliant Energy (IES Utilities)			Date	05/14/03					
		Name								
	P. O. Box 351, Cedar Rapids, IA 52406				Sheet	. 1	Of	2		
		Addre	ess							
2.	Plant	Plant Duane Arnold Energy Center			Unit	1				
	Name									
	3277 DAEC Road, Palo, IA 52324				PWO 1119845					
	Address			<del></del>	Repair Organization to P. O. No., Job No., etc.					
3.	Work Performed by Nuclear Management Co. LLC			IIC	Type Code Symbol Stamp None					
Э.	WOILFCIE	Name	u Management C	<u>,, p.c.c.</u>		Authorization No. None				
	3277 DAE	C Road, Palo, IA	52324			Expiration Date None				
4.		ion of System:		Safety Relief	Valve (Class 1)		1102			
5.		able Construction			19 68		W68 Adden	da N/A	Code Case.	
			Section XI Utilized		r Replacements					
6.			its Repaired or Re							
					-				ASME	
	Name of omponent	Name of Manufacturer	Manufacturer Serial No.	National	Other Identification	dification	Year Built	Repaired, Replaced, or	Code Stamped	
	anger No.)			Board No.	Other Reconstruction		1	Replacement	(YES er	
					Work Order / SUS		NO			
Pilot Valve		Target Rock	S/N 189	N/A	PWO 1119845 / 83.04		1976	Replacement	Yes	
<del></del>										
					<del></del>					
			-		· · · · · · · · · · · · · · · · · · ·	<del></del>	_	<del></del>		
					<del></del>		-			
	<del></del>									
7.	Description	n of Work:	The Pilot Valve v place of S/N 201.	(200)pg	5 7/1/2003	on NIS-2 (18-	02-08). This	Pilot Valve was	rotated in	
8.					Pneumatic Nominal Operating Pressure				X	
Other Pressure 1020 psi Test Temp 210 ° F										
	•					- •				
			orm of lists, sketch							
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:	Pilot Valve S/N 20 repaired and docur and found acceptal	nented on NIS-2							
	and tound acceptate	<u>//c.</u>	·					<del></del>	<del></del>
		CERTIFICAT	E OF COM	APLIAN(	CE				
We certify that the s	tatements made in th	ne report are corr	ect and this		eplacemen		nt)		
conforms to the rule	s of the ASME Code	e, Section XI.		(1	cpan or re	cpiacente	шу		
Type Code Symbol	Stamp	None	<del></del>						
Certificate of Author	rization No.	None		Expiration	on Date		N/A	·	
Signed Punch	Demfes	TL Equipment I 's Designee, Titl	Reliability	Date	man	14,		2003	
-	Owner or Owner	's Designee, Titl	e	_	J			<del>-</del>	
		CERTIFICAT	E OF INSI	RVICE	INSPECT	TION			
I, the undersigned, h	olding a valid comm	ission issued by	the Nationa	l Board o	f Boiler a	nd Pressu	re Vessel I	Inspectors and	
the State or Province		Iowa			loyed by	HSB			
of during the period	Hartford, Com	n. to			on the con			in this Owner's tate that to the b	
my knowledge and be accordance with the	elief, the Owner has	performed exam	rinations an	d taken co	orrective n	neasures	described i		
	-	-					inliad	aanaamina sha	
By signing this certifications and co									er shall be
liable in any manner	for any personal inju	ury or property d	amage or a	loss of an	y kind ari	sing from	or connec	ted with this in:	spection.
JR		ommissions	NB 1	03 <i>094</i>	WI	/9	196 == Endorseme	4	
Inspector's	Signatur <del>e</del>		National	Board, St	ate, Provi	nce, and	Endorseme	ents	
Date 5-14-	03	;2001-							
		JB 5-14-63							

1.	Owners		y (IES Utilities)		Date	05/14/	/03		<u></u>
		Name							
	P.O. Box	351, Cedar Rapi			Sheet	1	Of	2	
		Addro	ess						
2.	Plant	Duane Arnold	Energy Center		Unit	1			
		Name	•		•				
	3277 DAE	C Road, Palo, L	A 52324			PWO 1	119846		
		Addre			Repair O	rganization to P.		No., etc.	
·3.	Work Perf	ormed by Nucles	ar Management Co	LLC	Type Cod	de Symbol Stam	o Non	le ·	
٠.	VI 022 2 022	Name			Authoriza		Non		
	3277 DAE	C Road, Palo, LA	\ 52324		Expiration	n Date	Non		<del></del>
4.		on of System:		Safety Valve					
5.	(a) Applic	able Constructio	n Code 'ASM	ЕШ	19 68	Edition Se	69 Adden	da N/A	Code Case.
	(b) Applic	able Edition of S	Section XI Utilized	for Repairs of	r Replacemen	ts 1992 <u>-A92</u>	<del></del>		
6.	Identificati	on of Componer	its Repaired or Rej	olaced and Re	placement Con	mponents			
C	Name of omponent anger No.)	Name of 'Manufacturer	Manufacturer Serial No.	National Board No.		dentification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
Stud	for PSV4403	Cardinal Industrial	Ht# 8097296	N/A		Order / SUS 19846 / 83.04	1992	Replacement	No
ı—		Housurai	·		<del></del>		<del>   </del>		
-	r .	4.4							
		-					1 1		
									<del></del>
	<u> </u>		· · · · · · · · · · · · · · · · · · ·						
					<u> </u>				
7.	Description	of Work: 😁 _	Replaced stud on	Safety Valve	PSV4403, wh	ich was damaged	during disas	ssembly.	
8.	Tests Cond	lucțed:	Hydrostatic		Pneumatic	Non Non	ninal Operati	ng Pressure	X
		Other	Pressur	re102	20 psi	Test Temp	210	°F	
			orm of lists, sketch						

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:	<u>During removal of Main Ste</u> (103001) was completed.	ım Safety Valve PSV44	03, stud was dama	aged and replaced. Successful VT-2
	CERTI	TICATE OF COMPLI	ANCE	
We certify that the	statements made in the report a	re correct and this	Replacement	
conforms to the rule	es of the ASME Code, Section	XI.	(repair or replac	ement)
Type Code Symbol	Stamp None			
Certificate of Author	prization No.	None Expi	iration Date	N/A
Signed Ru	mee Dev for Equip	oment Reliability Date	may	4, 2003
	Owner or Owner's Design	e, Title		<del>-1</del>
		<del></del>		
	CERTI	ICATE OF INSERVI	CE INSPECTIO	٧
I, the undersigned, I the State or Province	holding a valid commission issue of Iowa		rd of Boiler and Pre employed by	
of	Hartford, Conn.	have insp	ected the compon	ents described in this Owner's Report
during the period	4-8-63			, and state that to the best of
accordance with the	e requirements of the ASME Co	de, Section XI.	n confecuve meas	ures described in this Owner's Report in
	-			and an implied concerning the
examinations and co		this Owner's Report. F	urthermore, neithe	er the Inspector nor his employer shall be
liable in any manne	r for any personal injury or pro	perty damage or a loss o	f any kind arising	from or connected with this inspection.
JR	Commission	18 NB 123	29ANI-	1496 Eq and Endorsements
Inspector's	Signature	National Board	i, State, Province,	and Endorsements
5-4	4 2002			

1.	Owners	Alliant Energ	y (IES Utilities)		Date	05/14	1/03	<u></u>	
	P. O. Box	351, Cedar Rapi	ds, IA 52406	····	Sheet	11	Of	2	
		Addr	ess						
2.	Plant	Duane Arnold	Energy Center		Unit	1			
		Name	<b>5</b>						
	3277 DAE	C Road, Palo, L	A 52324			PWO 1	119848		
		Addr	ess		Repair Organ	rization to P	O. No., Job	No., etc.	
3.	Work Perf	ormed by Nucle	ar Management Co	LLC	Type Code S	ymbol Stam	p Nor	ie .	
		Name			Authorization		Non		
_		C Road, Palo, L			Expiration D	ate	Non	ie `	
4.		on of System:		· · · · · ·	(Class 1)	T. 1'4' T	1760 A 11	1. 37/4	010
5.		able Construction	n Code <u>ASM</u> Section XI Utilized				W68 Adden	da N/A	Code Case
6.			nts Repaired or Rep						
<del>0.</del>	Identificati	lon or componer			pmountain compa	понь	1		ASME
	Name of	Name of	Manufacturer				Year Built	Repaired,	Code
_	omponent anger No.)	Manufacturer	Serial No.	National Board No.	Other Identi	ncamon		Replaced, or Replacement	Stamped (YES or
					Work Orde				NO)
Pilot	Valve	Target Rock	S/N 141	N/A	PWO 111984	8 / 83.04	1976	Replacement	Yes
<i>}</i>					<u> </u>	<del>-</del>			<u> </u>
		<u> </u>			·	<del> </del>			
					<u> </u>	·			
							-		
									· ·
		· ·							
				·			<u>. L </u>		
7.	Description	n of Work:	The Pilot Valve w place of S/N 176.	vas repaired ar	nd documented on	NIS-2 (18-0	01-02). This	Pilot Valve was	rotated in
8.	Tests Cond	lucted:	Hydrostatic		Pneumatic [	No	minal Operati	ng Pressure	X
		Other	Pressur	re102	0 psi T	est Temp	210	°F_	
								44	
NO	E: Supplen	ental sheets in f	orm of lists, sketch	es, or drawing	gs may be used, pr	ovided (1) s	ize is 81/2 in	x 11 in., (2) in	formation
m m	op of this for	n o on uns repor	t is included on ea	cn sneet, and (	(3) cach sheet is in	umbered and	i me number	di succts is leco	MOCO SI
me r			0030) may be obtai	ned from the	Order Dept., ASM	E, 345 E. 41	7th St., New ?	York, NY 1001	7.

9. Remarks: Pilot Valve S/N 176 was removed and pilot valve S/N 141 was installed. Prior to installation S/N 141 was repaired and documented on NIS-2 (18-01-02). A VT-2 (103001) was completed on the mechanical connection and found accentable.								S/N 141 was nanical connection	
and found acceptable.									
<del></del>								<del></del>	
		CERTIFICATI	e of con	<b>APLIA</b>	NCE				
We certify that the s	tatements made in	the report are corre	ect and this		Replacement				
		- I- Castian VI		-	(repair or rep	lacemen	it)		<del></del>
conforms to the rule	3 of the Asme Cou	e, Secuon Al.							
Type Code Symbol S	Stamp	None							
Certificate of Author	rization No.	None		Expir	ation Date		N/A		
Signed Fine	whenty	TL Equipment R	eliability	Date	may	14	-	2003	
Digition ( Vere	Owner or Owne	TL Equipment R	<del>,</del>		7		<b></b>		
							<del> </del>		
	<del></del>					<u> </u>			
		CERTIFICATE	e of insp	IRVIC	E INSPECTI	ON			
I, the undersigned, he		mission issued by t	he Nationa	l Board	1 of Boiler and	i Pressur	e Vessel	Inspecto	rs and
the State or Province	of	lowa		and er	mployed by	HSB (	CT		
of	Hartford, Con								wner's Report
during the period	10-17-06								to the best of
my knowledge and b accordance with the				a taken	CONTECUVE THE	asures o	lescribeu	in this U	wner's Report in
By signing this certif	ficate neither the In	spector nor his em	nlover mak	ces anv	warranty, exc	ressed o	r implied	Concert	ning the
examinations and con	rrective measures d	escribed in this Or	vner's Rep	ort. Fu	rthermore, ne	ither the	Inspector	r nor his	employer shall be
liable in any manner	for any personal in	jury or property da	image or a	loss of	any kind arisi	ng from	or conne	cted with	this inspection.
JA	: 	Commissions	NC.	<b>ろ</b> 16	1329AN.	<b>-</b> .	149	76 I	
Inspector's			National	Board,	339AN3 , State, Province	ce, and I	ndorsem	ents	E
Date5 -	14	, 2003							

1.	Owners	Alliant Energ	y (IES Utilities)		Date	05/14	4/03		
		Name	<b>t</b>						
	P. O. Box	351, Cedar Rapi	ds, IA 52406		Sheet	1	Of	2	
		Addn			•				··················
2.	Plant	Duane Arnold	Energy Center		Unit	1			
	2 20024	Name			•		<del></del>		···
	2227 DAT	CD and Date 11	52224			;	1110040		
	3211 DAE	C Road, Palo, L Addre		<del></del>	Repair O	rganization to P	1119849 P. O. No., Job	No., etc.	·
					-		•		
3.	Work Perf		r Management Co	<u>LLC</u>		ie Symbol Stan			
	3277 DAE	Name C Road, Palo, L	52324		Authoriza Expiration		No.		
4.		ion of System:		Safety Relie	f Valve (Class		1101		
5.		able Construction			19 68		W68 Adder	nda N/A	Code Case
			Section XI Utilized						•
<u>_6.</u> _	Identificati	ion of Componer	nts Repaired or Re	placed and Re	placement Cor	mponents	<del> </del>	<del></del>	ASME
٠,	Name of	. Name of	Manufacturer		1		Year Built	Repaired,	Code
	lomponent Langer No.)	Manufacturer	Serial No.	National Board No.	Other Id	lentification	1	Replaced, or Replacement	Stamped (YES or
					Work C	order / SUS		Aceptacement	NO)
Pilot	Valve	Target Rock	S/N 203	NA	PWO 111	9849 / 83.04	1976	Replacement	Yes
ř						<del></del>			
		11,500							
-									
			•						
7.	Description	n of Work:	The Pilot Valve we place of S/N 227.		nd documented	l on NIS-2 (18-	02-08). This	Pilot Valve was	s rotated in
8.	Tests Cond	lucted:	Hydrostatic		Pneumatic	No.	minal Operat	ing Pressure	X
		Other	Pressur	re <u>102</u>	0 psi	Test Temp	210	°F	
in it	TE: Supplen	h 6 on this repor	orm of lists, sketch t is included on ea	nes, or drawing ch sheet, and	gs may be used (3) each sheet i	l, provided (1) s is numbered an	size is 81/2 in d the number	. x 11 in., (2) in of sheets is reco	formation orded at

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

9.	Remarks:	Pilot Valve S/N 2 repaired and docu and found accepts	umented on NIS-2	<u>ind pilot valve S/I</u> (18-02-08). A V	<u>1 203 was insta</u> <u> </u>	alled. Prior to installation S/N203 was vas completed on the mechanical connection
			CERTIFICAT	TE OF COMPLIA	ANCE	
We ce	rtify that the	statements made in	the report are corr	ect and this	Replacement	
confor	rms to the rule	es of the ASME Cod	de, Section XI.		(repair or rep	lacement)
Туре	Code Symbol	Stamp	None			
Certifi	icate of Autho		None		ration Date	N/A
Signed	1 Lane	Owner or Owne	TL Equipment I	Reliability Date	Mey	14 2003
~ <u>-</u>						
			CERTIFICAT	E OF INSERVIO	CE INSPECTI	ION
	undersigned, l ate or Provinc		mission issued by		rd of Boiler and employed by	Pressure Vessel Inspectors and HSB CT
of _		Hartford, Con	m.	have inspe	ected the comp	onents described in this Owner's Report
my kn		1-38-03 belief, the Owner has requirements of the	as performed exam	ninations and take		, and state that to the best of easures described in this Owner's Report in
exami	nations and co	orrective measures d	described in this O	wner's Report. F	urthermore, nei	ressed or implied, concerning the ither the Inspector nor his employer shall be ng from or connected with this inspection.
د	2		Commissions	NB 1232	JANI,	1496 = 74 ce, and Endorsements
	Inspector's	Signature		National Board	, State, Provinc	ce, and Endorsements
Date	5-1	4	_ , 2003			

1.	Owners		y (IES Utilities)		Date _	05/14	/03		
		Name	•						
	P. O. Box	351, Cedar Rapi	ds, IA 52406		Sheet _	1	Of	2	
		Addr	ess						
2.	Plant	Duane Arnold	Energy Center		Unit	1			
		Name			_				
	3277 DAE	C Road, Palo, I	\ 52324			PWO 1	119850		
		Addr		<del></del>	Repair Org	anization to P.		No., etc.	
_									
3.	Work Perf		ar Management Co	LLC		Symbol Stam			
	2277 10 4 17	Name	. 50204		Authorizat		Not		
4.		C Road, Palo, La ion of System:		Safety Delies	Expiration Valve (Class 1)		Nor	ic	
5.		able Construction			19 68		V68 Adden	da N/A	Code Case
٥.			Section XI Utilized				VUO AUGEI	tua IVA	, Code Case
6.			its Repaired or Re						
		1					1		ASME
	Name of component	Name of Manufacturer	Manufacturer Serial No.	Nestanal	Oth 7.4	-454	Year Built	Repaired,	Code
_	omponent langer No.)	Minningturer	Seliai Mo.	National Board No.	Other ide	ntification	1	Replaced, or Replacement	Stamped (YES or
`						der/SUS			NO)
Pilot	Valve	Target Rock	S/N 202	N/A	PWO 1119	850 / 83.04	1976	Replacement	Yes
<del>/</del>									
		· · · · · · · · · · · · · · · · · · ·							<del> </del> -
									<del> </del>
	4	AN 4.5							
							<u> </u>		<b></b>
							<del>-</del>		
7.	Description	of Work:	The Pilot Valve w	as repaired ar	ad documented	on NIS-2 (18-0	01-02). This	Pilot Valve was	rotated in
		-	P	·	<del></del>				<del></del>
8.	Tests Cond	lucted:	Hydrostatic		Pneumatic	Nor	ninal Operati	ng Pressure	X
		Other	Pressur	e 102	0 psi	Test Temp	210	•F	
	_			<u></u>		-			
			orm of lists, sketch						
			t is included on ea	ch sheet, and (	3) each sheet is	numbered and	i the number	of sheets is rec	orded at
une t	op of this for		1020) more ha chi-	nad from the f	Indon Done AS	NE 246 D 45	74 C4 37 1	U.J. NTV 1001	7
	(12/02)	TIES LOTH (EAC	030) may be obtai	men mom me (	лист Берг., Аб	NLC, 343 E. 47	m or nem	IOIK, NI IUUI	1.

9. Remarks:		l and pilot valve S/N 202 was installed. Prior to installation S/N202 was 2 (18-01-02). A VT-2 (103001) was completed on the mechanical connection
	CERTIFICA	TE OF COMPLIANCE
We certify that the s	statements made in the report are con	rrect and this Replacement
-	-	(repair or replacement)
conforms to the lute	s of the ASME Code, Section XI.	
Type Code Symbol	Stamp None	
Certificate of Author	rization No. None	Expiration Date N/A
Signed Runnel	Owner of Owner's Designee, Ti	t Reliability Date May 14, 2003
	CERTIFICA	TE OF INSERVICE INSPECTION
		y the National Board of Boiler and Pressure Vessel Inspectors and
the State or Province of		
during the period		, and state that to the best of
	pelief, the Owner has performed exa	minations and taken corrective measures described in this Owner's Report in
accordance with the	requirements of the ASME Code, S	ection XI.
examinations and co	rrective measures described in this	employer makes any warranty, expressed or implied, concerning the Owner's Report. Furthermore, neither the Inspector nor his employer shall be damage or a loss of any kind arising from or connected with this inspection.
JP	Commissions	National Board, State, Province, and Endorsements
Inspector's		

\_\_\_\_\_, 2003

Date 5-14

1.	Owners	Alliant Energ	y (IES Utilities)		Date _	06/25/	03		
	P.O. Box	351, Cedar Rapi Addr	ids, IA 52406		Sheet	1	Of	2	
2.	Plant	Duane Arnold Name	Energy Center		Unit _	1			
	3277 DAE	C Road, Palo, L Addr			Repair Or	CWO A ganization to P.		No., etc.	
3.	Work Perf		ar Management Co	LLC		e Symbol Stamp			
	00555	Name			Authoriza		Non		
4.		C Road, Palo, Lion of System:		n Canton Dra	Expiration op Seal (Class		Non	e	
5. 6.	(a) Applic (b) Applic	able Construction of a		E Section III for Repairs of	19 68 or Replacement	Edition s 1992 <u>-A92</u>	Adden	da <u>N/A</u>	Code Case
C	Name of omponent langer No.)	Name of Manufacturer	Manufacturer Serial No.	National Board No.		entification rder/SUS	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
Recir 1P20	re Seal for 1B	Byron Jackson	S/N 691-S-1006	N/A		3727 / 64.01	1971	Replacement	No
	ţ								
		· · · · · · · · · · · · · · · · · · ·				<del></del>			
7.	Description	n of Work:	The replacement	recirculation p	oump seal was i	repaired under N	IS-2 (18-02-	05).	·
8.	Tests Cond	lucted:	Hydrostatic		Pneumatic	Nom	inal Operati	ng Pressure	X
		Other	Pressur	re 102	20 psi	Test Temp	210	°F	
in ite		h 6 on this repor	form of lists, sketch tt is included on eac						

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

9. Remarks:	Recirc seal s/n documented o was found acc	n NIS-2 (18-02-05). A	seal s/n 741S274 VT-2 (103001) v	l. Prior to insta vas completed (	allation seal 691-S-1006 was repaired and on the assembly attached to the pump, and	)
		CERTIFICATE	E OF COMPLIA	NCE	1	
We certify that the s		in the report are correct	ct and this	Replacement (repair or repla	acement)	
Type Code Symbol	Stamp	None				
Certificate of Author Signed Carelle		None  TL Equipment Rowner's Designee, Title	Expire Expire		<del>-</del>	
		CERTIFICATE	e of inservio	E INSPECTIO	МС	~
the State or Provinc of during the period my knowledge and	e of Hartford, 10-16- belief, the Owne	Conn.	and e have inspections 6-26- inations and taken	mployed by ected the compo - 2	Pressure Vessel Inspectors and HSB CT ments described in this Owner's Report , and state that to the best of asures described in this Owner's Report in	
examinations and co	prrective measur	es described in this Ov	vner's Report. Fi	nthermore, neit	essed or implied, concerning the ther the Inspector nor his employer shall be ag from or connected with this inspection.	
Inspector's	Signature	Commissions	NS 133	) ANE , State, Provinc	1496 I.A e, and Endorsements	

Date <u>6-26</u>

1.	Owners Alliant Energy (IES Utilities)		Date _	06/25/	06/25/03				
		Name	e .			-			•
	P. O. Box	351, Cedar Rapi	ids, IA 52406		Sheet	1	Of	2	
		Addr			-	<del></del>			
2.	Plant	Duana Amald	Energy Center		TTuis	1			
Z.	Plant	Name Arnord		· · · · · · · · · · · · · · · · · · ·	Unit _	1			<del>- , , , , , , , , , , , , , , , ,</del>
	3277 DAI	C Road, Palo, L			<del></del>	CWO A			
		Addr	ess		Repair Or	ganization to P.	O. No., Job	No., etc.	•
3.	Work Peri	formed by Nucle	ar Management Co	LLC	Type Code	e Symbol Stamp	Nor	ie.	
-	0222 2 022	Name		<u> </u>	Authoriza	-	Non		
	3277 DAE	C Road, Palo, L			Expiration	Date	Non		
4.		ion of System:		iler (Class 1)					
<b>5</b> .		able Construction		I B31.7	19 69	Edition	Adden	da <u>N/A</u>	Code Case
6.			Section XI Utilized or Repaired or Re						
<u>.                                    </u>	Identificat	Ton or Componer	is Repaired of Re	placed and Re	placement Con	ponents	<u> </u>		ASME
	Name of	Name of Manufacturer	Manufacturer				Year Built	Repaired,	Code
	omponent anger No.)	Manufacturer	Serial No.	National Board No.	Other Ide	entification		Replaced, or Replacement	Stamped (YES or
`		37/4				rder/SUS		<u> </u>	NO)
MIIS	PAC-11790	N/A	None	NA	CWO A57	816 / 62.00	2003	Repair/ Replacement	No
1119	PAC-11791	NA	None	NA	CWO A57	816 / 62.00	2003	Repair/ Replacement	No
	AC-11792	NA	None	NA		816 / 62.00	2003	Repair/ Replacement	No
M119	AC-11793	N/A	None	NA	CWO A57	816 / 62.00	2003	Repair/ Replacement	No
M119	AC-11794	N/A	None	NA	CWO A57	816 / 62.00	2003	Repair/ Replacement	No
								!	<u>                                 </u>
	-								
		4		•					
7.	Description	n of Work:	This work order n		ports for DBA0	09 from existing	g locations to	the insulation	
_								_	
8.	Tests Cond	fucted:	Hydrostatic	ш	Pneumatic	Non	inal Operati	ng Pressure	
		Other	Pressur	re <u>N//</u>	A psi	Test Temp	N/A	<u> • F</u>	
in ite	oms 1 throug op of this fo	th 6 on this repor	form of lists, sketch tt is included on ea 1030) may be obtai	ch sheet, and	(3) each sheet is	numbered and	the number	of sheets is reco	orded at

9. Remarks:	9. Remarks: These five supports were moved from floor attachments to being mounted to the insulation head superstructure,  Existing supports were used with only modifications to the mounting. All welds performed with Section IX  qualified procedure (P1-AT-Lh rev 8) and qualified welders,					
		CERTIFICATI	E OF COMPLIA	INCE		
We certify that the	statements made in	the report are corre	ct and this	Repair/Replacer		
conforms to the rule	es of the ASME Cod	de, Section XI.		(repair or replac	æment)	
Type Code Symbol	Stamp	None				
Certificate of Authority	$\alpha / l$	None		ration Date	N/A	
Signed <u>OC</u>	Owner or Owner	TL Equipment Reer's Designee, Title	eliability Date	Jaly 10,		_ 2003
I, the undersigned, I the State or Province			he National Board	CE INSPECTION d of Boiler and Pr	ressure Vessel	Inspectors and
of	Hartford, Con	m.	have inspe	ected the compone	ents described	in this Owner's Report
			inations and taken			tate that to the best of in this Owner's Report in
	orrective measures d	described in this Ow	wner's Report. Fu	urthermore, neithe	er the Inspector	concerning the nor his employer shall be cted with this inspection.
JP		Commissions	NB 1232	09ANI , State, Province,	1496-	IA
Inspector's	Signature		National Board	, State, Province,	and Endorsem	ents
Date 7-10	2	_ , 2003				

1.	Owners		y (IES Utilities)		Date	06/25/	/03.		<u> </u>
		Name	•			•			1.4
	P. O. Box	351, Cedar Rapi	ids, IA 52406		Sheet	1	Of	2	
		· Addr		<del></del>					
2.	Plant	Duana Arnold	Energy Center		Unit	1			2. 5 cg. 2. 5 cg. 2. 5 cg. 2. 5 cg.
۷.	riam	Name Arnold			Omi			· · · · · · · · · · · · · · · · · · ·	
								•	
	3277 DAE	C Road, Palo, L			<del></del>	CWOA			17.7
		Addr	ess		Kepair C	Organization to P.	O. No., Job	No., etc.	
3.	Work Perf	ormed by Nucle	ar Management Co	LLC	Type Co	de Symbol Stamp	Non	<b>le</b>	
		Name		·····		ation No.	Non	e	
		C Road, Palo, L			Expiration	on Date	Non	e	197
4.		ion of System:	Main Steam	Class II I B31.1	19 6	7 Edition	Adden	4- 37/4	0-1-0
5.		able Construction of	Section XI Utilized				Adden	da <u>N/A</u>	Code Case
6.			nts Repaired or Re						: :
C	Name of omponent anger No.)	Name of Manufacturer	Manufacturer Serial No.	National Board No.		dentification Order/SUS	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (YES or NO)
Valve	;	Velan	Unknown	N/A		03-0096	Unknown	Repaired	No
<del>-</del>									
						· · · · · · · · · · · · · · · · · · ·	<u> </u>		1 (A)
					·-			•	95
						•		e e	(1) (2) (4)
									1.00
									3.0
							<u>                                     </u>		- 30
<b>7.</b>	Description	of Work:	Repaired body-to-	bonnet leak o	n V03-0096				
_								_	
8.	Tests Cond	nicțed:	Hydrostatic		Pneumatic	∐ Nom	inal Operati	ng Pressure	X
		Other	Pressur	e 940	) psi	Test Temp	542	°F	ş.
			—			·			·
NOT	E: Supplem	nental sheets in f	form of lists, sketch	es, or drawing	gs may be use (3) each sheet	d, provided (1) si	ze is 81/2 in.	x 11 in., (2) in	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.

9. Remarks: <u>Valve disassembled due to body-to-bonnet leak. Ma</u> machined surface. Successfully performed VT-2 (PC	chined bonnet to remove steam cutting. Performed MT on
MRCHIEGI SHITAGE, GUIGGSSIGHIY PORTYLLING V 8 20 (4.)	15035) exam ance histanation,
	·
CERTIFICATE OF COMPLL	ANCE
We certify that the statements made in the report are correct and this	Repair
-	(repair or replacement)
conforms to the rules of the ASME Code, Section XI.	!
Type Code Symbol Stamp None	
Certificate of Authorization No. None Expi	iration Date N/A
Signed Perseul Devem for TL Equipment Reliability Date Owner or Owner's Designee, Title	9440 26th) 2003
Owner or Owner's Designee, Title	- juice -
CERTIFICATE OF INSERVI	CE INSPECTION
I, the undersigned, holding a valid commission issued by the National Boar the State or Province of Iowa and	rd of Boiler and Pressure Vessel Inspectors and employed by HSB CT
	ected the components described in this Owner's Report
during the period $3-29-03$ to $6-26$	, and state that to the best of
my knowledge and belief, the Owner has performed examinations and take	n 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	
examinations and corrective measures described in this Owner's Report. F liable in any manner for any personal injury or property damage or a loss o	
liable in any manner for any personal injury of property damage of a 1000 o	I any kind arising from or connected with this inspection.

Commissions

, 2003

Inspector's Signature

6-26

Date

NB 13399ANF, 1496 IA
National Board, State, Province, and Endorsements

Part H, page 1 of 1

Owners: Interstate Power and Light Company, an Alliant Company P.O. Box 351 Cedar Rapids, IA. 52406

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

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

National Board Number of Unit: N/A

Gross Generating Capacity: 614 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, 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, 1992, 1992 Addenda. Specific details and associated records of additional corrective measures are on file at Duane Arnold Energy Center. The corrective measures addressed were performed during the period of May 28, 2001 through April 20, 2003.

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Part I, page 1 of 14

 Owners: Interstate Power and Light Company, an Alliant Company
 P.O. Box 351 Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

P.O. Box 351
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

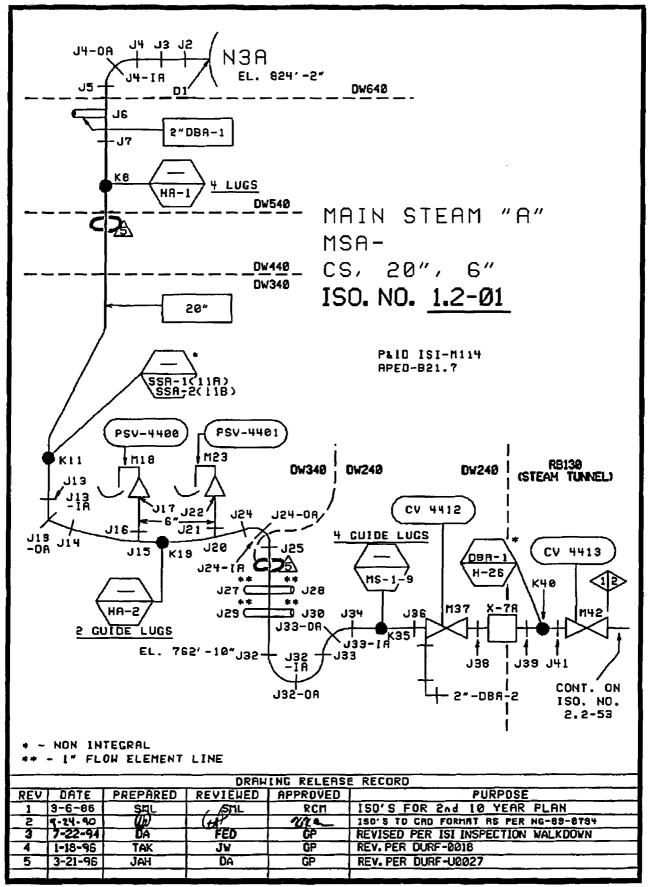
Gross Generating Capacity: 614 MWE

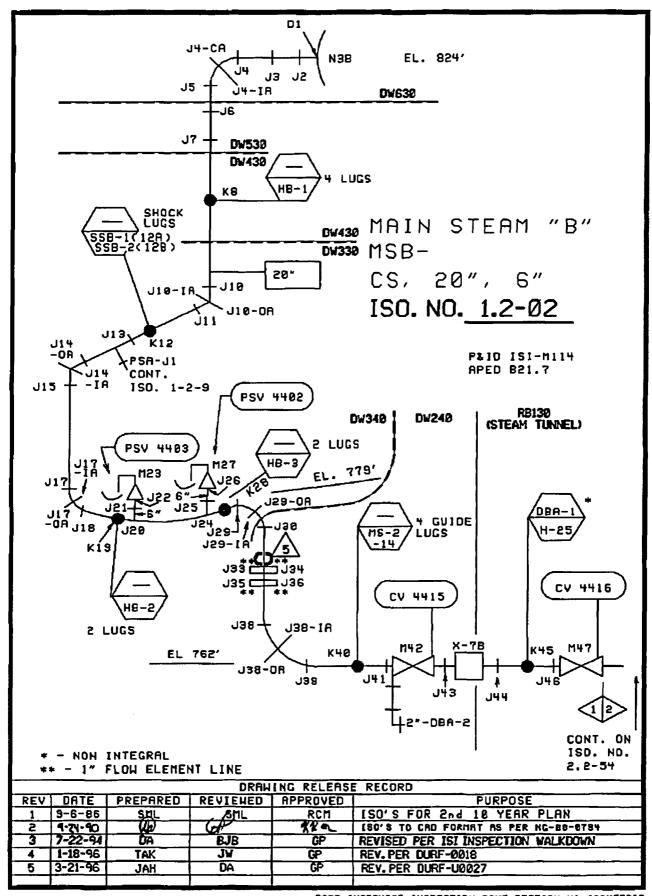
#### ISI FIGURES AND ISOMETRICS

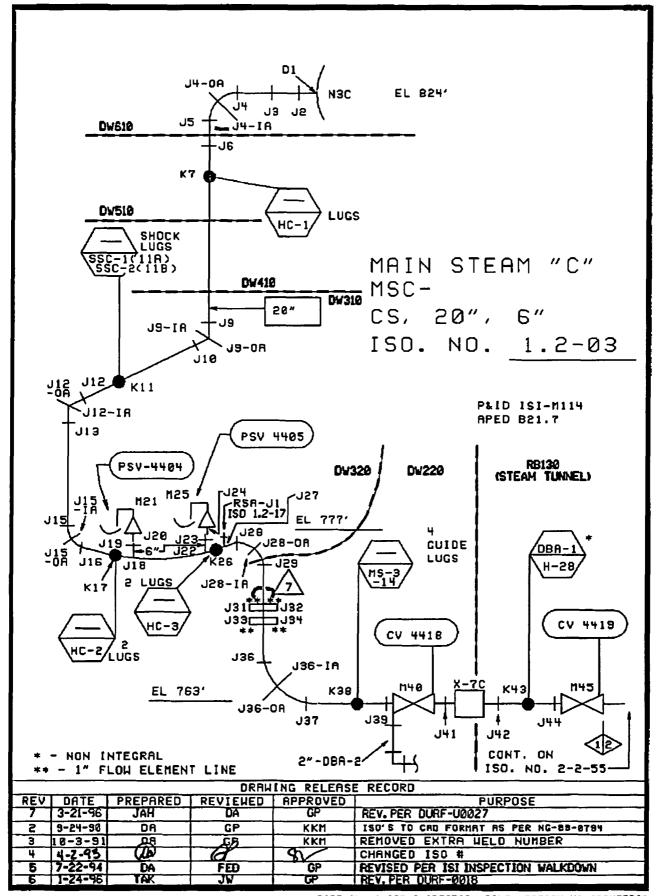
PLEASE NOTE: ISI Figures and Isometrics are listed in Part B and Part D of this report

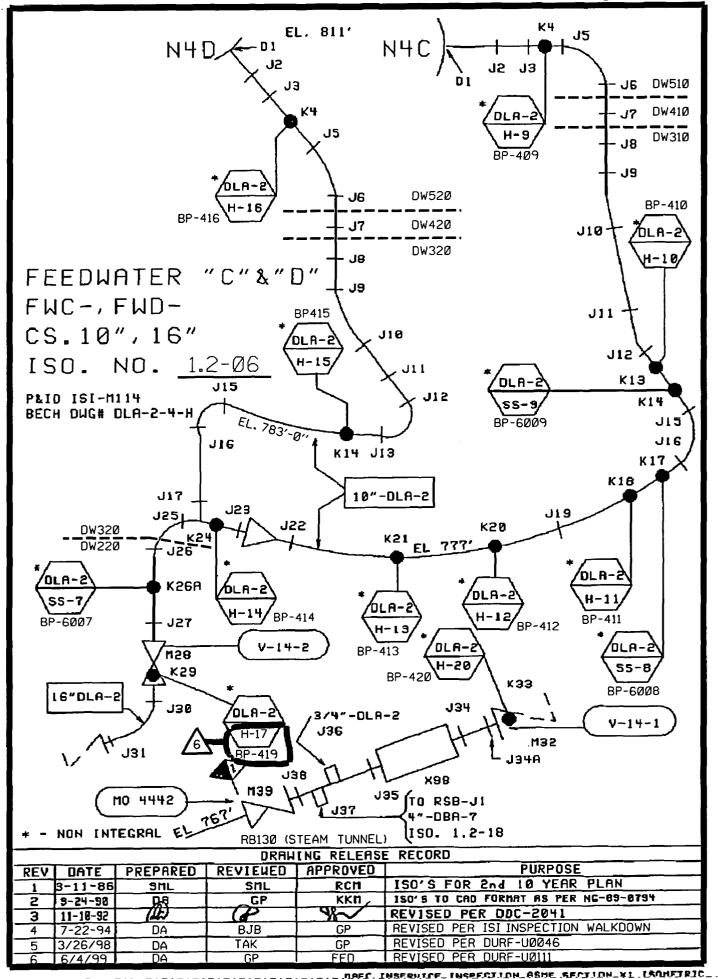
Part I, page 2 of 14

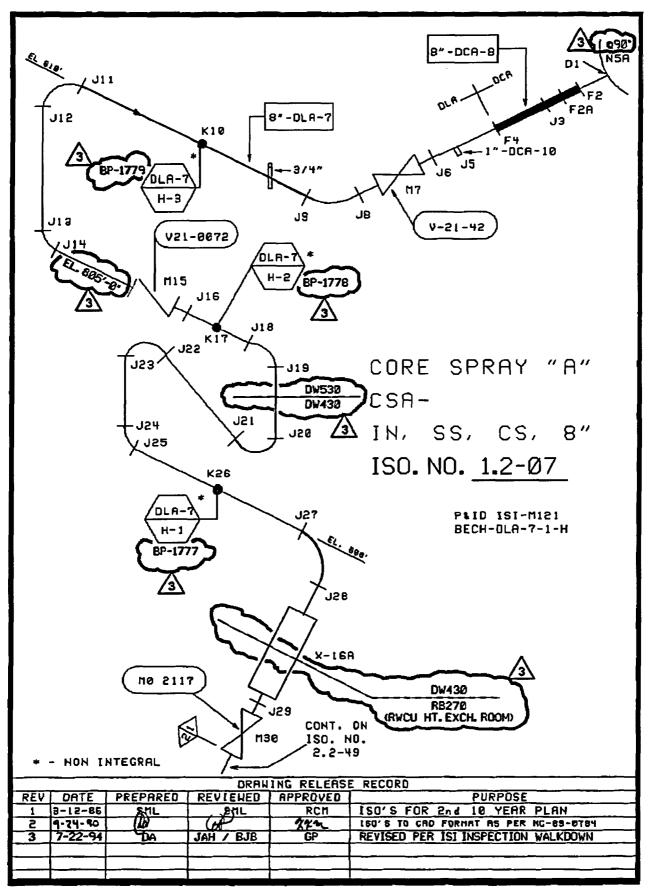
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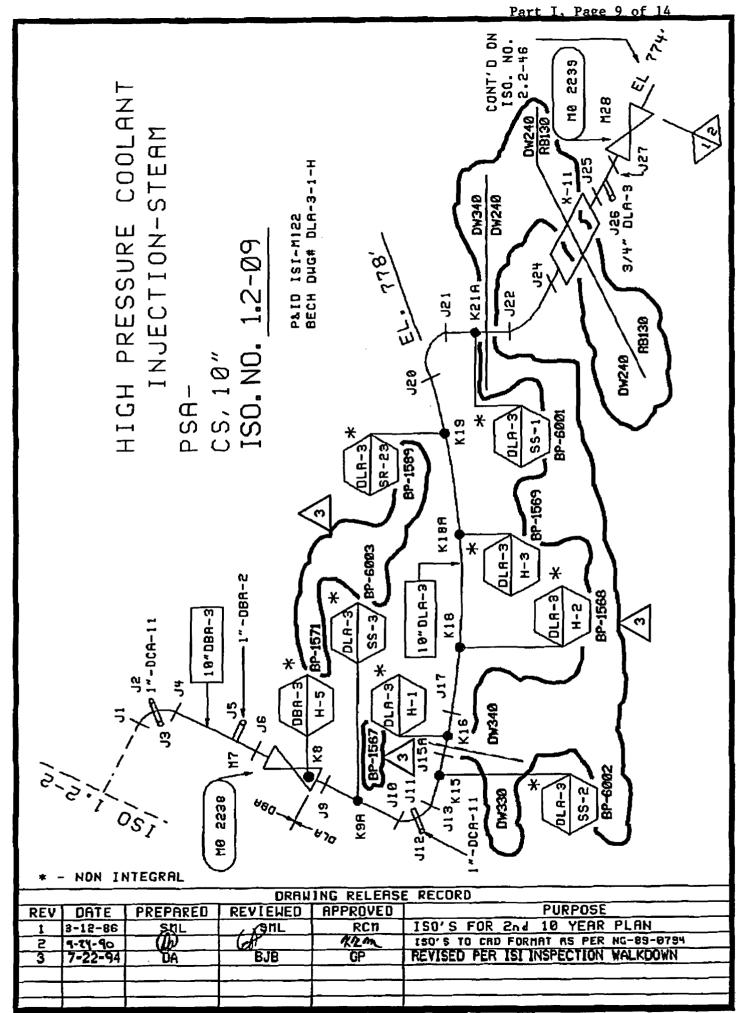


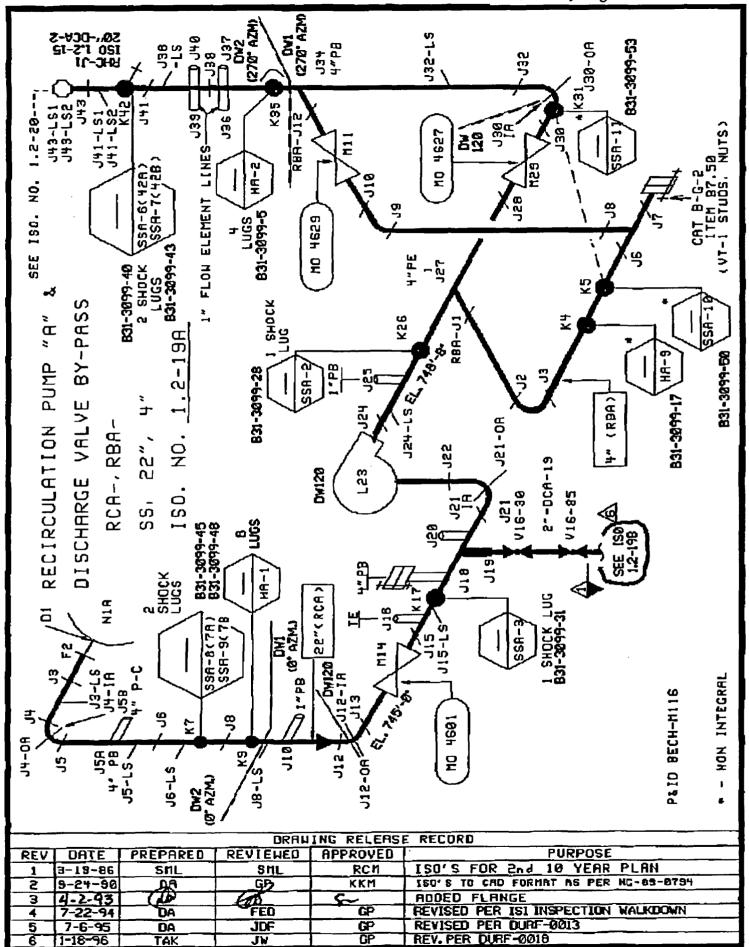


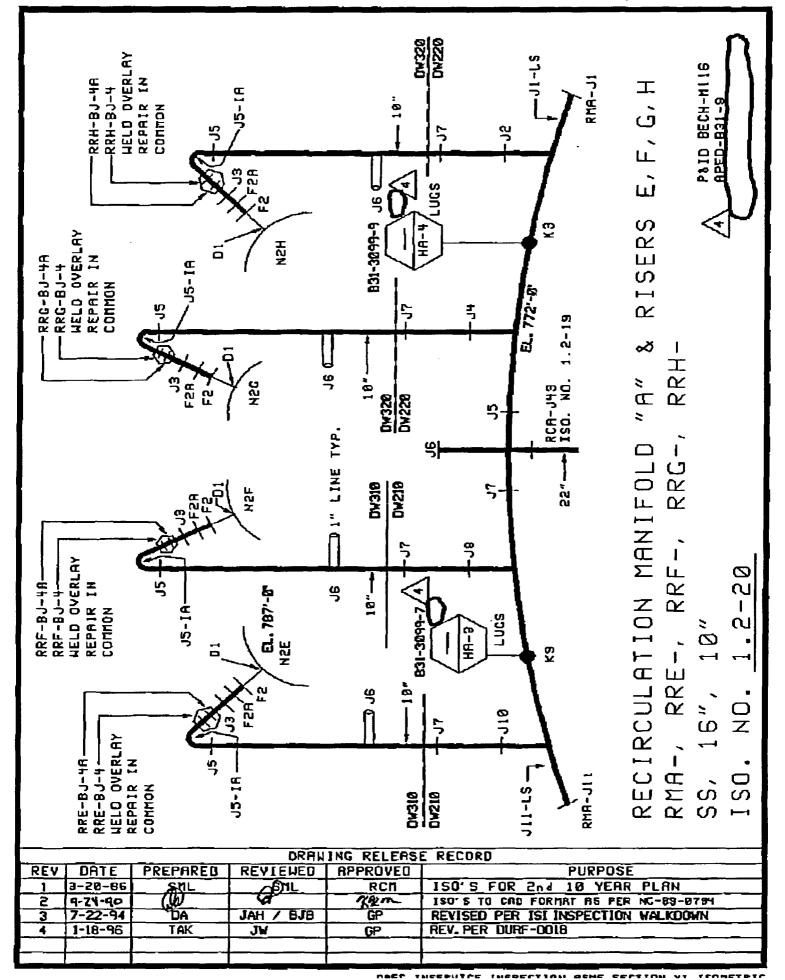


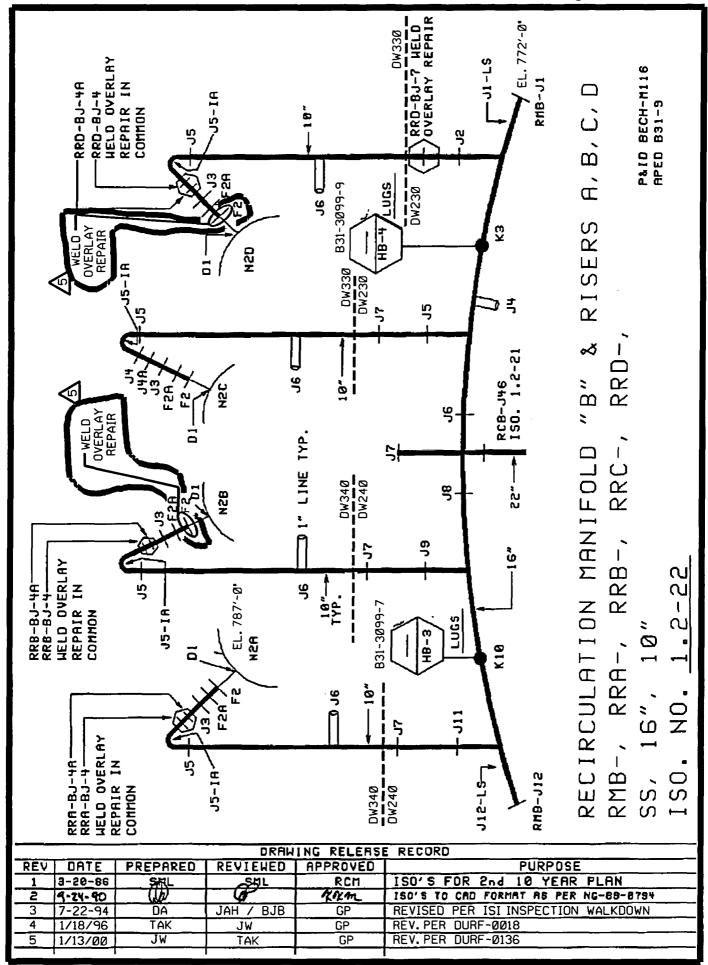


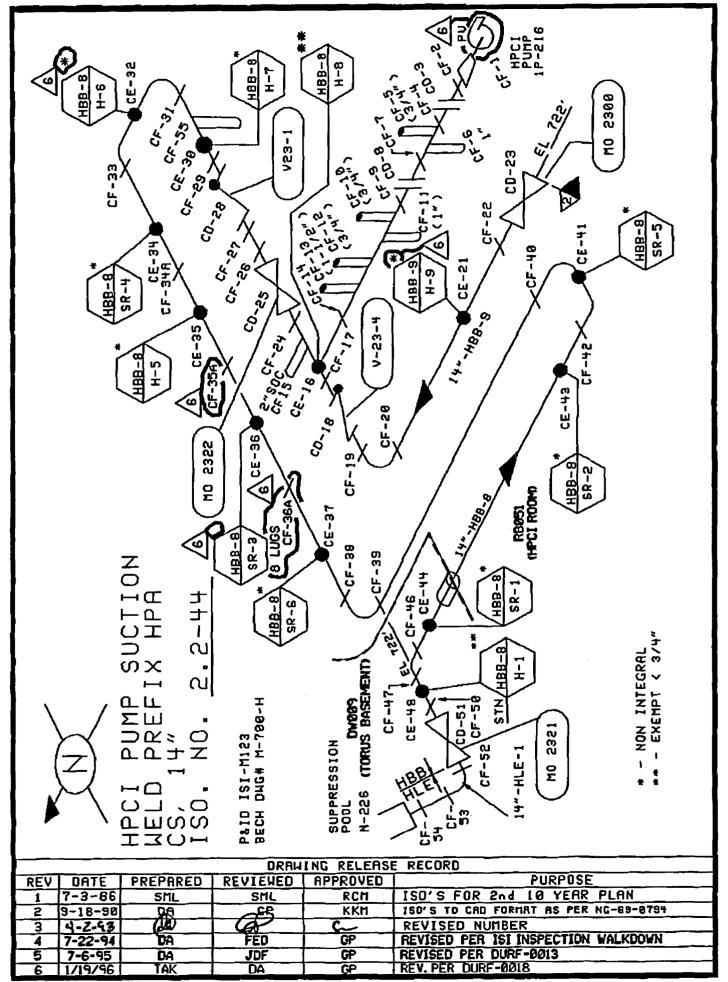
DAEC INSERVICE INSPECTION ASME SECTION XI ISOMETRIC

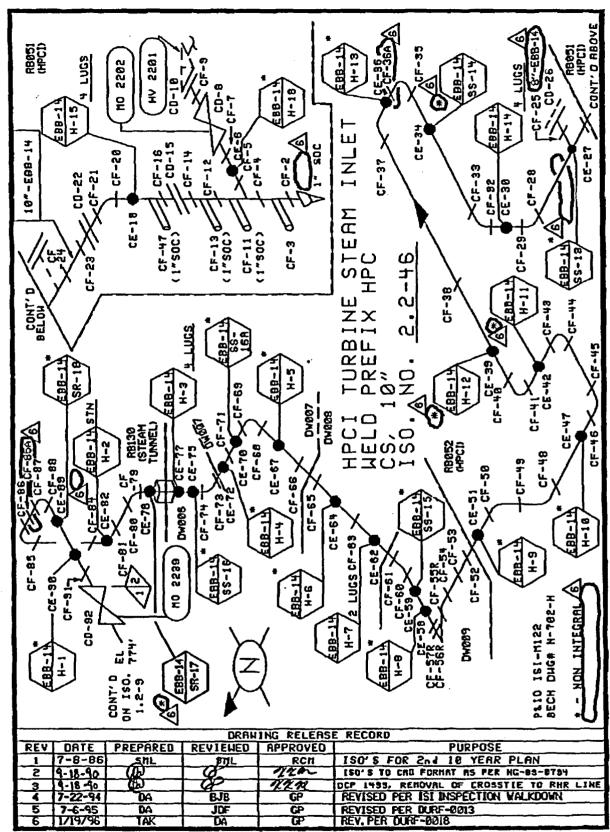












DREC INSERVICE INSPECTION ASHE SECTION XI ISOMETRIC

Part J, page 1 of 4

Owners: Interstate Power and Light Company, 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: 614 MWE

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

(Those percentages shown are actual, where the percentages exceed the allowable only the maximum (50% for period one and at least 16% for period two) will be taken credit for).

		CI	ASS 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%	50%	0%	
B1.22	15	0%	0%	0%	
B1.30	1	50%	50%	0%	See Note 7
B1.40	1	33%	67%	0%	
B1.51	1	0%	0%	0%	
B3.90	33	48%	73%	0%	See Note 1,8
B3.100	33	48%	73%	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%	71%	0%	See Note 8 and 11
B5.20	8	38%	63%	0%	See Note 11
B5.130	8	38%	63%	0%	See Note 11
B5.140	2	0%	50%	0%	See Note 11
B6.10	60	33%	67%	0%	
B6.20	56	29%	64%	0%	•
B6.30	4	100%	100%	0%	
B6.40	60	33%	67%	0%	•
B6.50	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%	67%	0%	
B7.50	5	20%	20%	0%	See Note 3
B7.60	2	0%	0%	0%	See Note 3
B7.70	47	4%	6%	0%	See Note 3
B7.80	89	15%	15%	0%	See Note 3
B9.11	94	22%	33%	0%	See Note 11
B9.12	0	0%	0%	0%	See Note 6 and 11
B9.21	9	22%	22%	0%	See Note 11
B9.31	6	17%	33%	0%	See Note 11
B9.32	1	0%	0%	0%	See Note 11
B9.40	23	22%	40%	0%	See Note 11
B10.10	1	0%	0%	0%	See Note 4
B10.20	3	33%	67%	0%	See Note 4

#### THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

May 28, 2001 through April 20, 2003

Part J, page 2 of 4

1) Owners: Interstate Power and Light Company, an Alliant Company

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

P.O. Box 351 Cedar Rapids, IA. 52406

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: 614 MWE

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

CLASS 1					
ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	<b>REMARKS</b>
B10.30	1	0%	0%	0%	See Note 4
B12.20	2	0%	0%	0%	
B12.50	45	6%	9%	0%	See Note 3
B13.10	35	37%	63%	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 1 AND CLASS 2 Risk Informed

<u>ITEM NO.</u>	TOTAL #	PERIOD 1	PERIOD 2	PERIOD 3	<u>REMARKS</u>
R-I	70	0%	33%	0%	See Note 11

CLASS 2					
ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	<u>REMARKS</u>
C1.10	2	50%	50%	0%	
C1.20	1	0%	100%	0%	
C2.21	2	0%	50%	0%	
C2.22	2	0%	50%	0%	
C3.10	1	0%	0%	0%	See Note 4
C3.20	7	29%	57%	0%	See Note 4
C5.51	69	17%	36%	0%	See Note 11
C5.81	1	100%	100%	0%	See Note 11
C7.10	5	N/A	N/A	N/A	Once per period
C7.20	5	N/A	N/A	N/A	Once per interval

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

May 28, 2001 through April 20, 2003

Part J, page 3 of 4

1) Owners: Interstate Power and Light Company,

an Alliant Company

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Humbolt, IA.

P.O. Box 351 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: 614 MWE

## STATUS OF WORK FOR THIRD TEN YEAR INTERVAL CLASS 1 AND 2 SUPPORTS

ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	REMARKS
F1.10	42	33%	64%	0%	See Note 5
F1.20	52	27%	58%	0%	See Note 5
F1.40	20	40%	65%	0%	See Note 5

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

CLASS MC					
ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	REMARKS
E1.11	3	33%	67%	0%	
E1.12	31	19%	55%	0%	
E1.20	8	38%	75%	0%	
E4.11	2	0%	40%	0%	See Note 9
E5.30	4	25%	50%	0%	
E8.10	14	29%	57%	0%	
E9.20	*	N/A	N/A	N/A	See Note 10

## THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

May 28, 2001 through April 20, 2003

Part J, page 4 of 4

 Owners: Interstate Power and Light Company, an Alliant Company
 P.O. Box 351
 Cedar Rapids, IA. 52406 Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

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

3) Plant Unit: #1

f) 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: 614 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 is 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, B12.50

  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 BWRVIP-75.
- 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.

NOTE 11 - Item Numbers B5.XX, B9.XX, C5.XX, and R-I

Risk-Informed methods are utilized as described in EPRI TR-112657B-A to determine scope of inspections for examination categories B-F, B-J, and C-F-2. The Risk-Informed scope has been combined into a new item number R-I for implementation in the second and third periods of the third interval.

Part K, page 1 of 1

 Owners: Interstate Power and Light Company, 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: 614 MWE

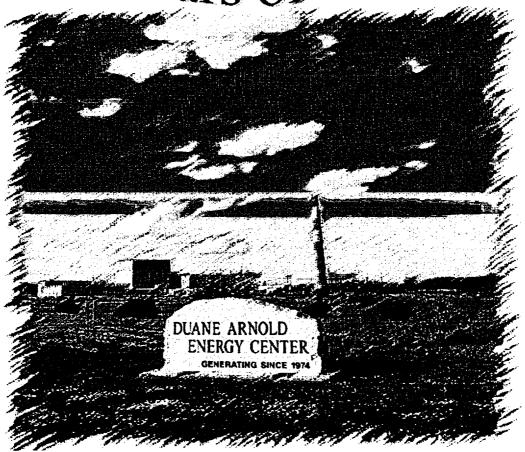
#### **RELIEF REQUESTS**

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

RELIEF REQUESTS	<u>DESCRIPTION</u>
NDE-R011	Use of Existing Calibration Blocks as an alternative
NDE-R012	Alternative Examination of Class 1 and 2 piping longitudinal seam welds
NDE-R014	Exemption from Appendix III calibration block notch dimensions
NDE-R015 Rev. 1	Use of the 1992 Addenda of ASME Section XI to govern repairs/replacements
NDE-R035	Alternative Requirements to Required Percentages of Examinations
NDE-R038	Alternative Requirements to VII-4240 "Annual Training"
NDE-R041	Use of the 1992 Edition of ASME Section XI for "Additional Examinations"
PR-002	Alternative Testing for Class2 Pressure Retaining Containment Penetrations
	connected to non-safety related piping systems
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
MC-R004	Preservice Examination of Reapplied Paint or Coatings
MC-R005	Visual Examination of Painted or Coated Containment Components Prior to
	Removal of Paint of Coatings
MC-R006	Successive examinations of Repaired Areas
CODE CASE #	<u>DESCRIPTION</u>
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-I008)	Alternative rules for examination of Class 1, 2, 3 and MC component supports
N-508-1 (NDE-R033)	Rotation of Serviced Snubbers and Pressure Relief Valves for the Purpose of
	Testing
N-516-1 (NDE-R042)	Underwater Welding
N-546 (PR-008)	Alternative requirements for Qualification of VT-2 Examination Personnel
N-598 (NDE-R035)	Alternative Requirements to Required Percentages of Examinations

Attachment 2 to NG-03-0509
ASME Section XI Summary Report
Duane Arnold Energy Center
Refueling Outage 18 (Period 3)

25 Years of



Rock Solid Performance

ASME Section XI Summary Report

Duane Arnold Energy Center

Refueling Outage 18

(Period 3)

### **DUANE ARNOLD ENERGY CENTER**

UNIT #1 PALO, IOWA

Commercial Service Date: February 1, 1975

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION SUMMARY REPORT

March 31, 2003 through April 20, 2003

Dated: April 20, 2003

OWNER:

**ALLIANT ENERGY** 

P.O. Box 351

Cedar Rapids, Iowa 52406

Prepared by:	ASME Section XI Administrator	Date: 7/16/2003
Reviewed by:	NDE Level III	Date: 7-16-03
Reviewed by:	Program Engineering Staff	Date: <u>2-/6-03</u>
Reviewed by:	<u>Fauly Markus</u> for Equipment Reliability Supervisor	Date: <u>7/16/03</u>
Concurred by:	Program Engineering Manager	Date:

# TABLE OF CONTENTS

<u>PART</u>	DESCRIPTION	PAGE NO.
A	Form NIS-1	Pages 1-2
В	Certificate of Inservice Inspection	Pages 1-3
C	Abstract	Page 1
D	Table of Component and Weld Examination Identification Records	Pages 1-4
E	Table of Additional and Successive Examinations Identification Records	Page 1
F	Abstract of ASME Section XI Repairs and Replacements	Page 1
G	Form NIS-2's	Page 1
H	Abstract of Conditions Noted and Corrective Measures Taken	Page 1
I	ISI Figures and Isometrics	Pages 1-52
J	Status of Work for Third Ten Year Interval	Pages 1-4
K	Listing of Relief Requests and Code Cases Utilized	Page 1

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

vner: Interstate Power and Light Company, an Alliant Co., P.O. Box 351, Cedar Rapids, IA 52406 *
(Name and address of Owner)
ant: Duane Arnold Energy Center, 3277 DAEC Road, Palo, IA 52324
(Name and Address of Plant)
ant Unit1 4. Owner Certificate of Authorization (if required)N/A
ommercial Service Date 02/01/75 6. National Board Number of Unit N/A
omponents 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), Part G (P1), Part H (P1), Part I (PP1-52), 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 1-3, of thi	s report for a contir	luation of compone	nts examined
			•	
÷ ,:				

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.

(12/82) This form (E00029) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y 10010

Part A, Page 2 of 2

# FORM NIS-1 (back)

8. Examination Dates 3/31/03 to 4/20/03 9. Inspection Interval from 11/01/96 to 11/01/05

10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval.
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 correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.
Date July 17 2003  Signed War Curtlan By Dean Curtlened - Engineering Director
Signed War Curllan By Dean Curtbonel - Engineering Director
Certificate of Authorization No. (if applicable) Expiration Date
CERTIFICATE OF INSERVICE INSPECTION
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of <u>Iowa</u> and employed by <u>HSB CT</u> of <u>Hartford CT</u> have inspected the components described in this Owner's Data Report during the period 3/31/03 to 04/20/03, 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 Data Report in accordance with the requirements of the ASME Code, Section XI.
By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Data Report. Furthermore, neither the Inspector, nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Date 7-17 2003.
Inspector's Signature National Board, State, Province and No. 1/17/23
•

<sup>\*</sup> Note - Other owners are Central Iowa Power Cooperative and Corn Belt Power Cooperative.

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

March 31, 2003 through April 20, 2003

Part B, page 1 of 3

Owners: Interstate Power and Light Company,

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

Corn Belt Power Cooperative

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

National Board Number of Unit: N/A

Gross Generating Capacity: 614 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

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

March 31, 2003 through April 20, 2003

Part B, page 2 of 3

 Owners: Interstate Power and Light Company, 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: 614 MWE

### **CERTIFICATE OF INSERVICE INSPECTION**

### COMPONENTS EXAMINED:

CLASS 1					
Component	Iso No				
Vessel Stud and Ligament	1.1-05				
Main Steam	1.2-01/-02				
Feedwater	1.2-05				
Core Spray	1.2-08				
High Pressure Coolant Injection	1.2-09				
Reactor Water Cleanup	1.2-11 <i>A</i>				
CRD Return	1.2-12A				
Residual Heat Removal	1.2-15				
Recirculation System	1.2-19A/-19B/-20/-21E				
Head Vent	1.2-24				
Standby Liquid Control	1.2-23				
Recirculation Pump	1.3-03				

Component	Iso No
Top Head Assembly	VS-1-6
Core Spray Bracket	VS-1-26
Feedwater	VS-1-27
Guide Rod Bracket	VS-1-28
Steam Dryer Support Brackets	VS-1-29
Steam Dryer Hold-Down Brackets	VS-1-30
Surveillance Specimen Bracket	VS-1-31

IVVI

Part B, page 3 of 3

 Owners: Interstate Power and Light Company, 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: 614 MWE

### **CERTIFICATE OF INSERVICE INSPECTION**

# COMPONENTS EXAMINED:

IVVI	
Component	Iso No
Jet Pump Riser Support Pad	VS-1-34
Shroud Support Assembly	VS-2-10
Ledge Segment Plates	VS-2-11
Core Plate	VS-3-2
Per. Fuel Support	VS-3-9
Top Guide	VS-4-1
Sample Holder	VS-10-2
CRD Guide Tube	VS-12-4

CLASS 2				
Component	Iso No			
RHR Heat Exchanger	2.1-01			
Residual Heat Removal	2.2-32/-33/-36/- 37A/-39/-41/-43			
High Pressure Coolant Injection	2.2-44/-45/-46			
Core Spray	2.2-49/-52B			
Main Steam	2.2-53/-55/-57			
Scram Discharge	2.2-60/-61			
Reactor Core Isolation Cooling	2.2-62			

Part C, page 1 of 1

 Owners: Interstate Power and Light Company, an Alliant Company Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

Marion, IA.

P.O. Box 351 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: 614 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 March 31, 2003 through April 20, 2003. The specific details and associated records of the examinations are on file at Interstate Power and Light Company.

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

March 31, 2003 through April 20, 2003

Part D, page 1 of 4

 Owners: Interstate Power and Light Company, an Alliant Company

eany, Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Humbolt, IA.

P.O. Box 351 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: 614 MWE

### COMPONENT AND WELD EXAMINATION IDENTIFICATION RECORDS

			CLASS 1			
		ISI			ASME XI	
Component	Description	Report	Examination	ISI Iso	Category	Results
RPV Stud/Nut	CLSR HD-LGMNTS	I03002	UT	1.1-05	B-G-1	Accepted
and Ligaments	(41-60)					
	CLSR HD-NUTS	I03002	VT-1	1.1-05	B-G-1	Accepted
	(41-60)					
	CLSR HD-STUDS	103002	UT	1.1-05	B-G-1	Accepted
	(41-60)					
	CLSR HD-WSHRS	I03002	VT-1	1.1-05	B-G-1	Accepted
	(41-60)		· <del></del>			
Main Steam	CV4413-BOLTING	103117	VT-1	1.2-01	B-G-2	Accepted
	CV4413	I03116	VT-3	1.2-01	B-M-2	Accepted
	MSA-K011B	I03003	VT-3	1.2-01	F-A	Accepted
	MSB-K019	I03004	VT-3	1.2-02	F-A	Accepted
Feedwater	FWB-K020A	I03010	VT-3	1.2-05	F-A	Accepted
Core Spray	CSB-K010	I03018	VT-3	1.2-08	F-A	Accepted
High Pressure	PSA-K018	I03020	VT-3	1.2-09	F-A	Accepted
Coolant Injection						
Reactor Water	CUA-K013AA	I03021	VT-3	1.2-11A	F-A	Accepted
Cleanup						
	CUA-K014A	I03022	VT-3	1.2-11A	F-A	Accepted
CRD Return	CRA-K026	I03032	VT-3	1.2-12A	F-A	Accepted
RHR	RHC-K008A	I03033	VT-3	1.2-15	F-A	Accepted
	RHC-K013	I03034	VT-3	1.2-15	F-A	Accepted
						By Evaluation
						CE0670 &
<del></del>						CE00707)
Recirculation	RCA-K009	103039	PT	1.2-19A	В-К	Accepted
System	D.G. 17000	***				
	RCA-K009	I03039	VT-3	1.2-19A	F-A	Accepted
	RDA-K017	I03040	VT-3	1.2-19B	F-A	Accepted
	RMA-K009	I03042	VT-3	1.2-20	F-A	Accepted
	RDB-K022	I03055	VT-3	1.2-21B	F-A	Accepted
Head Vent	HVA-FLG-BOLTING	I03056	VT-1	1.2-24	B-G-2	Accepted
SBLC	LCA-K007A	I03061	VT-3	1.2-27	F-A	Accepted
Recirculation	RPB-K001	I03062	VT-3	1.3-03	F-A	Accepted
Pump						
	RPB-K001 (LUGS)	103062	PT	1.3-03	B-K	Accepted
	RPB-K006	103063	VT-3	1.3-03	F-A	Accepted

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

March 31, 2003 through April 20, 2003

Part D Page 2 of 4

 Owners: Interstate Power and Light Company, 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: 614 MWE

### COMPONENT AND WELD EXAMINATION IDENTIFICATION RECORDS

			CLASS 1			
		ISI		·	ASME XI	
Component	Description	Report	<b>Examination</b>	ISI Iso	Category	Results
Reactor Vessel Internals	VESSEL HEAD	103064	VT-3	VS-1-6	B-N-1	Accepted
	CSB WELDS-150°	103064	VT-3	VS-1-26	B-N-2	Accepted
	FWB WELDS-SE45*	103064	VT-3	VS-1-27	B-N-2	Accepted
	FWB WELDS-SW135*	103064	VT-3	VS-1-27	B-N-2	Accepted
	GRB WELDS-0° AZ	I03064	VT-3	VS-1-28	B-N-2	Accepted
	GUIDE ROD BRT(0)	103064	VT-3	VS-1-28	B-N-1	Accepted
	DSB-135*	103064	VT-3	VS-1-29	B-N-2	Accepted
	DSB-45°	I03064	VT-3	VS-1-29	B-N-2	Accepted
	DHB-149°	103064	VT-3	VS-1-30	B-N-2	Accepted
	DHB-31°	103064	VT-3	VS-1-30	B-N-2	Accepted
	SH WELDS-108°-LW	I03064	VT-1	VS-1-31	B-N-2	Accepted
	SH WELDS-108°-UP	103064	VT-3	VS-1-31	B-N-2	Accepted
	SH WELDS-36°-LW	I03064	VT-1	VS-1-31	B-N-2	Accepted
	SH WELDS-36°-UP	103064	VT-3	VS-1-31	B-N-2	Accepted
	JPR-SUPP PAD-108°	<b>I03064</b>	VT-1	VS-1-34	B-N-2	Accepted
	JPR-SUPP PAD-216°	103064	VT-1	VS-1-34	B-N-2	Accepted
	SHROUD LEDGE (180-360)	103064	VT-3	VS-2-10	B-N-2	Accepted
	SHROUD LEDGE (180-360)	I03064	VT-3	VS-2-11	B-N-1	Accepted
	CORE PLATE	103064	VT-3	VS-3-2	B-N-1	Accepted
	CSS-FUEL SUPP CAST	103064	VT-3	VS-3-9	B-N-2	Accepted
	CSS-TOP GUIDE	103064	VT-3	VS-4-1	B-N-2	Accepted
•	SAMPLE HLDR-108°	103064	VT-3	VS-10-2	B-N-1	Accepted
	CSS-CR GUIDE TUBE	I03064	VT-3	VS-12-4	B-N-2	Accepted

CLASS 1 PRESSURE TESTS							
		ISI			ASME XI		
Component	Description	Report	Examination	ISI Iso	Category	Results	
Class 1 System	Leakage Test	I03001	VT-2	ISINO-P	B-P	Accepted	

Part D Page 3 of 4

Owners: Interstate Power and Light Company, an Alliant Company

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

P.O. Box 351

Cedar Rapids, IA. 52406

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: 614 MWE

### COMPONENT AND WELD EXAMINATION IDENTIFICATION RECORDS

CLASS 2						
ISI ASME XI						
Component	Description	Report	Examination	ISI Iso	Category	Results
Residual Heat Removal Heat	HEA-CA-1	I03065	UT	2.1-01	C-A	Accepted
Exchanger						
	HEA-CB-2	103066	MT UT	2.1-01	С-В	Accepted Accepted
	HEA-CB-2 (Inner Rad)	I03066	UT	2.1-01	С-В	Accepted
	HEA-CC-7	I03067	MT	2.1-01	C-C	Accepted
			VT-3	2.1-01	F-A	Accepted
	HEA-CC-8 (04)	<b>I03068</b>	VT-3	2.1-01	F-A	Accepted
Residual Heat Removal	RHA-CE009	103069	MT VT-3	2.2-32	C-C F-A	Accepted Accepted
	RHA-CE027	I03070	VT-3	2.2-32	F-A	Accepted
	RHB-CE050	I03071	VT-3	2.2-33	F-A	Accepted By Evaluation (AR CA026894)
	RHE-CE036	103072	VT-3	2.2-36	F-A	Accepted
	RHF-CE078	103073	VT-3	2.2-37A	F-A	Accepted
	RHI-CE052	<b>I03074</b>	VT-3	2.2-39	F-A	Accepted
	RHK-CE008A	I03075	VT-3	2.2-41	F-A	Accepted
	RHM-CE005	103076	VT-3	2.2-43	F-A	Accepted
High Pressure Coolant Injection	HPA-CE016	103077	VT-3	2.2-44	F-A	Accepted
-	HPB-CE013	103079	VT-3	2.2-45	F-A	Accepted
	HPB-CE072	103080	VT-3	2.2-45	F-A	Accepted
	HPC-CE059	<b>I030</b> 81	VT-3	2.2-46	F-A	Accepted

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

March 31, 2003 through April 20, 2003

Part D Page 4 of 4

 Owners: Interstate Power and Light Company, 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: 614 MWE

### COMPONENT AND WELD EXAMINATION IDENTIFICATION RECORDS

CLASS 2						
	ISI			ASME XI		
Component	Description	Report	Examination	ISI Iso	Category	Results
Core Spray	CSB-CE029	103083	VT-3	2.2-49	F-A	Accepted
			MT		C-C	Accepted
	CSB-CE064	103084	VT-3	2.2-49	· F-A	Accepted
	CSE-CE049A	I03085	VT-3	2.2-52B	F-A	Accepted
Main Steam	MSA-CE025	I03086	VT-3	2.2-53	F-A	Accepted
	MSC-CE029	103087	VT-3	2.2-55	F-A	Accepted
	MSE-CE033	103088	VT-3	2.2-57	F-A	Accepted
Scram Discharge	SDS-CE001A	103089	VT-3	2.2-60	F-A	Accepted
	SDN-CE001A	103090	VT-3	2.2-61	F-A	Accepted
Reactor Core	RCB-CE006	I03091	VT-3	2.2-62	F-A	Accepted
Isolation Cooling			MT		C-C	Accepted
	RCB-CE008	I03092	VT-3	2.2-62	F-A	Accepted

CLASS 2 PRESSURE TESTS							
		ISI			ASME XI		
Component	Description	Report	Examination	_ISI ISO	Category	Results	

# THERE WERE NO CLASS 2 PRESSURE TESTS PERFORMED DURING THE THIRD PERIOD FOR THIS OUTAGE.

IWE COMPONENTS						
ISI Exam ASME XI						
Component	Description	Report	Method	ISI ISO	Category	Results
Drywell	DRYWELL STAB #6	I03110	VT-3	N/A	E-A	Accepted
	DRYWELL STAB #6	I03110	VT-1	N/A	E-G	Accepted
	(Bolting)					
	DW INT 742'-757' SW	I03108	VT-3	N/A	E-A	Accepted
	DW INT 757'-776' SW	<b>I03106</b>	VT-3	N/A	E-A	Accepted
	DW INT 776'-798' NE	I03107	·VT-3	N/A	E-A	Accepted
	MOIST. BAR, 742' SW	I03109	VT-3	N/A	E-D	Accepted
	DW ACCESS HATCH	I03111	VT-1	N/A	E-G	Accepted
	TORUS BAY 15	I03112	VT-1	N/A	E-C	Accepted

Part E, page 1 of 1

Owners: Interstate Power and Light Company, an Alliant Company

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Humbolt, IA.

P.O. Box 351 Cedar Rapids, IA. 52406

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: 614 MWE

### ADDITIONAL EXAMINATION IDENTIFICATION RECORDS

Class 1							
Component	Previous ISI	ISI Report	Examination	ASME XI	Results		
Examined	Report Number	Number		Category			

THERE WERE NO ADDITIONAL EXAMINATIONS PERFORMED DURING THE THIRD PERIOD THIS **OUTAGE** 

#### SUCCESSIVE EXAMINATION IDENTIFICATION RECORDS

Class 1							
Component	Previous ISI	ISI Report	Examination	ASME XI	Results		
. Examined	Report Number	Number		Category			

THERE WERE NO SUCCESSIVE EXAMINATIONS PERFORMED DURING THE THIRD PERIOD THIS **OUTAGE** 

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

March 31, 2003 through April 20, 2003

Part F, page 1 of 1

1) Owners: Interstate Power and Light Company,

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: 614 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, 1992 with the 1992 Addenda (Ref. Relief Request NDE-R015 Rev. 1).

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

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

March 31, 2003 through April 20, 2003

Part G, page 1 of 1

1) Owners: Interstate Power and Light Company, an Alliant Company

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

P.O. Box 351 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: 614 MWE

# Form NIS-2's

THERE ARE NO NIS-2'S INCLUDED IN THIS THIRD PERIOD SUMMARY REPORT. THEY ARE INCLUDED IN THE SECOND PERIOD SUMMARY REPORT.

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

March 31, 2003 through April 20, 2003

Part H, page 1 of 1

Owners: Interstate Power and Light Company, an Alliant Company P.O. Box 351 Cedar Rapids, IA. 52406

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

Piant: 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: 614 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, 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, 1992, 1992 Addenda. Specific details and associated records of additional corrective measures are on file at Duane Arnold Energy Center. The corrective measures addressed were performed during the period of March 31, 2003 through April 20, 2003.

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

March 31, 2003 through April 20, 2003

Part I, page 1 of 52

1) Owners: Interstate Power and Light Company, an Alliant company

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative Humbolt, IA.

P.O. Box 351

Cedar Rapids, IA. 52406

3) Plant Unit: #1

2) Plant: Duane Arnold Energy Center, Palo, IA. 52324 Owners Certificate of Authorization (if required): N/A

5) Commercial Service Date: 02/01/75

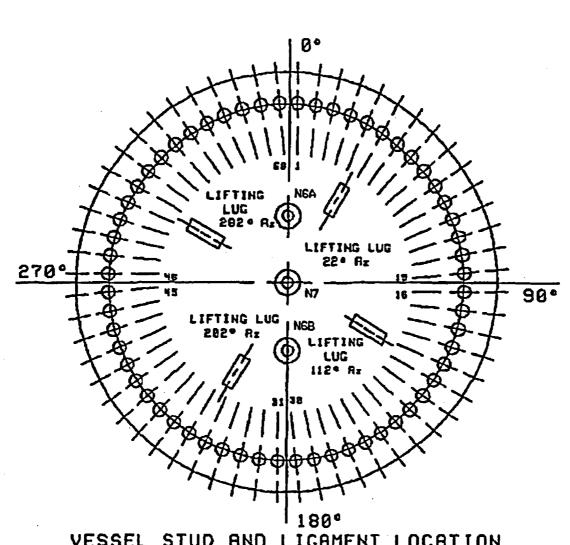
National Board Number of Unit: N/A

Gross Generating Capacity: 614 MWE

# ISI FIGURES AND ISOMETRICS

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

Part I, page 2 of 52

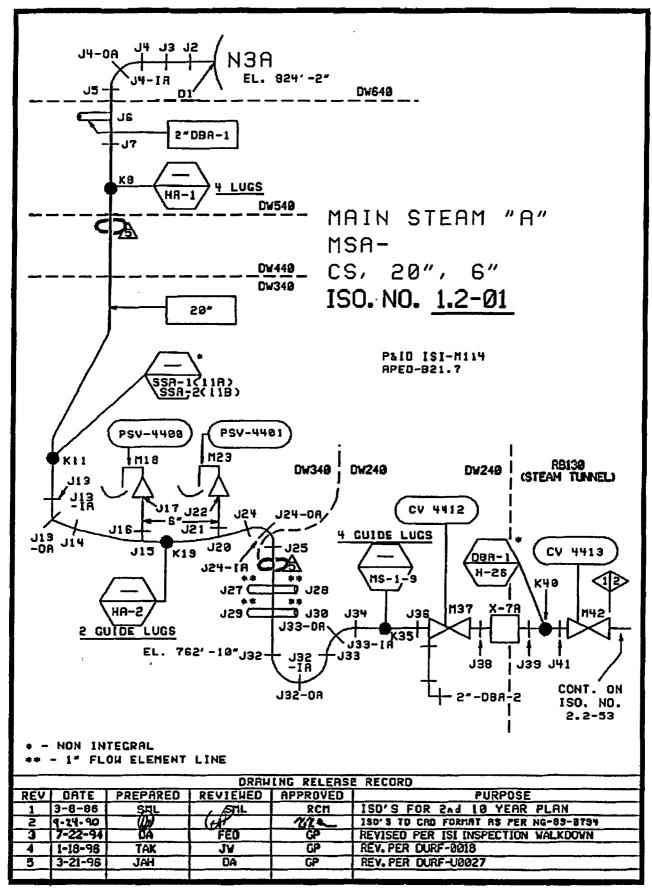


VESSEL STUD AND LIGAMENT LOCATION

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

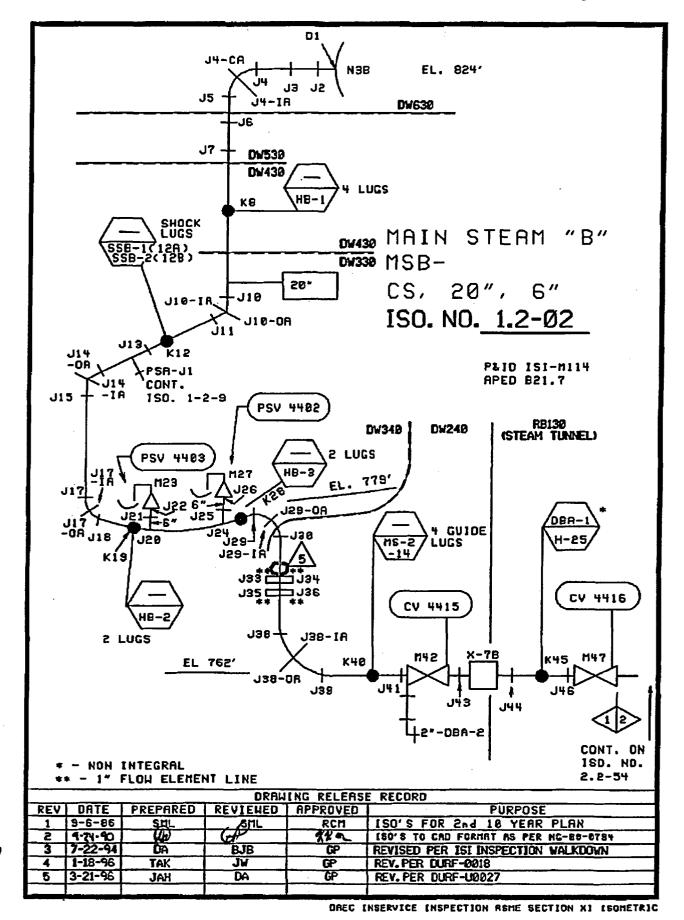
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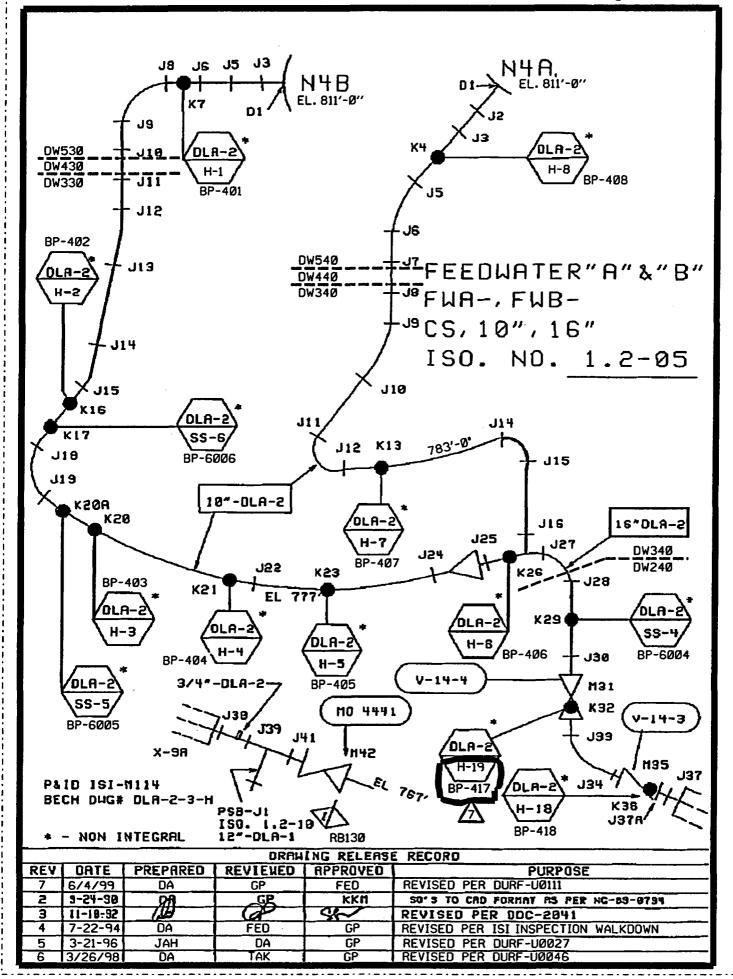
	DRAWING RELEASE RECORD							
REV	DATE	PREPARED	REVIEHED	APPROVED	PURPOSE			
1	38-E-F	SML	SML		ISO'S FOR ENd 10 YEAR PLAN			
2	9-24-98	DA	GP		180'S TO CRD FORMAT AS PER NC-89-6784			
	5-13-41	DA	62	4xx	LEU .B. COSKECLTA LDENULIED FILLMP MAR			
4	7-22-94	DA	FED	GP	REVISED PER ISI INSPECTION WALKDOWN			
5	7-16-95	DA	)DF	4	DELETED DWG PER DURF-013			
6	3/11/96	JAH	TAK	GP	RE-ISSUED PER DURF-0025			

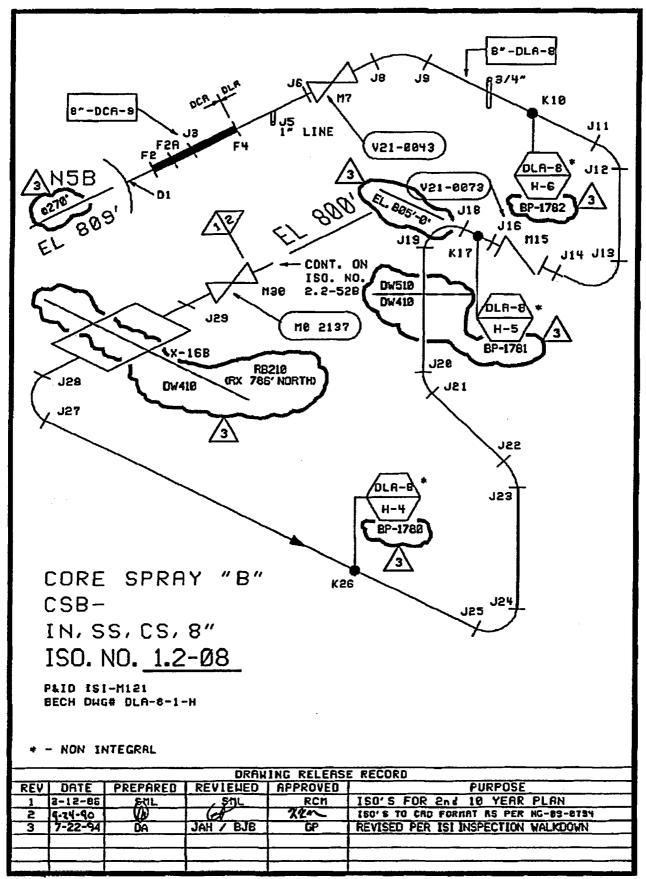


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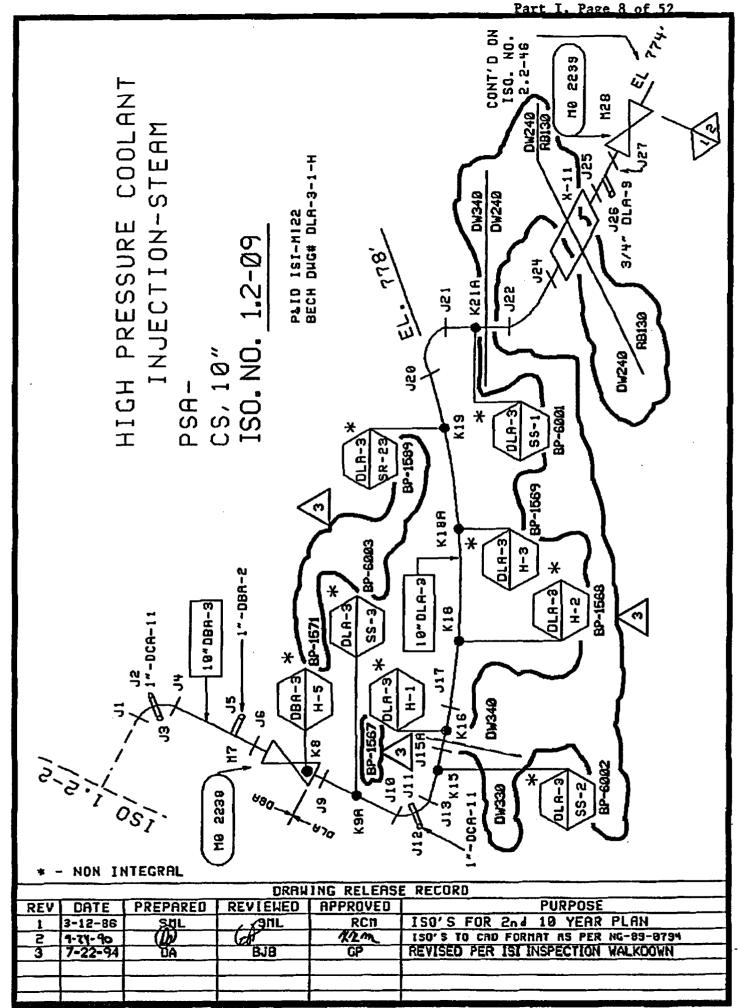


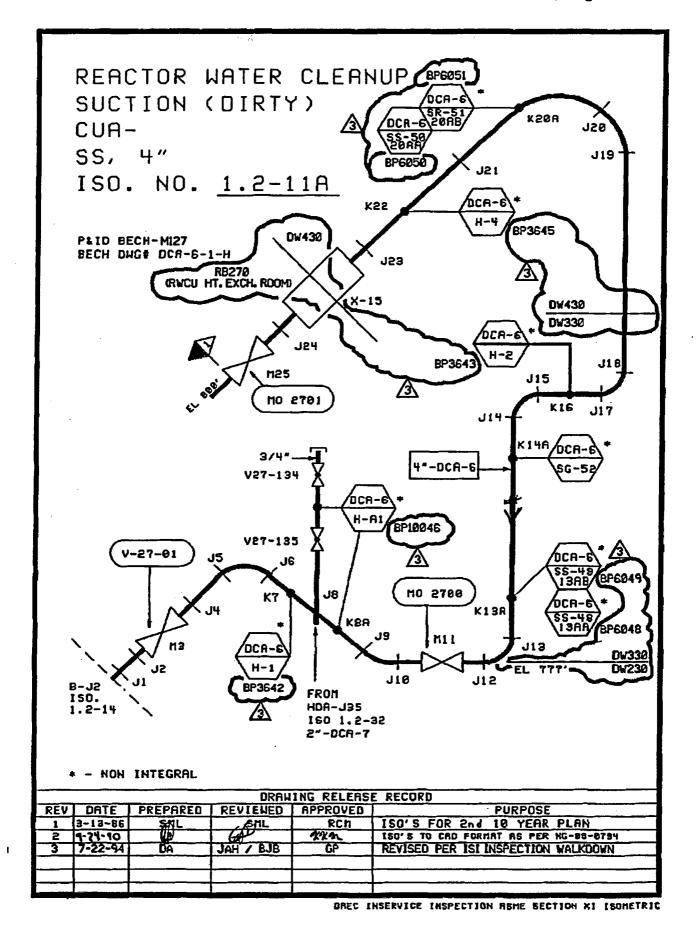


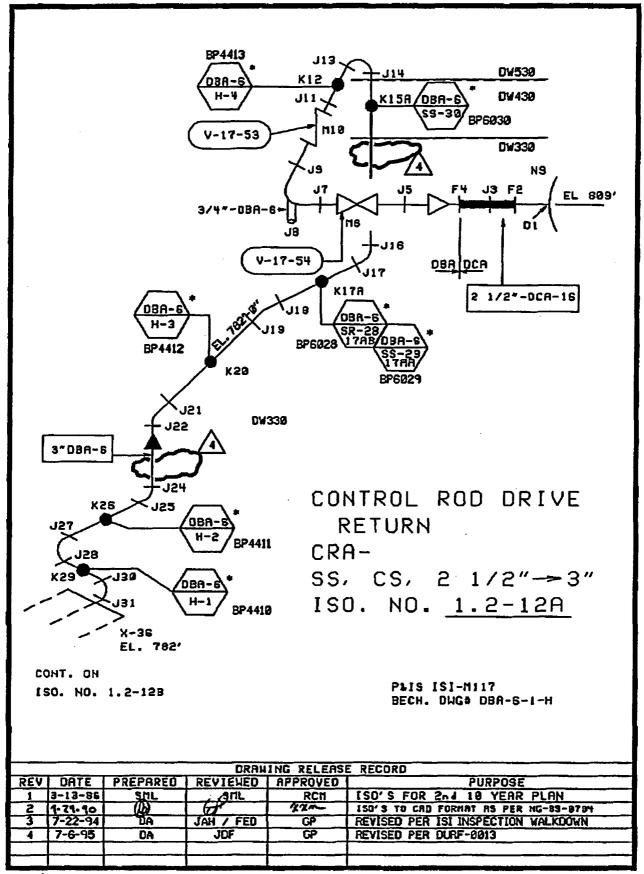


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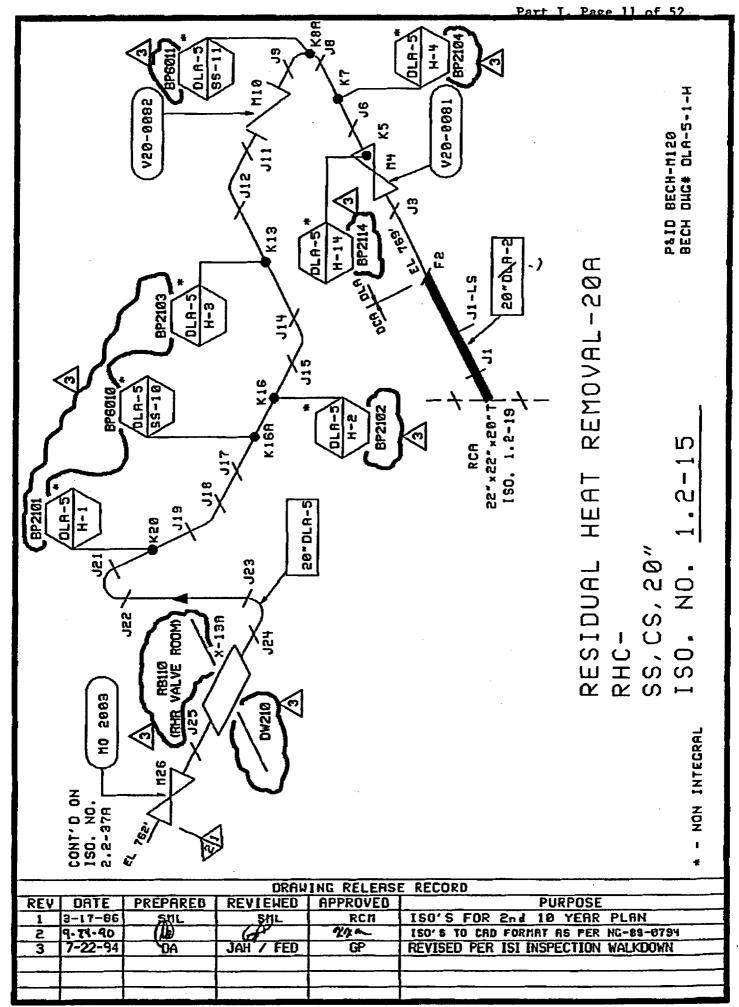
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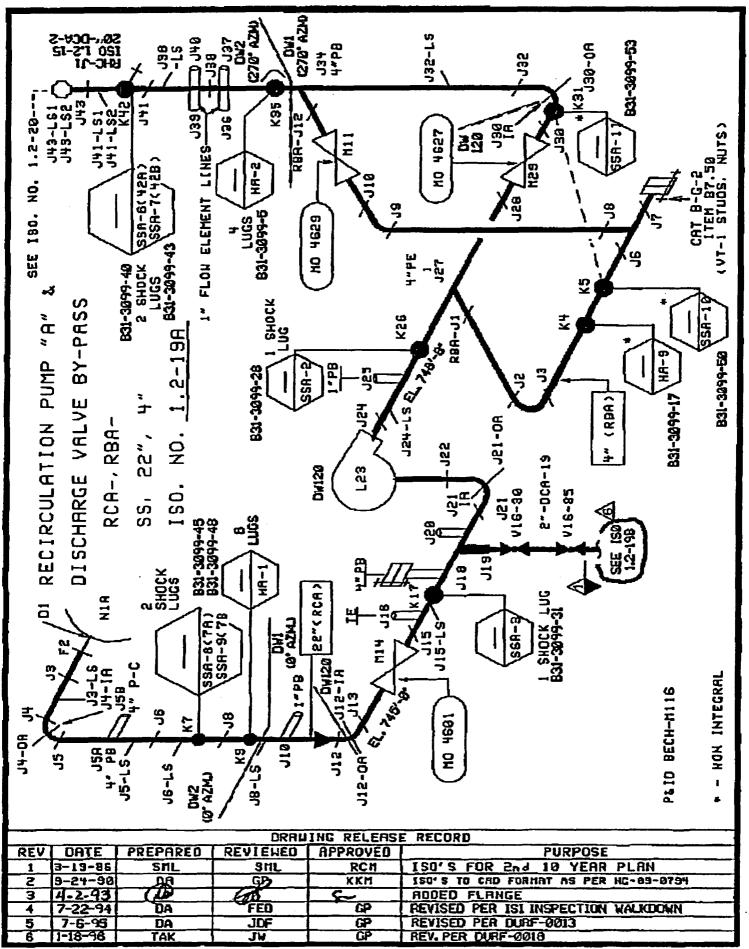


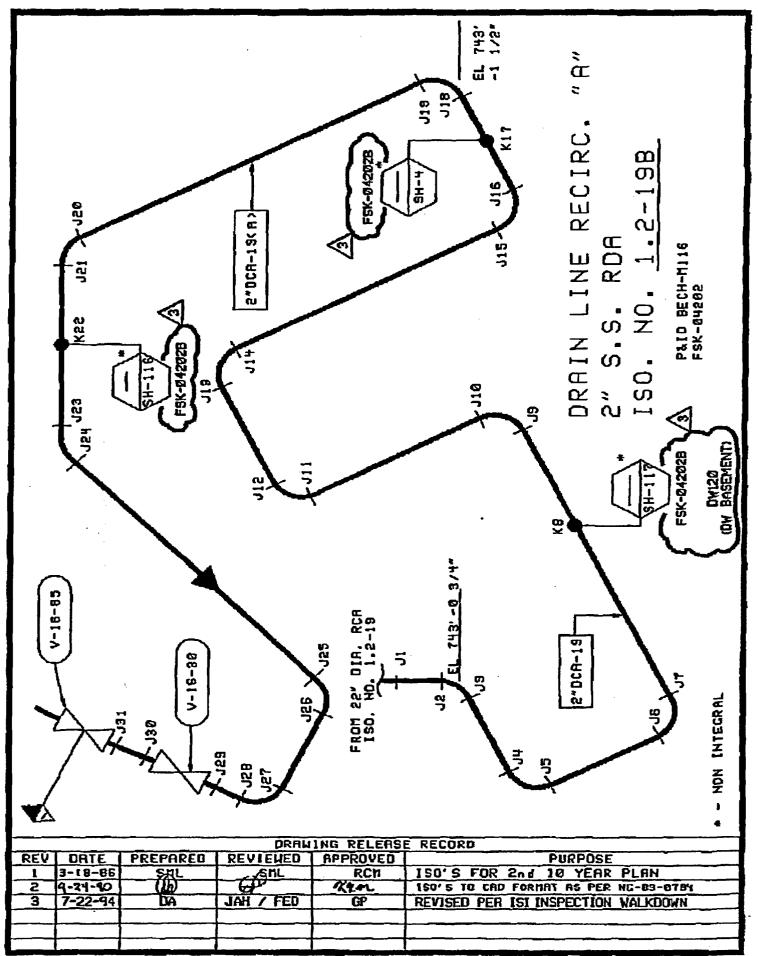




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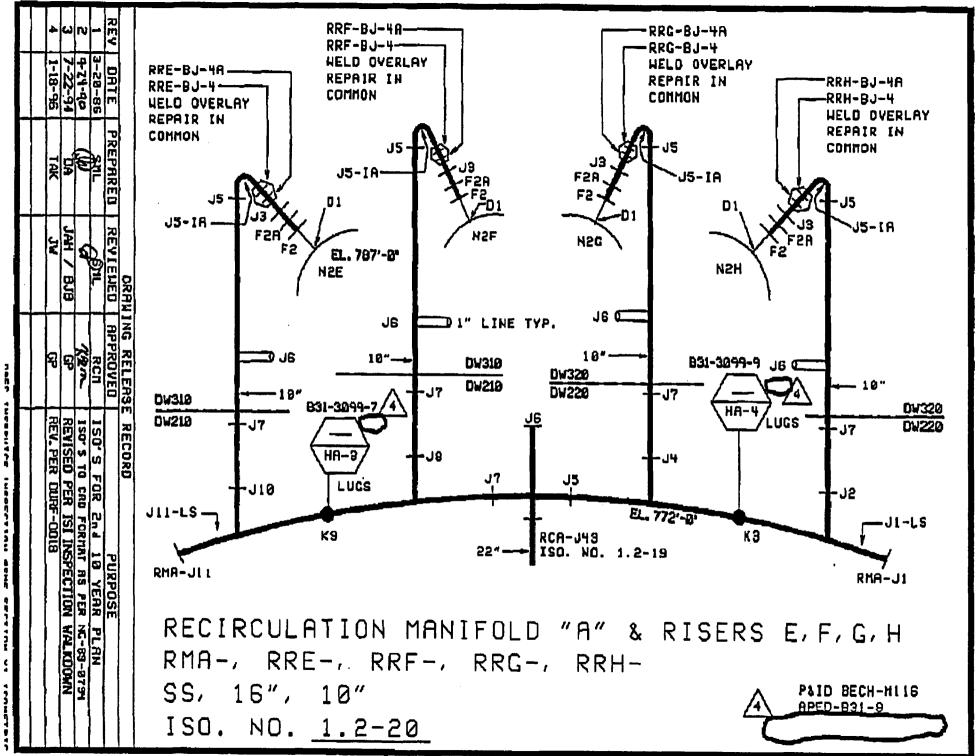


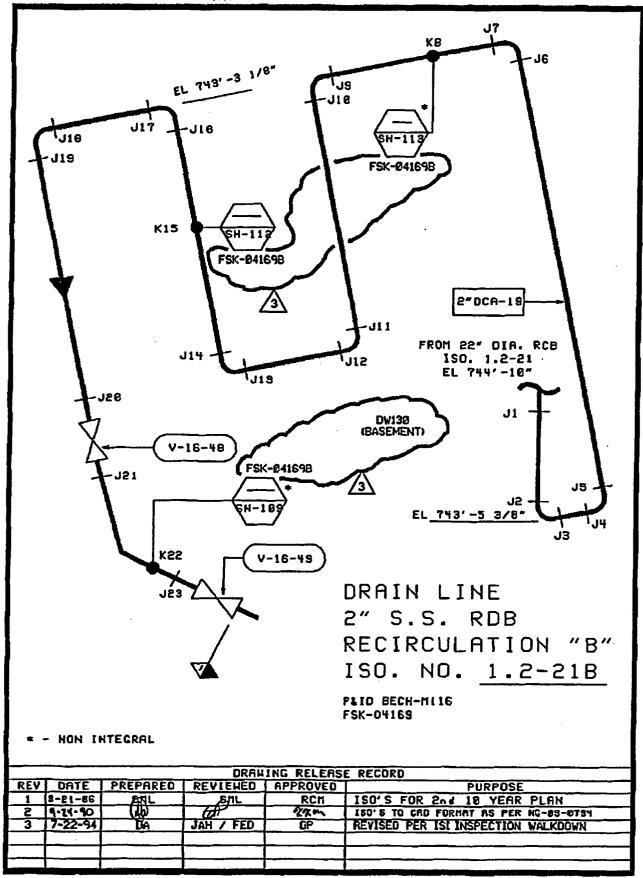




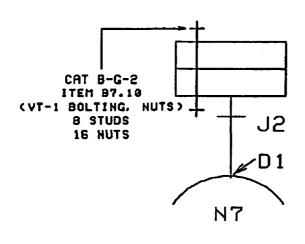
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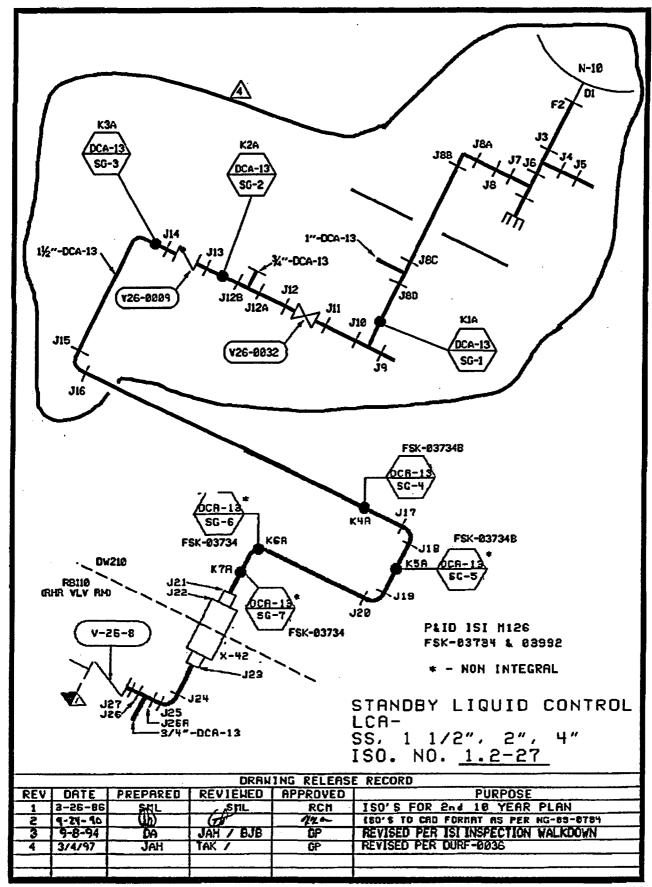




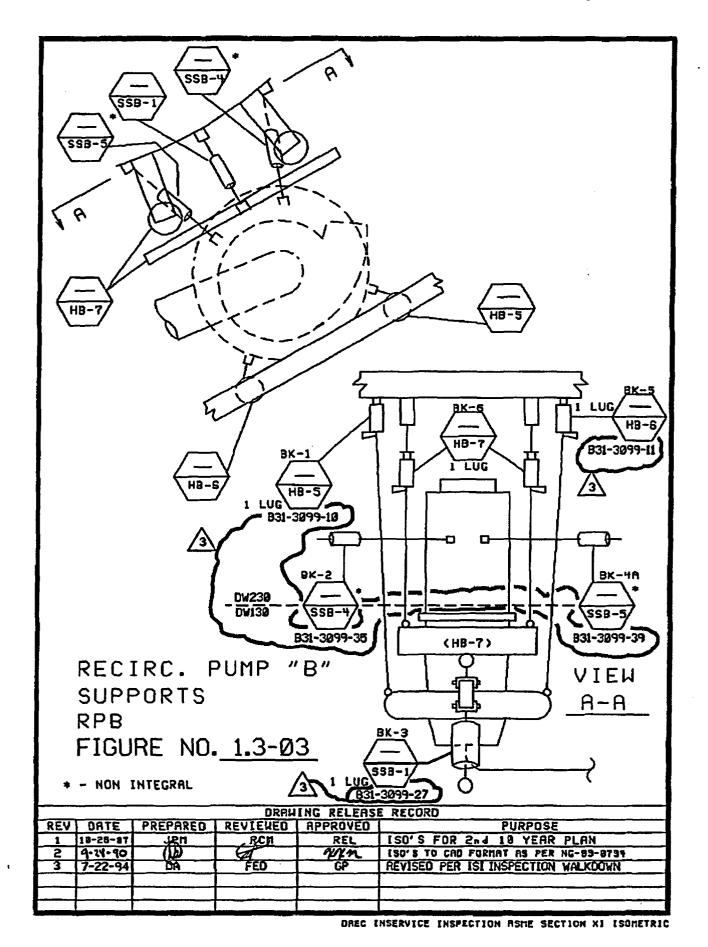
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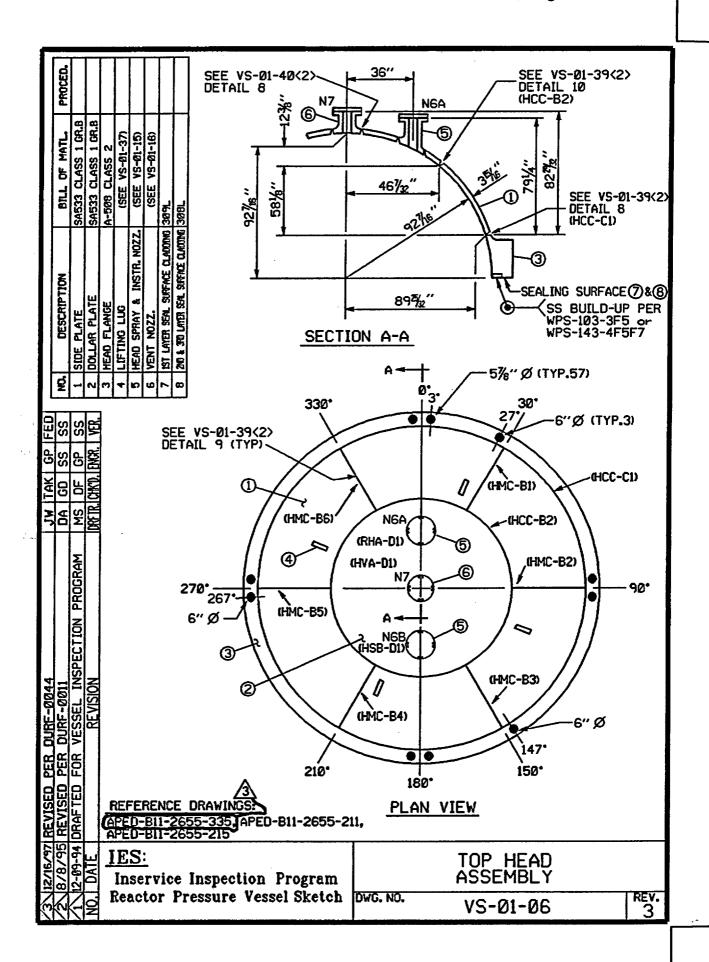
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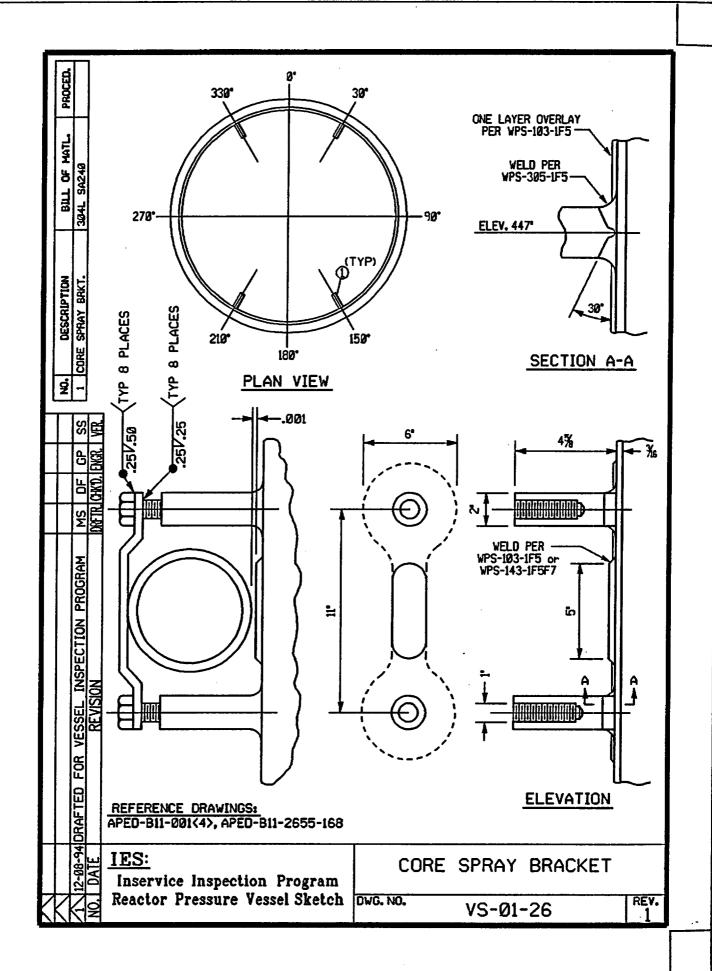
DRAWING RELEASE RECORD					
REV	DATE	PREPAREO	REVIEWED	APPROVED	PURPOSE
1	3-25-86	SHL	SIL	RCM	ISO'S FOR 2nd 10 YEAR PLAN
2	1-24-90	(J)	G	771	ISO'S TO CAD FORMAT AS PER NG-89-8794
3	7-22-94	DA	JAH /FED	GP	REVISED PER ISI INSPECTION WALKDOWN

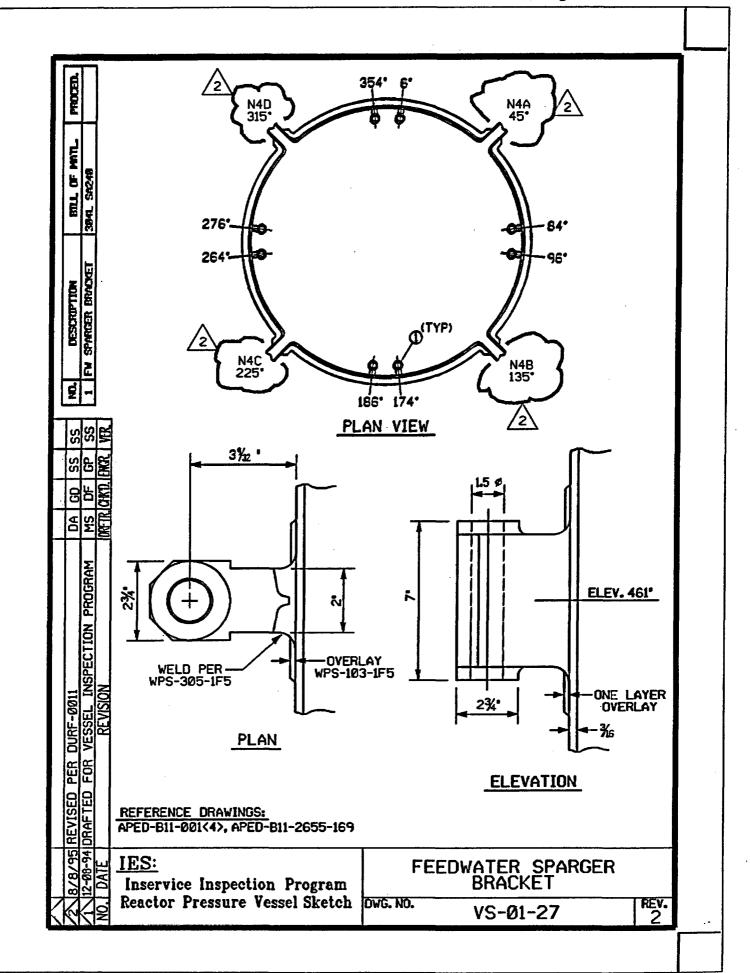


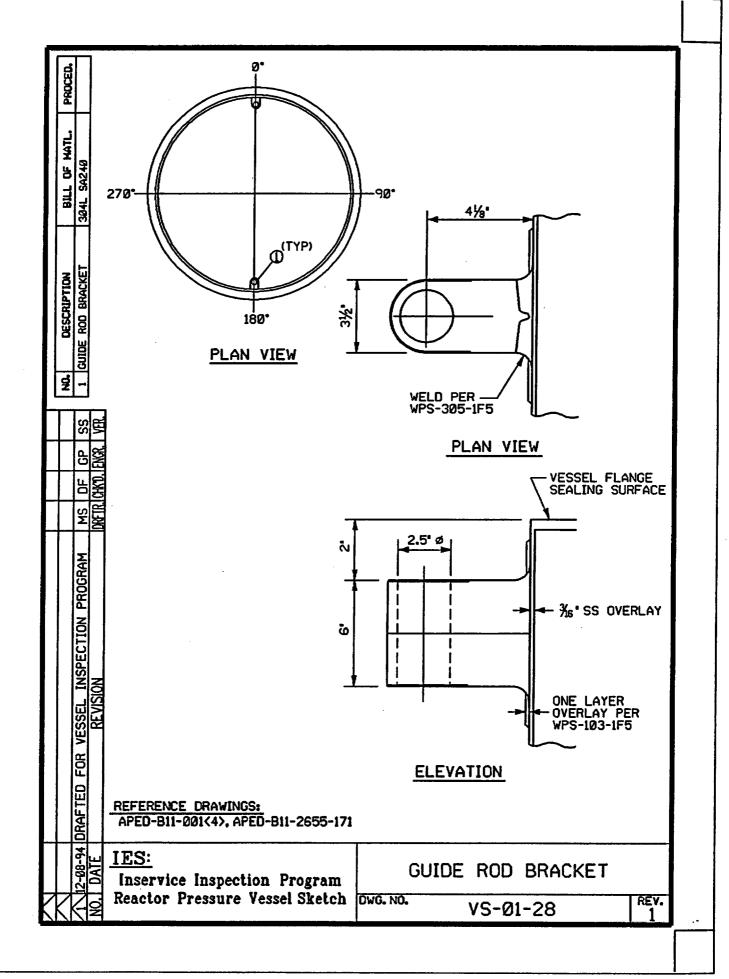
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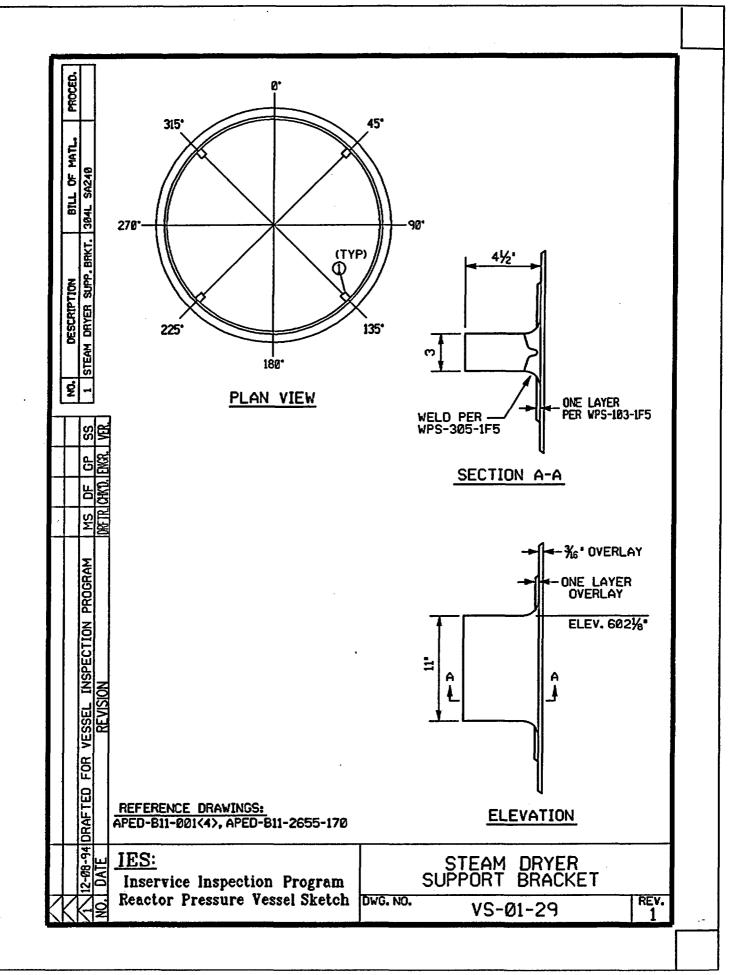


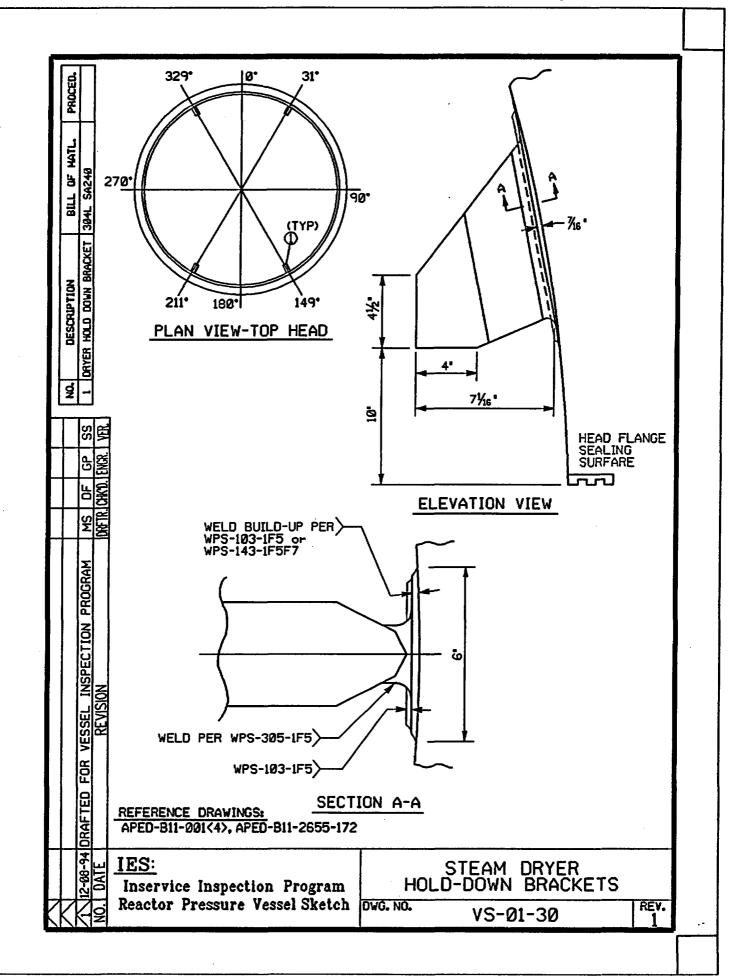


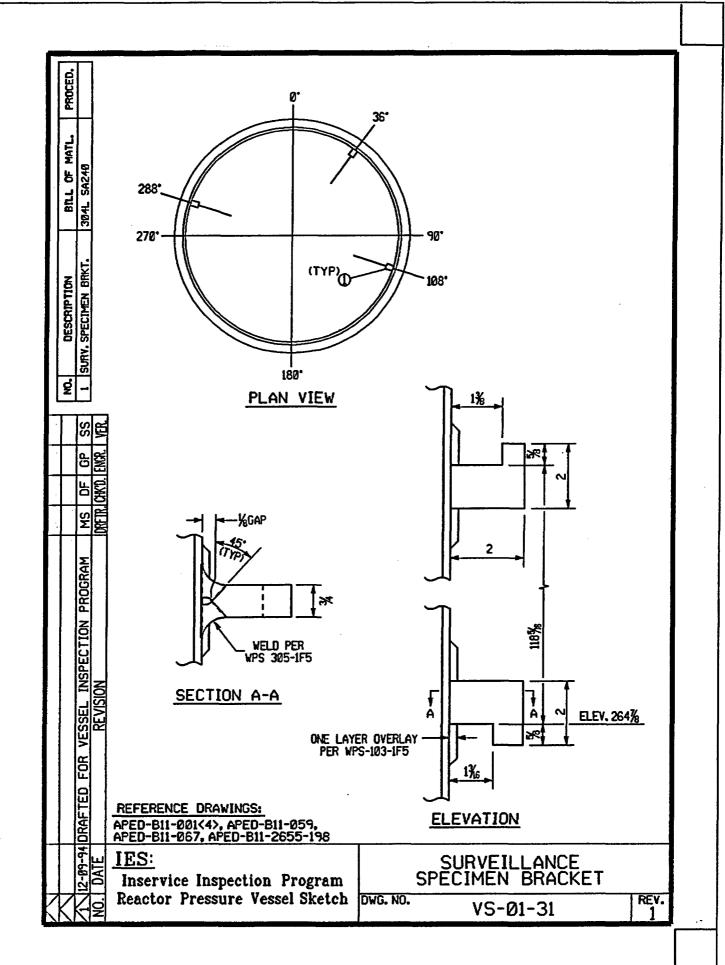


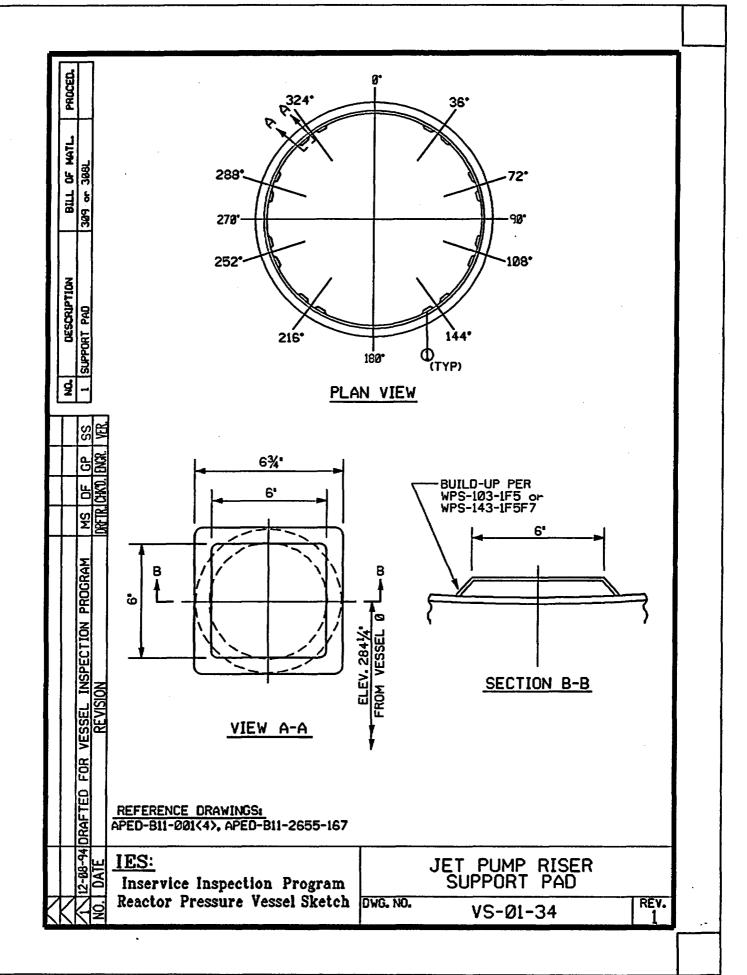


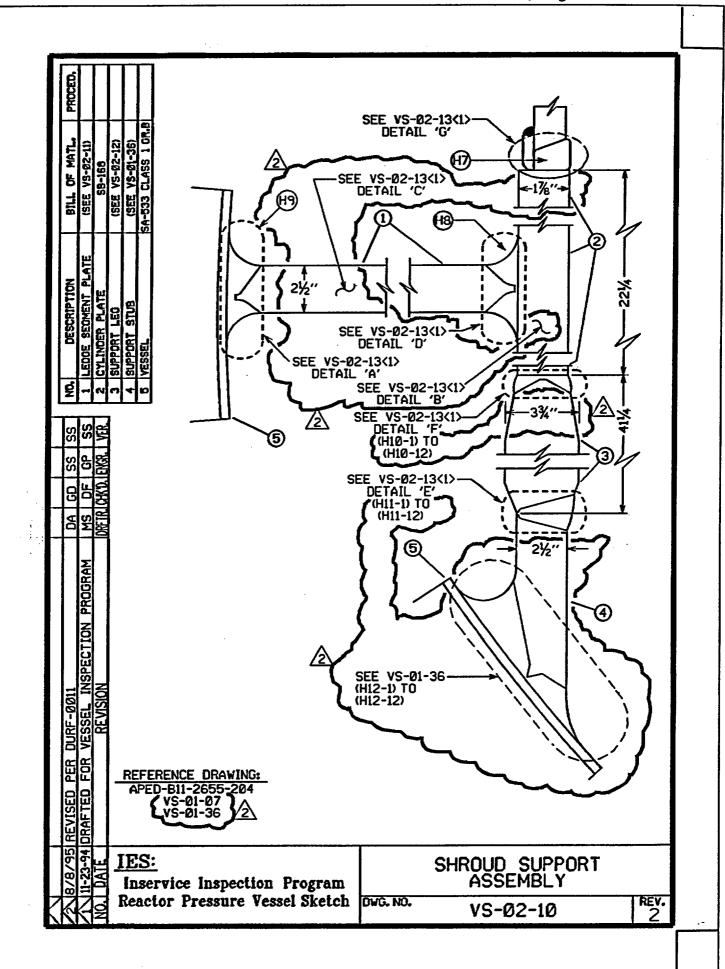


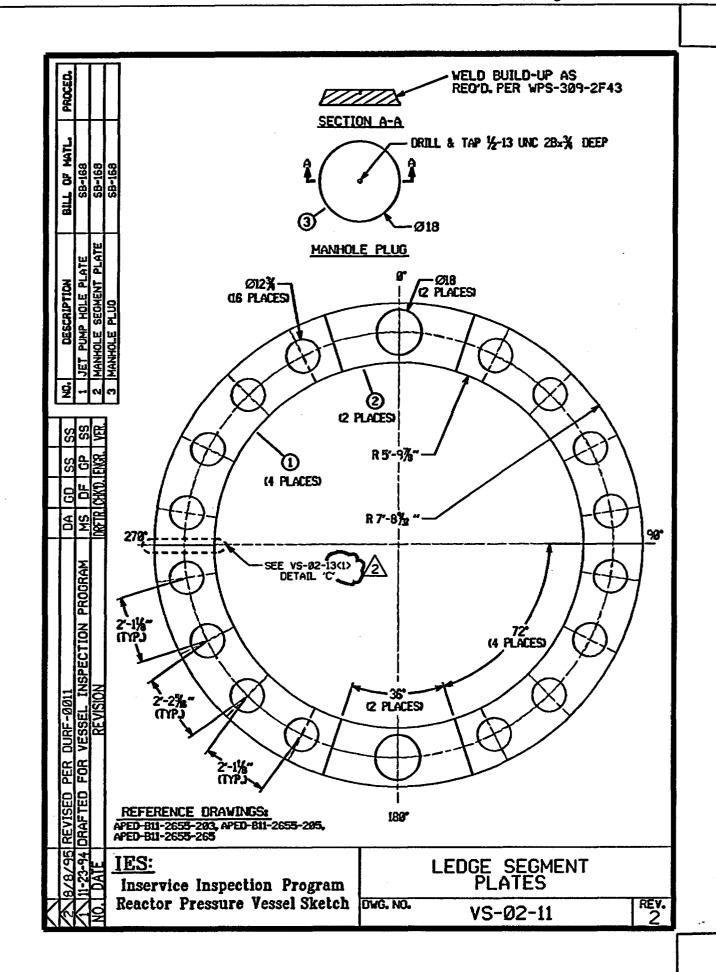


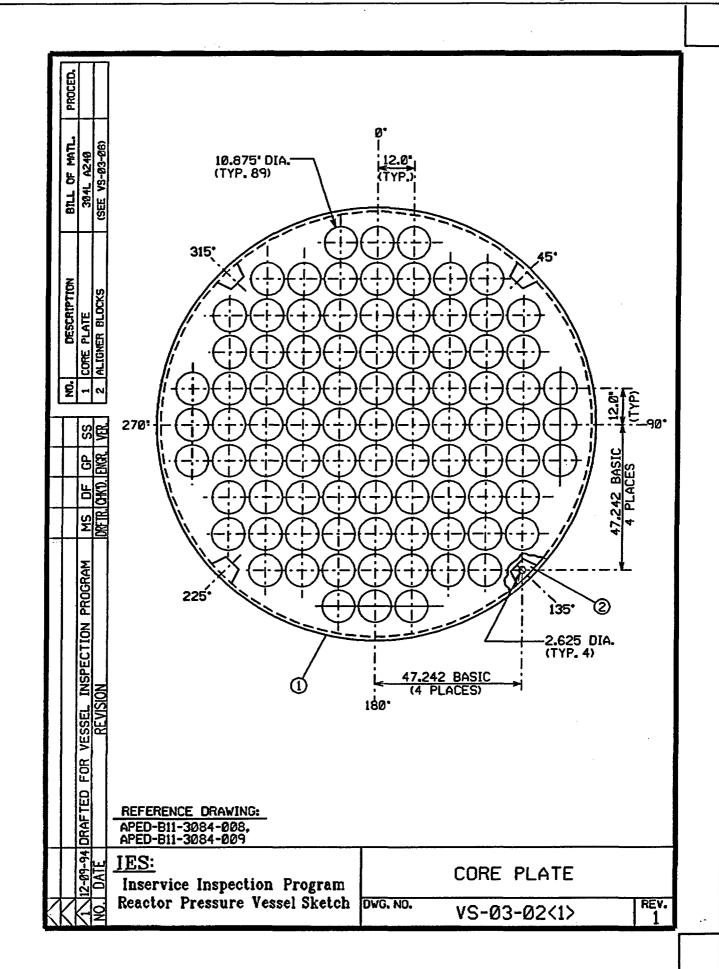


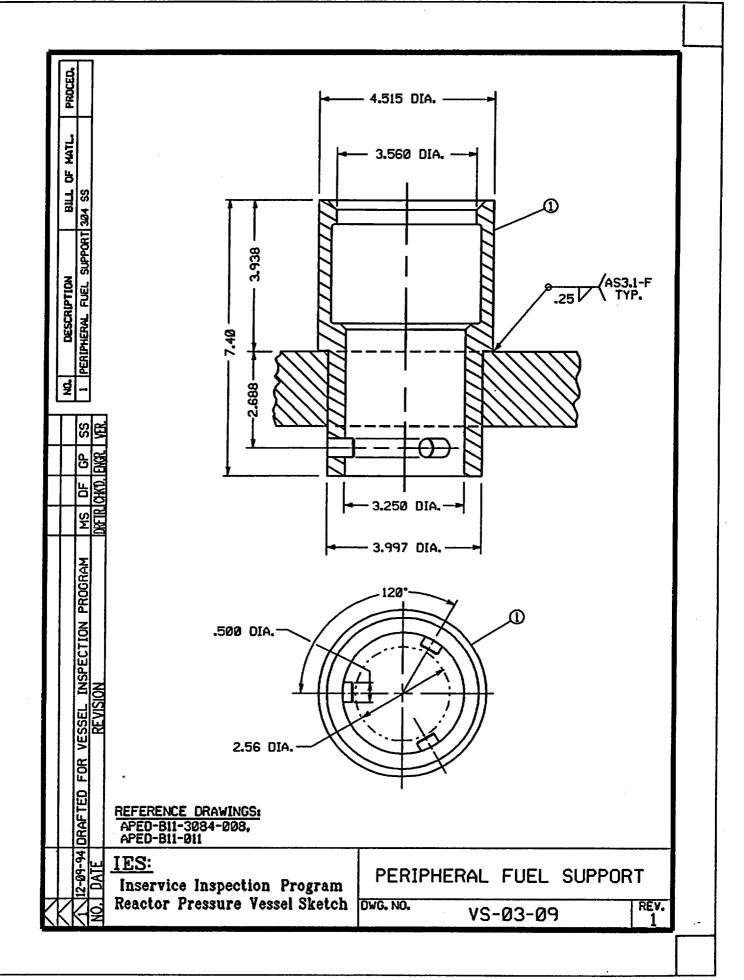


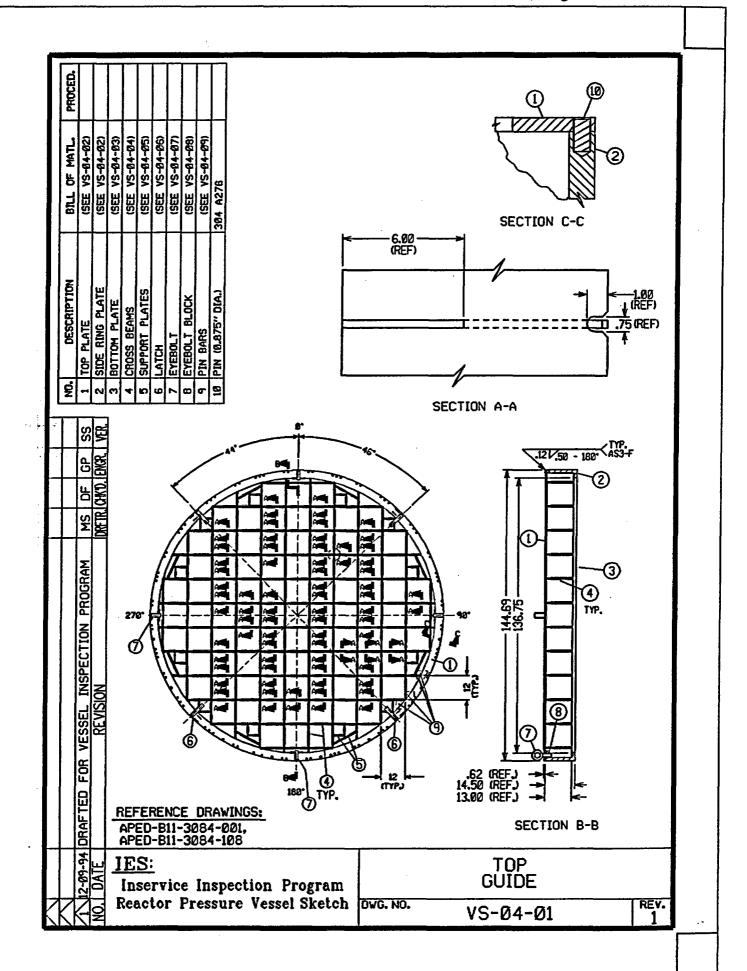


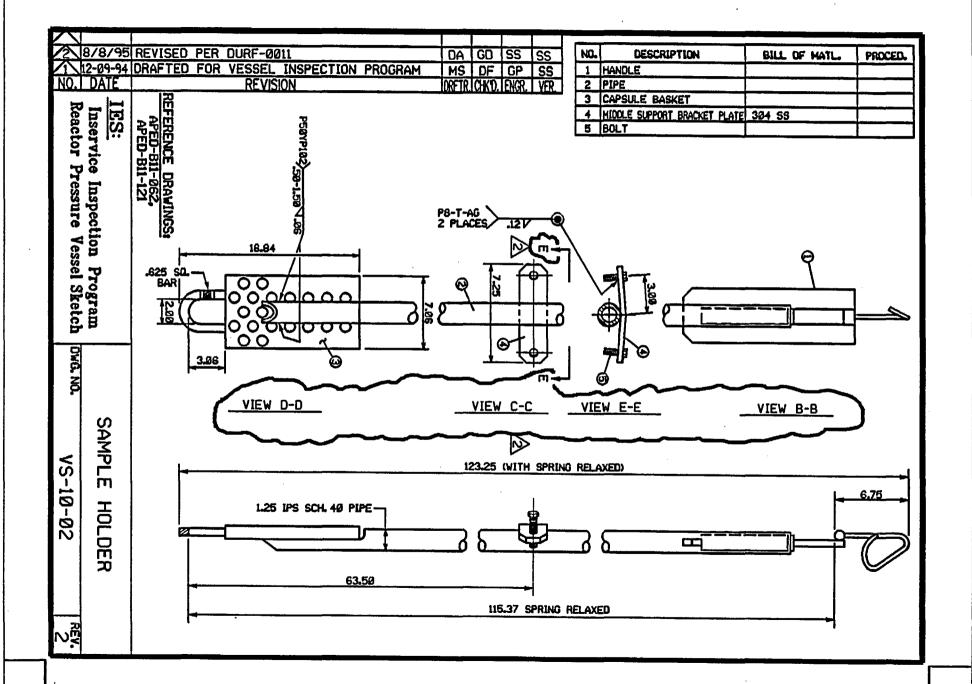




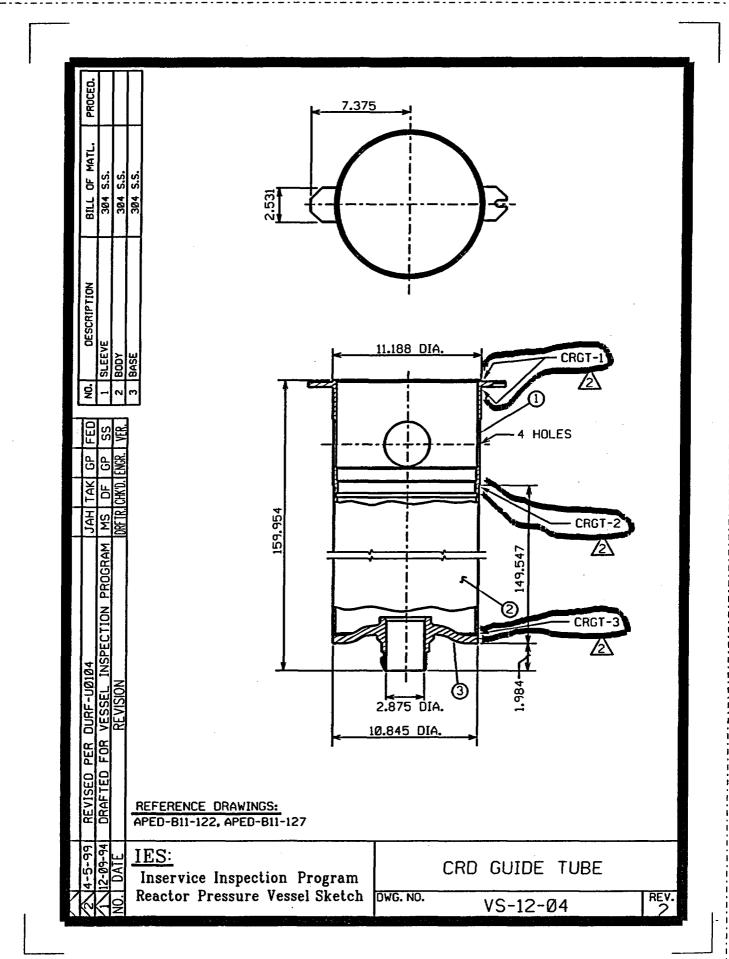


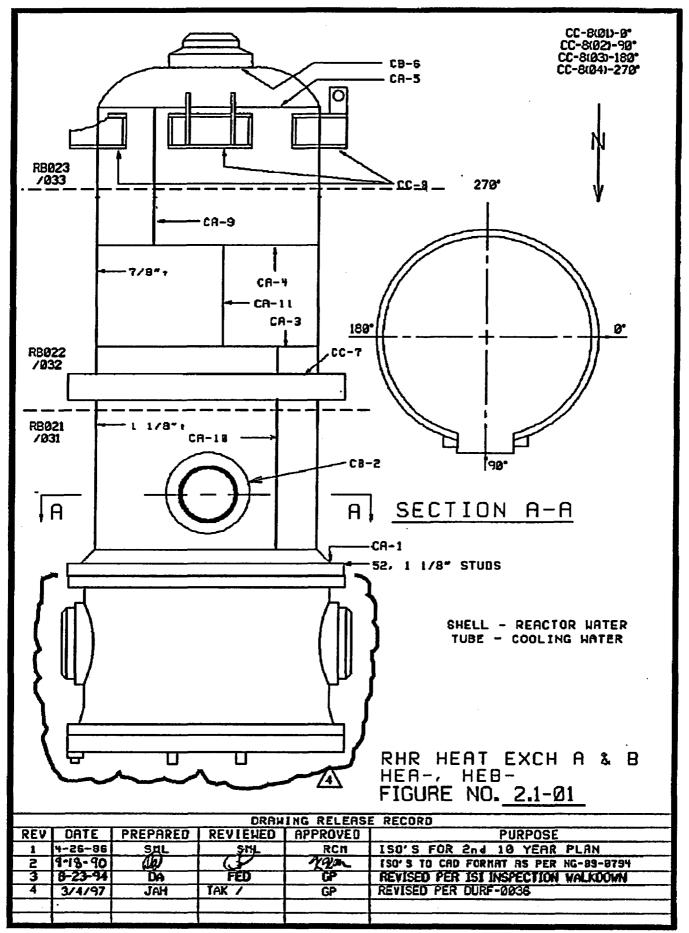




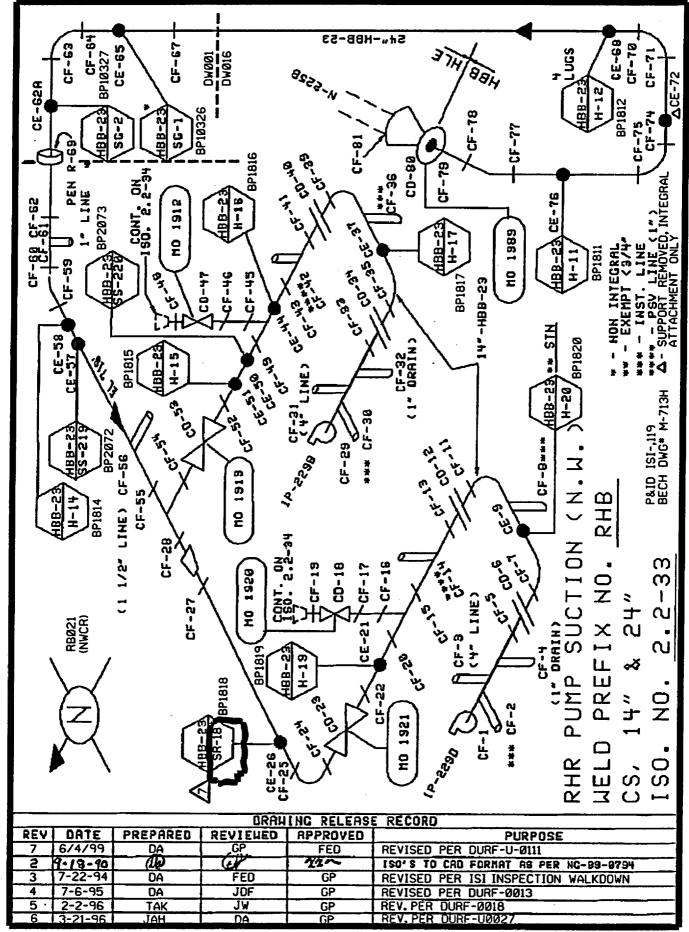


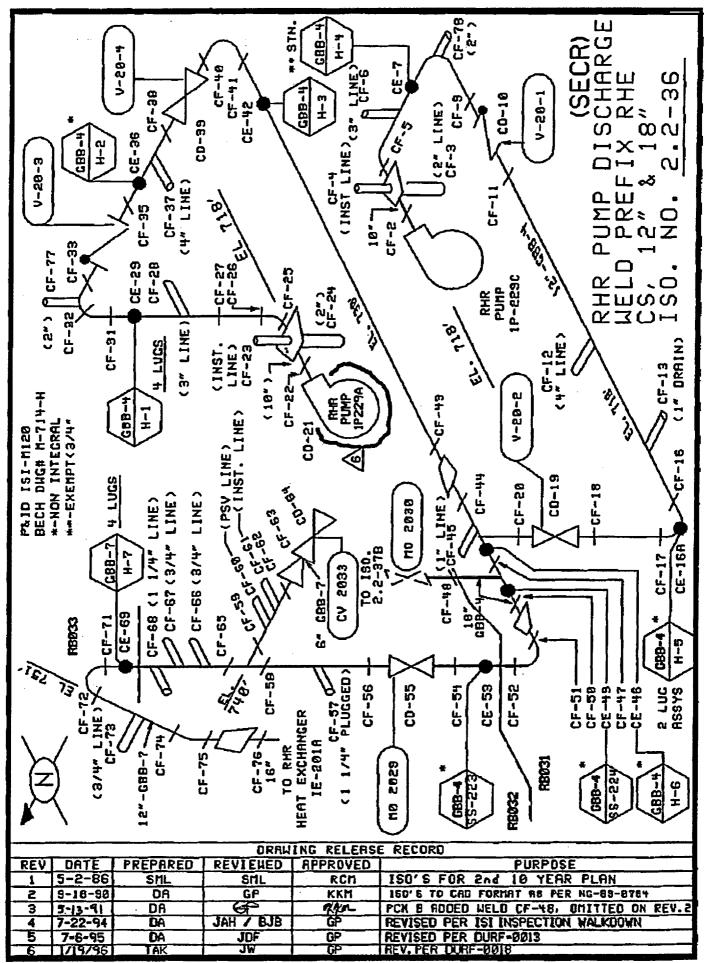
Part I, Page 32 of 52

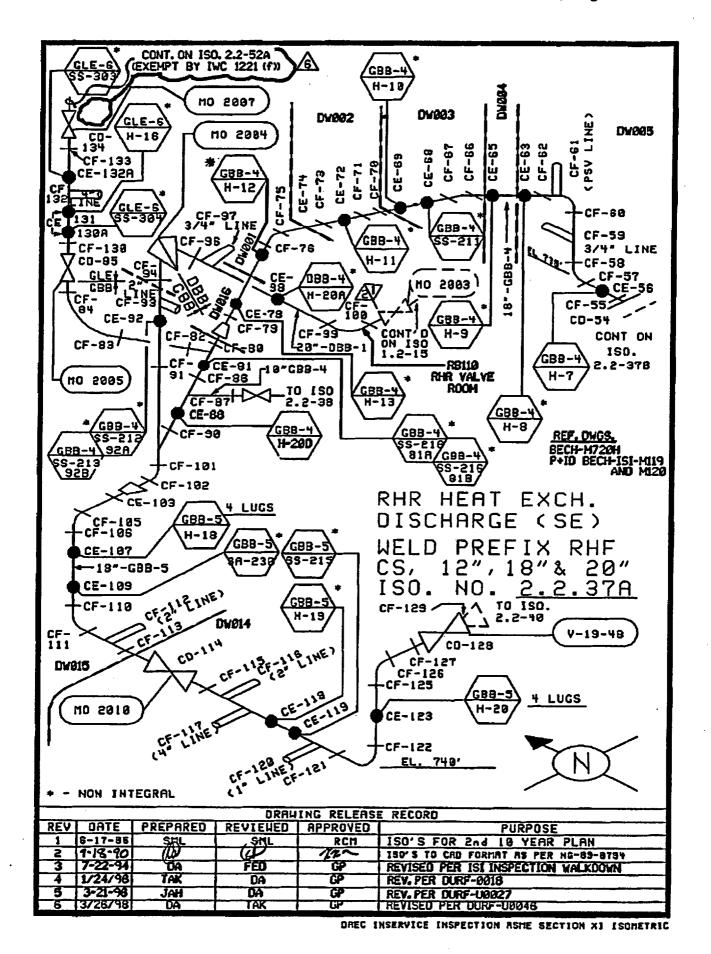


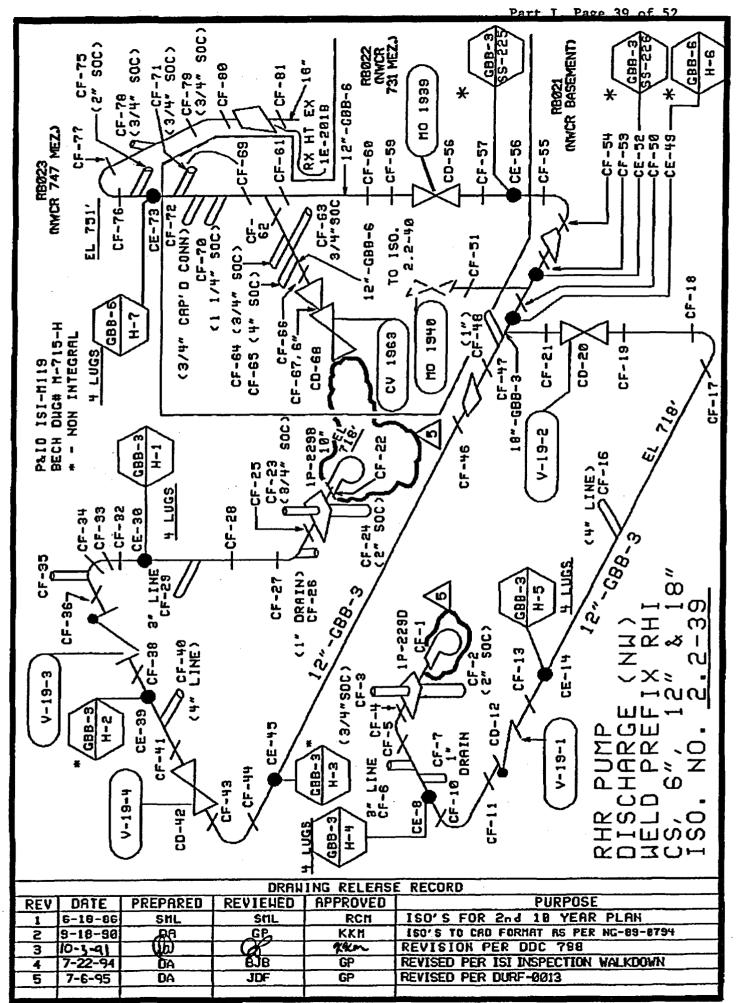


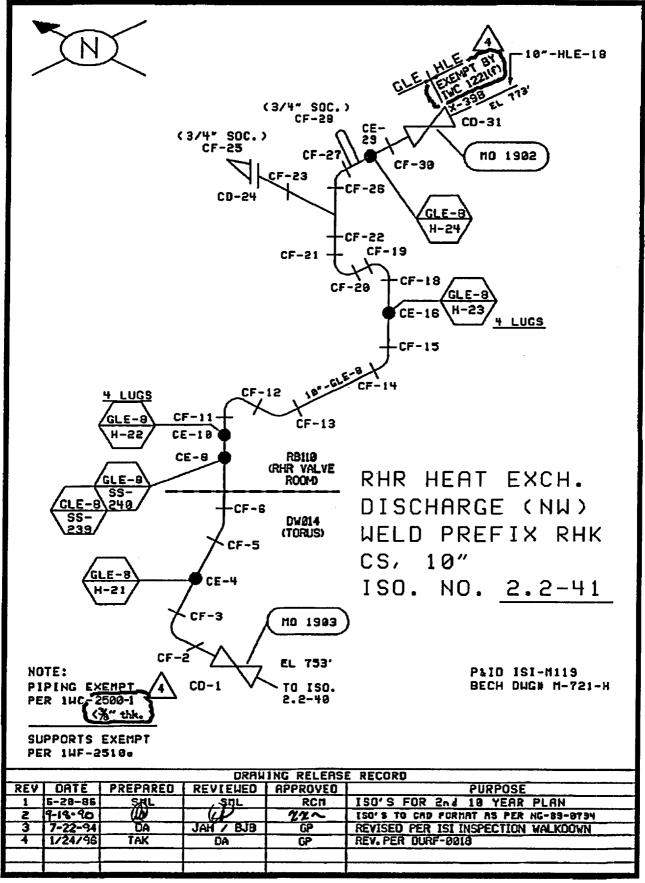
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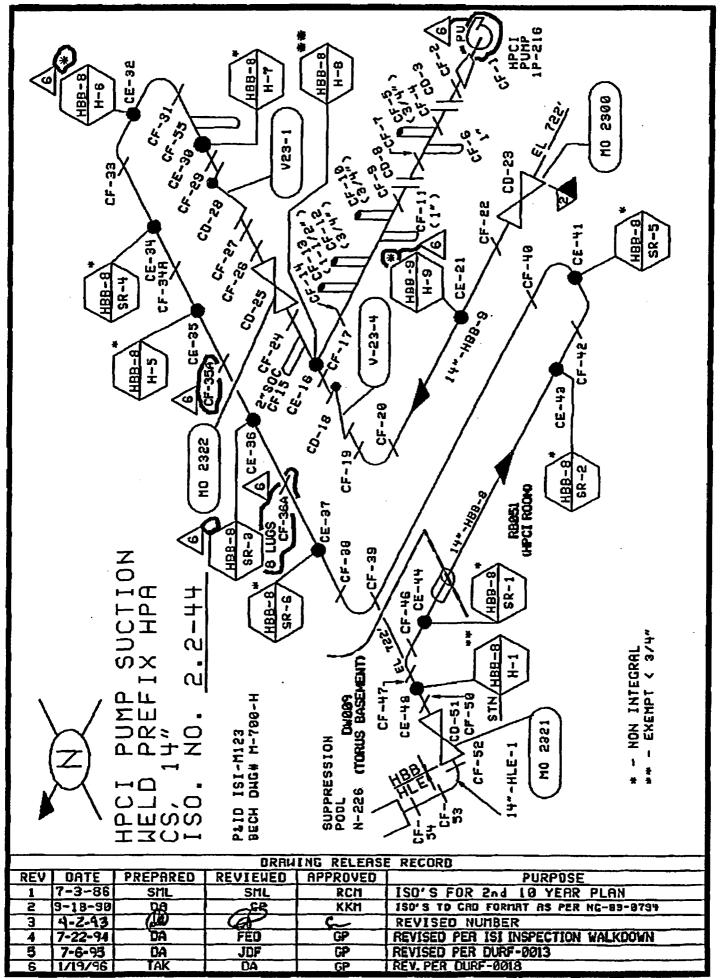


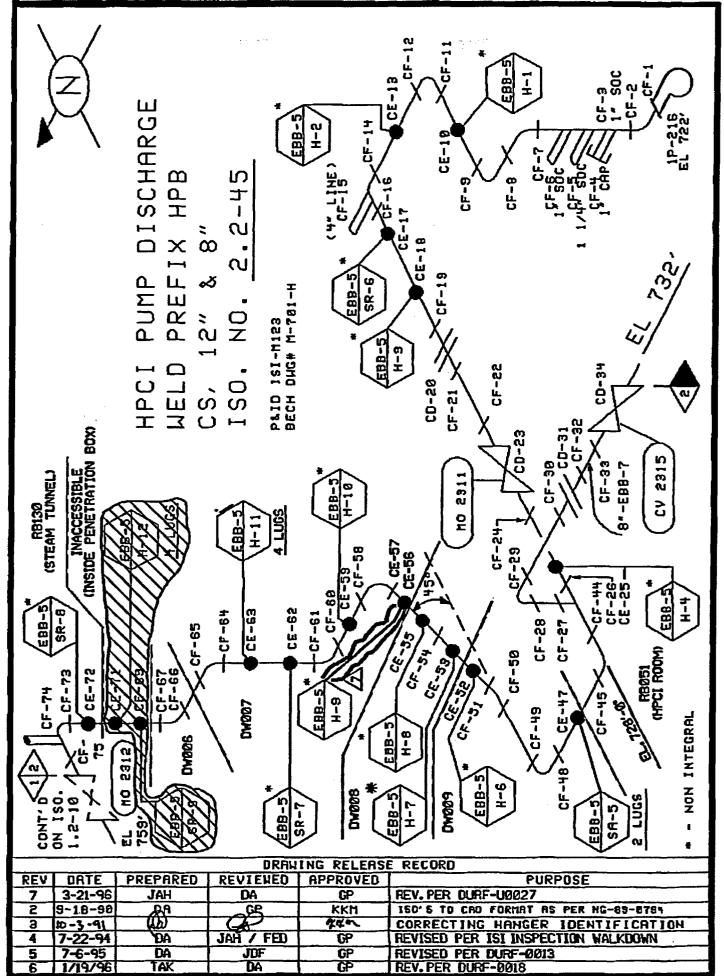


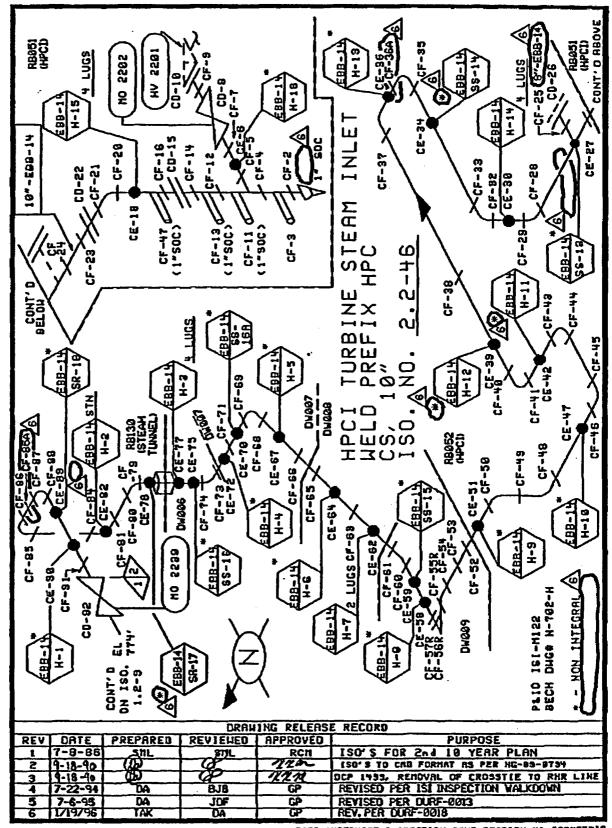




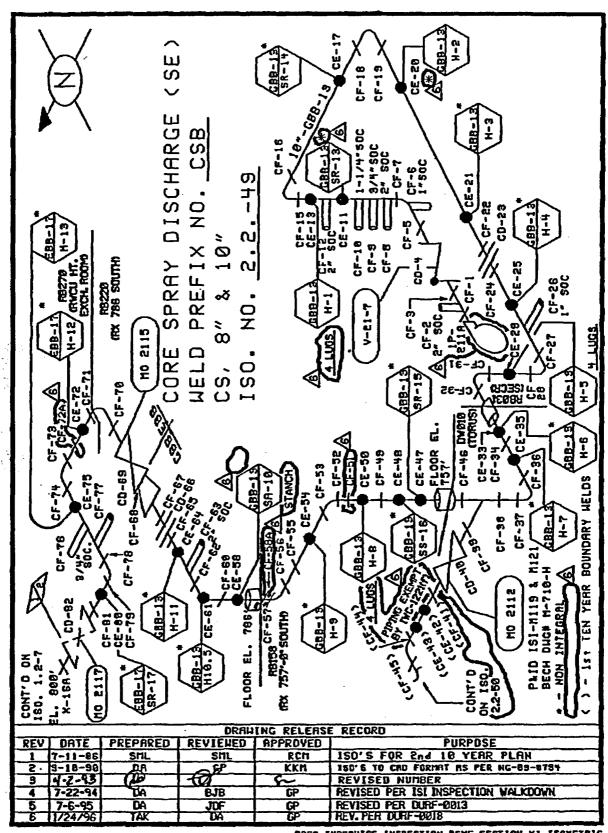
Part I, Page 41 of 52



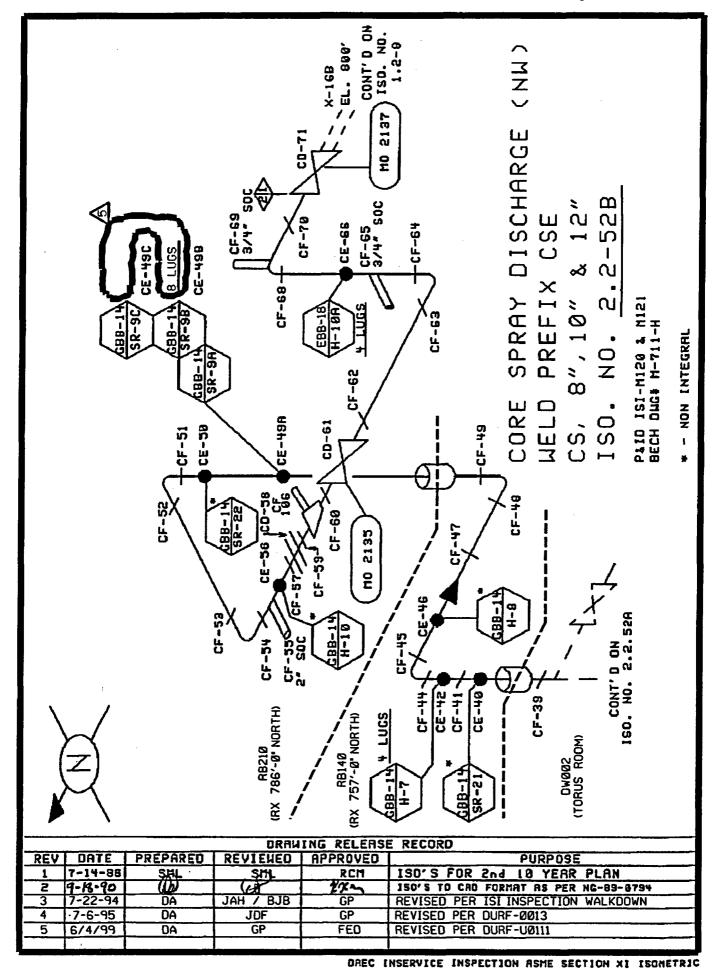


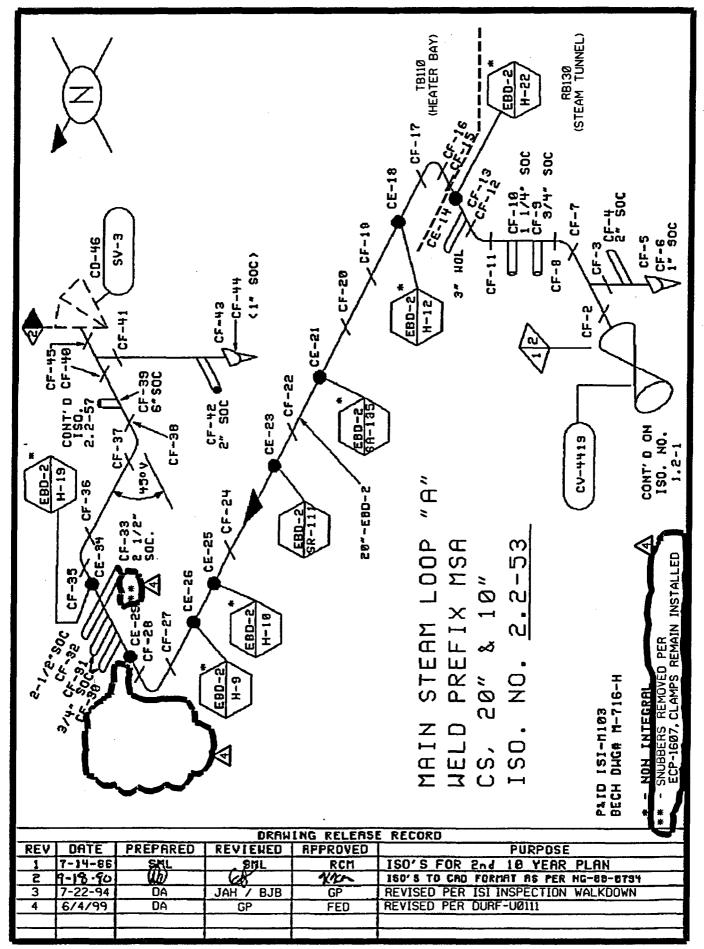


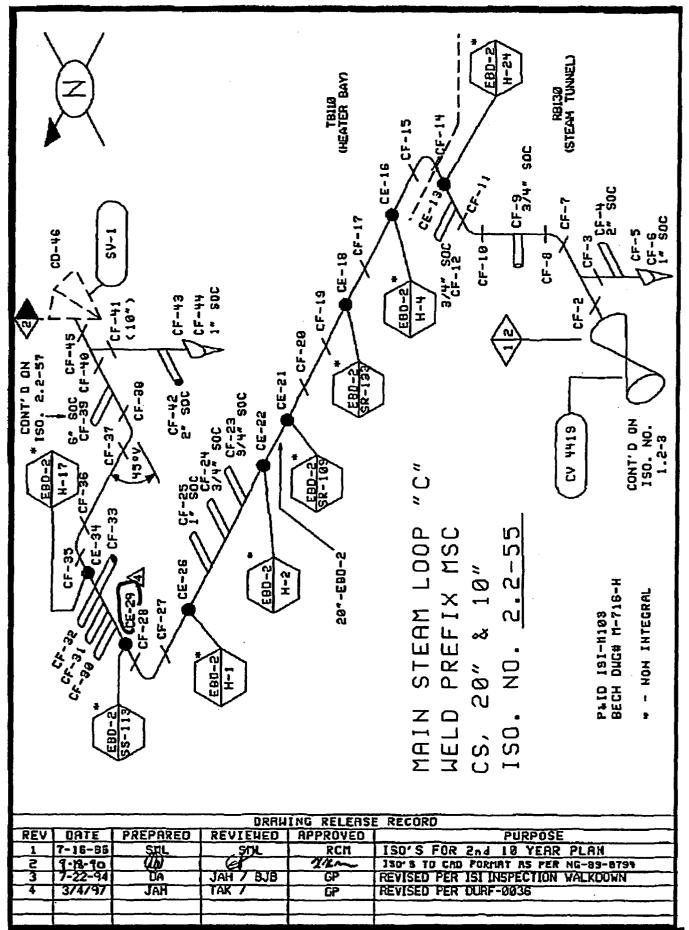
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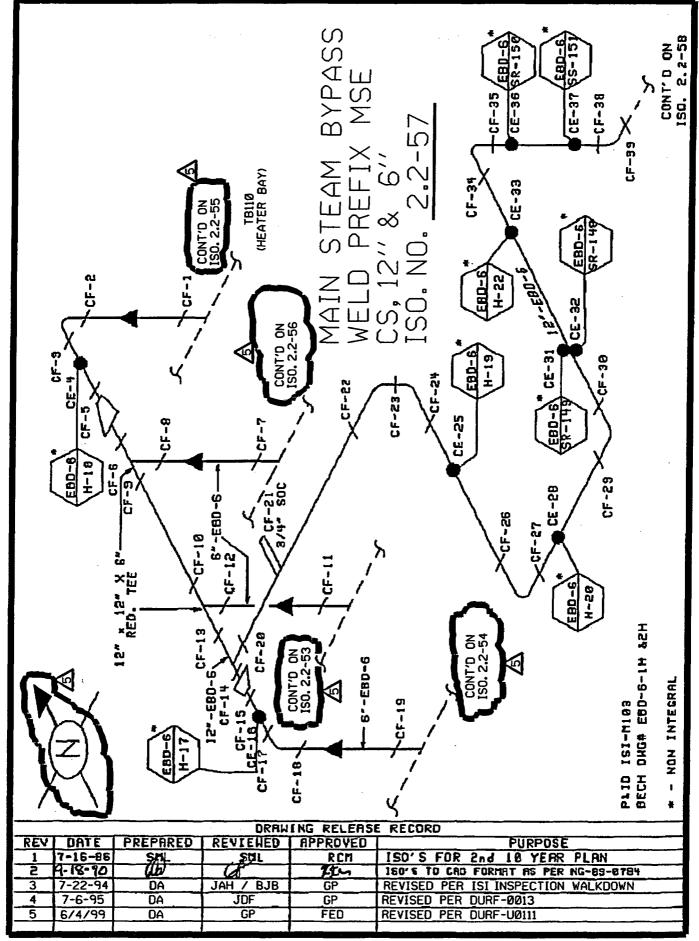


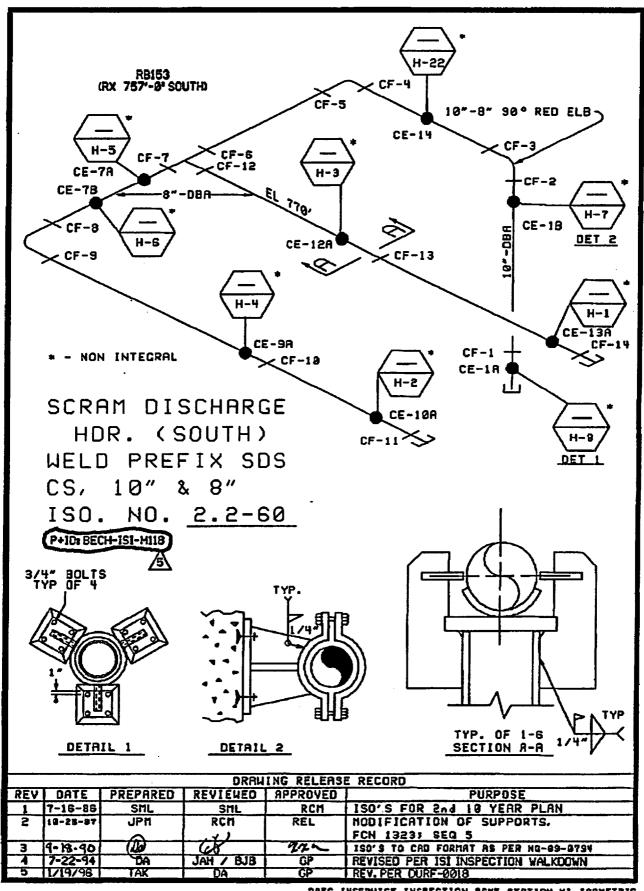
DREC INSERVICE INSPECTION RIME SECTION XI ISOMETRIC

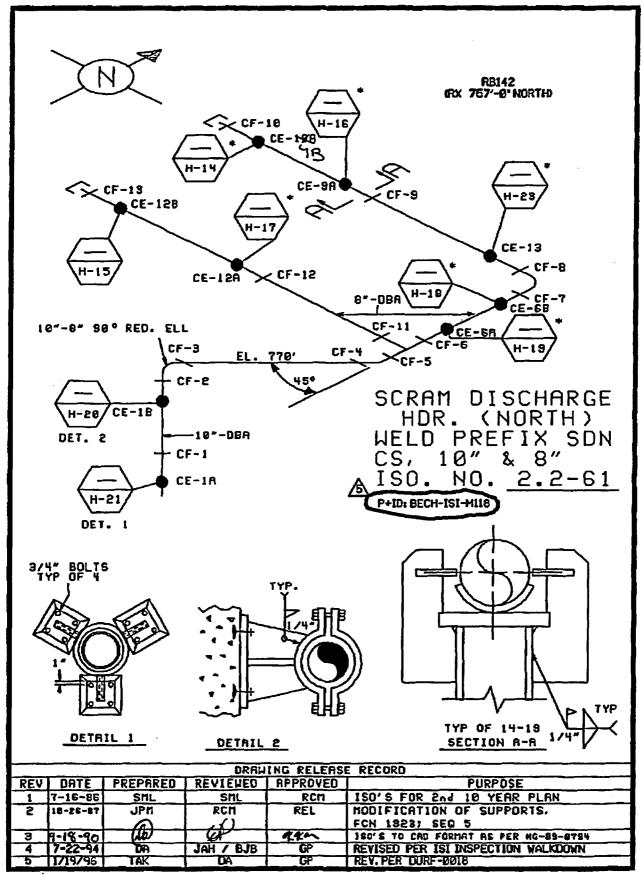




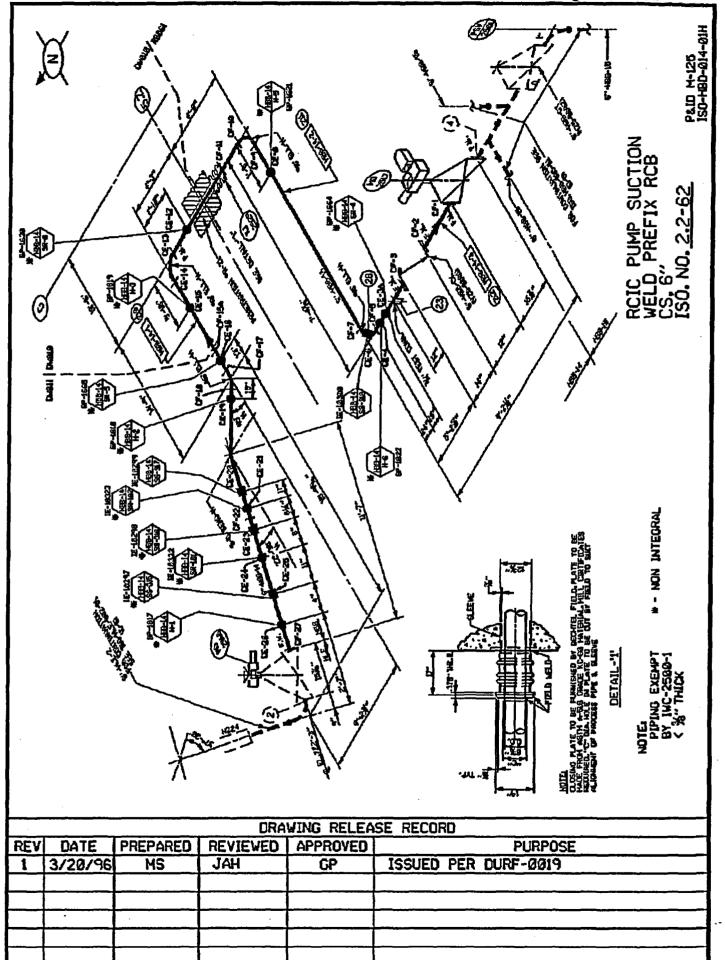








DREC INSERVICE INSPECTION ASME SECTION XI ISOMETRIC



# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

March 31, 2003 through April 20, 2003

Part J, page 1 of 4

Owners: Interstate Power and Light Company, 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

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: 614 MWE

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

(Those percentages shown are actual, where the percentages exceed the allowable only the maximum (50% for period one and at least 16% for period two) will be taken credit for).

CLASS 1							
ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	REMARKS		
		<b>ac</b> 4	001	201			
B1.11	4	0%	0%	0%			
B1.12	8	0%	0%	0%			
B1.21	2	25%	50%	50%			
B1.22	15	0%	0%	0%			
B1.30	1	50%	50%	50%	See Note 7		
B1.40	1	33%	67%	67%			
B1.51	1	0%	0%	0%			
B3.90	33	48%	73%	73%	See Note 1,8		
B3.100	33	48%	73%	73%	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%	71%	71%	See Note 8 and 11		
B5.20	8	38%	63%	63%	See Note 11		
B5.130	8	38%	63%	63%	See Note 11		
B5.140	2	0%	50%	50%	See Note 11		
B6.10	60	33%	67%	100%			
B6.20	<b>5</b> 6	29%	64%	100%			
B6.30	4	100%	100%	100%			
B6.40	60	33%	67%	100%			
B6.50	60	33%	67%	100%			
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%	67%	100%			
B7.50	5	20%	20%	20%	See Note 3		
B7.60	2	0%	0%	0%	See Note 3		
B7.70	47	4%	6%	8%	See Note 3		
B7.80	89	15%	15%	15%	See Note 3		
B9.11	94	22%	33%	33%	See Note 11		
B9.12	0	0%	0%	0%	See Note 6		
					and 11		
B9.21	9	22%	22%	22%	See Note 11		
B9.31	6	17%	33%	33%	See Note 11		
B9.32	1	0%	0%	0%	See Note 11		
B9.40	23	22%	40%	40%	See Note 11		

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT March 31, 2003 through April 20, 2003

Part J, page 2 of 4

Owners: Interstate Power and Light Company, 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: 614 MWE

	STATUS OF	WORK FOR T	HIRD TEN YI	EAR INTERV	AL				
CLASS 1									
ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	<u>REMARKS</u>				
B10.10	1	0%	0%	0%	See Note 4				
B10.20	3	33%	67%	100%	See Note 4				
B10.30	1	0%	0%	100%	See Note 4				
B12.20	2	0%	0%	0%					
B12.50	45	6%	9%	11%	See Note 3				
B13.10	35	37%	63%	77%					
B13.20	11	36%	36%	72%					
B13.30	27	4%	4%	44%					
B13.40	5	20%	20%	80%					
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				
	CLA	SS 1 AND CL	ASS 2 Risk Info	ormed					
ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	REMARKS				
R-I	70	0%	33%	33%	See Note 11				
		CL	ASS 2	·					

ITEM NO.	TOTAL #	PERIOD 1	PERIOD 2	PERIOD 3	<u>REMARKS</u>
C1.10	2	50%	50%	100%	
C1.20	1	0%	100%	100%	
C2.21	2	0%	50%	100%	
C2.22	2	0%	50%	100%	
C3.10	1	0%	0%	100%	See Note 4
C3.20	7	29%	57%	100%	See Note 4
C5.51	69	17%	36%	36%	See Note 11
C5.81	1	100%	100%	100%	See Note 11
C7.10	5	N/A	N/A	N/A	Once per period
C7.20	5	N/A	N/A	N/A	Once per interval

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT March 31, 2003 through April 20, 2003

Part J, page 3 of 4

1) Owners: Interstate Power and Light Company,

an Alliant company

Central Iowa Power Cooperative Marion, IA.

Corn Belt Power Cooperative

Humbolt, IA.

P.O. Box 351 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: 614 MWE

# STATUS OF WORK FOR THIRD TEN YEAR INTERVAL

<u></u>	CLASS 1 AND 2 SUPPORTS										
ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	REMARKS						
F1.10	42	33%	64%	100%	See Note 5						
F1.20	52	27%	58%	100%	See Note 5						
F1.40	20	40%	65%	85%	See Note 5						

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

	CLASS MC							
ITEM NO.	TOTAL#	PERIOD 1	PERIOD 2	PERIOD 3	REMARKS			
E1.11	3	33%	67%	0%				
E1.12	31	19%	67%	0%				
E1.20	8	38%	75%	0%				
E4.11	2	0%	40%	0%	See Note 9			
E5.30	4	25%	75%	0%				
E8.10	.14	29%	71%	0%				
E9.20	*	N/A	N/A	N/A	See Note 10			

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

March 31, 2003 through April 20, 2003

Part J, page 4 of 4

 Owners: Interstate Power and Light Company, an Alliant company
 P.O. Box 351
 Cedar Rapids, IA. 52406

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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: 614 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 is 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, B12.50

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 BWRVIP-75.

#### 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.

#### NOTE 11 - Item Numbers B5.XX, B9.XX, C5.XX, and R-I

Risk-Informed methods are utilized as described in EPRI TR-112657B-A to determine scope of inspections for examination categories B-F, B-J, and C-F-2. The Risk-Informed scope has been combined into a new item number R-I for implementation in the second and third periods of the third interval.

# THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT

March 31, 2003 through April 20, 2003

Part K, page 1 of 1

 Owners: Interstate Power and Light Company, 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: 614 MWE

# **RELIEF REQUESTS**

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

RELIEF REQUESTS	DESCRIPTION
NDE-R011	Use of Existing Calibration Blocks as an alternative
NDE-R012	Alternative Examination of Class 1 and 2 piping longitudinal seam welds
NDE-R014	Exemption from Appendix III calibration block notch dimensions
NDE-R015 Rev. 1	Use of the 1992 Addenda of ASME Section XI to govern repairs/replacements
NDE-R018	Alternative Rules for the selection and examination of Class 1, 2, and 3
	integrally welded attachments
NDE-R020	Use of the DAEC Technical Specification requirements for visual examination
	and functional testing of snubbers
NDE-R027	Limited Exam of Closure Head Threads in Vessel Flange.
NDE-R035	Alternative Requirements to Required Percentages of Examinations
NDE-R038	Alternative Requirements to VII-4240 "Annual Training"
NDE-R041	Use of the 1992 Edition of ASME Section XI for "Additional Examinations"
PR-002	Alternative Testing for Class2 Pressure Retaining Containment Penetrations
	connected to nonsafety related piping systems
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
MC-R004	Preservice Examination of Reapplied Paint or Coatings
MC-R005	Visual Examination of Painted or Coated Containment Components Prior to
	Removal of Paint of Coatings
MC-R006	Successive examinations of Repaired Areas
CODE CASE #	DESCRIPTION
N-198-1 (NDE-R023)	Inaccessible welds located in Containment Penetrations
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-I008)	Alternative rules for examination of Class 1, 2, 3 and MC component supports
N-508-1 (NDE-R033)	Rotation of Serviced Snubbers and Pressure Relief Valves for the Purpose of
	Testing
N-509 (TAP-I007)	Alternative rules for selection and examination of Class 1, 2, 3 and integrally
	welded attachments
N-516-1 (NDE-R042)	Underwater Welding
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-606 (MC-R007)	Extent and Frequency of VT-3 for Items E1.12 and E1.20
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THIRD TEN YEAR INTERVAL INSERVICE INSPECTION REPORT March 31, 2003 through April 20, 2003

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Attachment 3 to NG-03-0509 Augmented Inspection Results RFO 18 (3 Pages)

# AUGMENTED INSPECTION RESULTS RFO18

System Description	Weld or Component Description	Report Number	Inspection Requirement	ISI Iso/ Fig Number	Acc	Examination
REACTOR WATER	CUB-J005	I03024	Α	1.2-11B	Y	UT
CLEANUP	CUB-J008	I03025	Α	1.2-11B	Y	UT
	CUB-J010	103026	Α	1.2-11B	Y	UT
	CUB-J011	103027	Α	1.2-11B	Y	UT
	CUB-J013	I03028	A	1.2-11B	Y	UT
	CUB-J014	103029	Α	1.2-11B	Y	UT
•	CUB-J016	103030	Α	1.2-11B	Y	UT
	CUB-J017	I03031	Α	1.2-11B	Y	UT
CONTROL ROD DRIVE	CRA-F002	I03008	С	1.2-12A	Y	UT
	CRA-F004	103009	С	1.2-12A	Y	UT
	CRA-J003	I03015	С	1.2-12A	Y	UT
RCIC	RSB -J008	103035	Α	1.2-18	Y	UT
	RSB -J009	I03036	Α	1.2-18	Y	UT
RECIRCULATION PUMP	RCA-J005B	I03037	A	1.2-19A	Y	UT
SUCTION	RCA-J018	103038	Α	1.2-19A	Y	UT
RECIRCULATION	RBB-J006	I03046	A	1.2-21A	Y	UT
SYSTEM PUMP/VALVE	RBB-J007	I03047	Α	1.2-21A	Y	UT
BYPASS	RBB-J008	I03048	A	1.2-21A	Y	UT
	RBB-J012	I03049	Α	1.2-21A	Y	UT
Recirculation Pump	RCB-J021	I03051	A	1.2-21A	Y	UT
Suction	RCB-J037	I03052	Α	1.2-21A	Y	UT
Steam Dryer Assembly	STEAM DRY EXT SURFACE	I03064	В	VS-7-1	Y	VT-3
FEEDWATER	SPARGER 45° & 135°	I03064	F	VS-09-01	Y	EVT-1
JET PUMPS	JET PUMP #05	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #06	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #07	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #08	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #09	103064	G	VS-11-01	Y	EVT-1
	JET PUMP #10	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #11	I03064	. <b>G</b>	VS-11-01	Y	EVT-1
	JET PUMP #12	I03064	G	VS-11-01	Y	EVT-1

 $\ensuremath{\mathsf{ACC}}\xspace\ensuremath{\mathsf{-ACCEPTED}}\xspace$  , Y indicating accepted, N indicating rejected.

A-BWRVIP-75 B-GE SILS C-NUREG 0619 D-BWRVIP E – BWRVIP-76 (GL 94-03) F – BWRVIP-18

F - BWRVIP-18 G - BWRVIP-41 H - OWNER DEFINED

### **AUGMENTED INSPECTION RESULTS** RFO18

System Description	Weld or Component Description	Report Number	Inspection Requirement	ISI Iso/ Fig Number	Acc	Examination
Core Spray	HEADERS	103064	F	VS-05-01	Y	EVT-1
	DOWNCOMERS	I03064	F	VS-05-01	Y	EVT-1
JET PUMPS	JET PUMP #01 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #02 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #03 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #04 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #05 BEAM BOLT	103064	G	VS-11-01	Y	EVT-1
	JET PUMP #06 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #07 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #08 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #09 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #10 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #11 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #12 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #13 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #14 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #15 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
	JET PUMP #16 BEAM BOLT	I03064	G	VS-11-01	Y	EVT-1
CRD	CRD GUIDE TUBES	I03064	D	VS-13-02	Y	EVT-1

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

A-BWRVIP-75 B-GE SILS C-NUREG 0619

D-BWRVIP

E – BWRVIP-76 (GL 94-03) F – BWRVIP-18 G – BWRVIP-41

H - OWNER DEFINED

# AUGMENTED INSPECTION RESULTS RF018

System Description	Weld or Component Description	Report Number	Inspection Requirement	ISI Iso/ Fig Number	Acc	Examination
Core Spray	CSA-J003	I03017	A	1.2-07	Y	UT

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

A- BWRVIP-75 B- GE SILS C – NUREG 0619 D- BWRVIP

E - BWRVIP-76 (GL 94-03) F - BWRVIP-18 G - BWRVIP-41

H - OWNER DEFINED