

**FORM N-1 OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES**
As Required by the Provisions of the ASME Code, Section III, Division 1
Not to Exceed one Day's Production

1. Manufactured and certified by CE Nuclear Power LLC, 55 Old Dover Road, Newington, NH 03801.
2. Manufactured for CE Nuclear Power LLC, 2000 Dry Hill Road, Windsor, CT 06095-0509.
3. Location of installation Consumers Energy Company, Fallsides Station, Michigan
4. Type GND-E-4996 Rev. 05 * SEE BACK (mkt spec. no.) * SEE BACK (insite strength) N/A (cm) 2001 (year built)
5. ASME Code, Section III: 1986 (edition) 1988 (addenda) 1 (class) NB (subsection) None (code case)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks: CBDM Seal Housing Assemblies
8. Nom. thickness (in) * See Back min. design thickness (in.) * See Back Dia. ID (R & in.) * See Back Height overall (R & in.) * See Back
9. When applicable, Certificate Holders' data reports are for each item of this report:

Part or Appearance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER	Part or Appearance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER
(1) 224	2906	(18) 246	2923
(2) 225	2907	(19) 247	2924
(3) 226	2908	(20)	
(4) 227	2909	(21)	
(5) 228	2910	(22)	
(6) 229	2911	(23)	
(7) 230	2912	(24)	
(8) 236	2913	(25)	
(9) 237	2914	(26)	
(10) 238	2915	(27)	
(11) 239	2916	(28)	
(12) 240	2917	(29)	
(13) 241	2918	(30)	
(14) 242	2919	(31)	
(15) 243	2920	(32)	
(16) 244	2921	(33)	
(17) 245	2922	(34)	

10. Design pressure 2500 psi

Temp 600 °F

Hydro. test pressure 3125 psi at temp 70 °F

FORM N-2 (back)

Part Serial No. 224 thru 230 & 236 thru 247

CERTIFICATE OF DESIGN

Design specification certified by N/A P.E. state N/A Reg. no. N/A
 (when applicable)
 Design report certified by N/A P.E. state N/A Reg. no. N/A
 (when applicable)

CERTIFICATE OF SHOP INSPECTION

We certify that the statements made in this report are correct and that this (these) CRDM Seal Housing assemblies conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N 2041
 Date 3/2/01 Name CE Nuclear Power LLC
(NPT Certificate Holder)

Expires February 20, 2002
 Signed [Signature]
 (authorized representative)

CERTIFICATE OF SHOP 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 New Hampshire and employed by H. S. B. I. & I. Co. have inspected these items described in this data report on March 2, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appendances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

By signing this Certificate, neither the inspector nor his employer certifies any warranty, expressed or implied, concerning the equipment described in this data report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 3/2/01 Signed [Signature] Commissioner NH202 No. N/A
 (state or prov and no)

MATERIAL	TENSILE	NOMINAL THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
SB-166 NO6600 Access Tube Flange	80,000	.120"	.115"	1.26"	2"
SB-167 NO6600 Access Tube	80,000	.120"	.108"	1.26"	39.50"
SB-166 NO6600 Seal Housing	80,000	.28	.26	2.06	11.38

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company
Name

Date March 5, 2002

27780 Blue Star Hwy. Covert, MI
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant
Name

Unit 1

27780 Blue Star Hwy. Covert, MI
Address

W.O.# 24111996
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Component Cooling (CCS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89
Year

(c) Applicable Section XI Code Cases None

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Heat Exch. End Bell	Kundinger Fluid Power	1-025-7-06 -115.01-CL -3	None	PO# G0361381-1	01	Installed	No
Heat Exch. End Bell	Kundinger Fluid Power	10407081501	None	PO# G0361381-1	01	Installed	No

7. Description of Work Replace heat exchange E-55A end bell.

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Exempt
Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.



24111996

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Wayne E. Shrad Senior Eng. Date March 05 2002
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I. have inspected the components described in this Owner's Report during the period 11/20/99 to _____, 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.

Inspector's Signature _____ Commissions MI -762 ABNI
National Board, State, Province, and Endorsements

Date _____

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company
Name
27780 Blue Star Hwy. Covert, MI
Address

2. Plant Palisades Nuclear Plant
Name
27780 Blue Star Hwy. Covert, MI
Address

3. Work Performed by Consumers Energy
Name
27780 Blue Star Hwy. Covert, MI
Address

Date 8/13/2001

Sheet 1 of 1

Unit 1

W.O.# 24112500
Repair/Replacement Organization P.O. No., Job No., etc.

Type Code Symbol Stamp N/A

Authorization No. N/A

Expiration Date N/A

4. Identification of System SERVICE WATER SYSTEM

5. (a) Applicable Construction Code B31.1, 1986 Year Edition, N/A Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 1989 Year

(c) Applicable Section XI Code Cases N/A

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
VALVE GATE	VOGT VALVE	N/A	N/A	PO# G0257230Q	1998	INSTALLED	NO

7. Description of Work REPLACE VALVE GATE WITH NEW GATE FROM NEW VALVE

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Exempt

Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.



24112500

FORM NIS-2 (Back)

9. Remarks

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for handwritten remarks.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed J.P. Williams SR. ENGINEERING ANALYST Date 8/13/2001
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described

in this Owner's Report during the period 11/20/99 to 5/10/01, 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.

K. Blake Commissions MT-762 ABNT
Inspector's Signature National Board, State, Province, and Endorsements

Date Aug. 14, 2001

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company
Name

Date FEBRUARY 15, 2002

27780 Blue Star Hwy. Covert, MI
Address

Sheet 1 of _____

2. Plant Palisades Nuclear Plant
Name

Unit 1

27780 Blue Star Hwy. Covert, MI
Address

W.O.# 24112972
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System PRIMARY COOLANT (PCS)

5. (a) Applicable Construction Code ASME III, 1989 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89
Year

(c) Applicable Section XI Code Cases N-416.1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
			SEE	ATTACHED			

7. Description of Work REPLACE REACTOR VESSEL N-52 CRD UPPER HOUSINGS

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Exempt
Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.



24112972

FORM NIS-2 (Back)

9. Remarks SEE DATA REPORTS ATTACHED

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Ray E. Shrad SENIOR ENG Date FEBRUARY 15, 2002
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I.

have inspected the components described in this Owner's Report during the period 11/20/99 to 02/19/02, 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.

R. E. Blake Commissions MI -762 ABNT
Inspector's Signature National Board, State, Province, and Endorsements

Date FEB. 19, 2002

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes or No)
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CRD Upper Housing	Comb. Eng. Nuclear	RP-1054	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1055	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1056	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1057	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1058	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1059	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1060	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1061	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1062	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1063	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1064	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1065	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1066	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1067	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1068	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1069	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1070	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1071	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1072	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1073	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1074	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1075	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1076	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1077	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-0178	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1079	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1080	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1081	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1082	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1083	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1084	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1085	N/A	PO # GO361396	01	Installed	Y

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes or No)
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CRD Upper Housing	Comb. Eng. Nuclear	RP-1086	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1087	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1088	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1089	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP1090	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1091	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1092	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1093	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1094	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1095	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1096	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-1097	N/A	PO # GO361396	01	Installed	Y
CRD Upper Housing	Comb. Eng. Nuclear	RP-2005	N/A	PO # GO361396	01	Installed	Y
Studs	Nova Mach. Products	Ht. # 534007	N/A	PO # GO3590321-1	01	Installed	N

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)

Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)

Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)

Type CND-E-5003G01 Rev. 6 SA-312 TP 316 75,000 N/A 2001
(drawing number) (matl. spec no.) (tensile strength) (CRN) (year built)

ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)

Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)

Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.

Supplied on Westinghouse Contract 4500070105.

Norm. Thickness (in.) In. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
When applicable, Certificate Holders' Data Reports are attached for each item of this report

Part or Appurtenance Serial Number	National Board No. In Numerical order	Part or Appurtenance Serial Number	National Board No. In Numerical Order
(1) RP-1054		(26)	
(2)		(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 65 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in Items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

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FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1054 through RP-1054

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
conforms to the rules of construction of the ASME Code, Section III, Division 1.

(NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-12-01 Name Ionics, Incorporated Signed D. Sullivan
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province
of Pennsylvania and employed by Factory Mutual Insurance Company
of Johnston, RI have inspected these items described in this Data Report on December 12, 2001 and state that to the
best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section
III, Division 1. Each part listed has been authorized for stamping on the data shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described
in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage
or loss of any kind arising from or connected with this inspection.

Date 12-12-2001 Signed D. Sullivan Commissions NB 2314 and PA 2245
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)

Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)

Location of Installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)

Type	<u>CND-E-5003G01 Rev. 6</u> (drawing number)	<u>SA-312 TP 316</u> <u>SA 182 TP 347</u> (mat'l. spec no.)	<u>75,000</u> <u>75,000</u> (tensile strength)	<u>N/A</u> (CRN)	<u>2001</u> (year built)
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ASME Code, Section III, Division 1:	<u>1989</u> (edition)	<u>No</u> (addenda date)	<u>I</u> (class)	<u>N/A</u> (Code case no.)
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Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A

Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.

Nom. Thickness (in.) --- In. design thickness (in.) --- Dia. ID (ft & in.) --- Length overall (ft & in.) 14'-6.5"
When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) <u>RP-1055</u>	<u>---</u>
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
(14)	
(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
(37)	
(38)	
(39)	
(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 66 °F
(when applicable)

Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1055 through RP-1055

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002

Date 12-11-01 Name Ionics, Incorporated Signed D. S. [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on March 11, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section II, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-14-2001 Signed [Signature] Commissions NB 8314 & PA 2245
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017

Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095

Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043

Type CND-E-5003G01 Rev. 6 SA-312 TP 316 SA 182 TP 347 75,000 75,000 N/A 2001

Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A

Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange. Manufactured on Ionics Contract 1149. Supplied on Westinghouse Contract 4500070105.

Nom. Thickness (in.) in. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order. Row 1: (1) RP-1056

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 25-50

Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 64 °F

Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in Items 2 and 3 on this Data Report is used on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1056 through RP-1056

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

I hereby certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly conforms to the rules of construction of the ASME Code, Section III, Division 1.

Certificate of Authorization No. N-2974-1 Expires March 26, 2002
12-10-01 Name Ionics, Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company in Rhinecliff, RI have inspected these items described in this Data Report on March 10, 2001, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage of any kind arising from or connected with this inspection.

Signed [Signature] Commissions NB-2714 and PA 2245
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)

Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)

Location of Installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)

Type CND-E-5003G01 Rev. 6 SA-312 TP 316 75,000 N/A 2001
(drawing number) (mat'l. spec no.) (tensile strength) (CFR) (year built)

ASME Code, Section III, Division 1: 1989 No I N/A
(edition) (addenda date) (class) (Code case no.)

Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)

Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.

Nom. Thickness (in.) — in. design thickness (in.) — Dia. ID (ft & in.) — Length overall (ft & in.) 14'-6.5"
When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) RP-1057	—
(2)	
(3)	
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(21)	
(22)	
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Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
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(48)	
(49)	
(50)	

Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 64 °F
(when applicable)

plemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is Jod on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. AP-1057 through AP-1057

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-10-01 Name Ionics, Incorporated Signed Don Parrish
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on Upper Housing Replacement Assembly and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-10-2001 Signed [Signature] Commissions 198314 in Pa 2245
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorsements) and state or prov. and no)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type CND-P-5003G01 Rev. 6 SA-312 TP 316 SA 182 TP 347 75,000 75,000 N/A 2001
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
8. Nom. Thickness (in.) design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Row 1 contains RP-1058.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 28-50 are empty.

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 (when applicable) at temp. 625°F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/98)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial No. RP-1058 through RP-1058

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-9-01 Name Ionics, Incorporated Signed Jon Parrish
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province
of Pennsylvania and employed by Factory Mutual Insurance Company
of Johnston, RI have inspected these items described in this Data Report on December 9, 2001 and state that to the
best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section
III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described
in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage
or loss of any kind arising from or connected with this inspection.

Date 12-9-2001 Signed [Signature] Commissions NB8214 BN Pressure
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

Pg. 1 of 2

1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of Installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Rev. 6 SA-312 TP 316 75,000 N/A 2001
(drawing number) (matl. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) — In. design thickness (in.) — Dia. ID (ft & in.) — Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) RP-1059	—
(2)	
(3)	
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(25)	

Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
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(45)	
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(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 64 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/98)

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1059 through RP-1059

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-9-01 Name Ionics Incorporated Signed Don Pasqua
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province
of Pennsylvania and employed by Factory Mutual Insurance Company
of Johnston, RI have inspected these items described in this Data Report on December 9, 2001 and state that to the
best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section
III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described
in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage
or loss of any kind arising from or connected with this inspection.

Date 12-9-2001 Signed [Signature] Commissions NB 2214 PA 10245-
(Authorized Nuclear Inspector) [Nat'l Bd. (incl. endorsements) and state or prov. and no]

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***

As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Rev. 6 SA-312 TP 316 75,000 N/A 2001
(drawing number) (matl. spec no.) (leakle strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) — In. design thickness (in.) — Dia. ID (ft & in.) — Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) RP-1060	
(2)	
(3)	
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Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
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(44)	
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(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 60 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/98)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1080 through RP-1080

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Under Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002

Date 12-7-01 Name Ionics Incorporated Signed D. S. [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 7, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-8-2001 Signed [Signature] Commissions 486214 PA RD245
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of Installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Rev. 6 SA-312 TP 316 75,000 N/A 2001
(drawing number) (mat'l. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) in. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical order
(1) RP-1061	—
(2)	
(3)	
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(23)	
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Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
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(47)	
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(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 66 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/98)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1061 through RP-1061

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002

Date 12-7-01 Name Ionics Incorporated Signed D. S. [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 7, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-7-2001 Signed [Signature] Commissions NR 314 and PA 2245
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

- Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
- Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT, 06095
(name and address of purchaser)
- Location of Installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI, 49043
(name and address)
- Type CND-E-5003G01 Rev. 6 SA-312 TP 316 75,000 N/A 2001
(drawing number) (mat'l. spec no.) (tensile strength) (CRN) (year built)
- ASME Code, Section III, Division 1: 1989 No I N/A
(edition) (addenda date) (class) (Code case no.)
- Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
- Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
- Nom. Thickness (in.) — In. design thickness (in.) — Dia. ID (ft & in.) — Length overall (ft & in.) 14'-6.5"
- When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) RP-1062	—
(2)	
(3)	
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Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
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(46)	
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(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 64
(when applicable)

*Supplemental information in the form of Ests, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007.

(7/88)

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1062 through RP-1062

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-6-01 Name Ionics Incorporated Signed D. Smith
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 6, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-6-2001 Signed [Signature] Commissions NS 031444 P 0245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-B-5003G01 Rev. 6 SA-312 TP 316 75,000 N/A 2001
(drawing number) (mat'l. spec no.) (pencil strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) in. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) RP-1063	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
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(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
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(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 65 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/58)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1063 through RP-1063

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

IPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-8-01 Name Ionics, Incorporated Signed Don Passia
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province
of Pennsylvania and employed by Factory Mutual Insurance Company
of Johnston, RI have inspected these items described in this Data Report on Upper Housing Replacement Assembly and state that to the
best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section
III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described
in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage
or loss of any kind arising from or connected with this inspection.

Date 12-8-2001 Signed Don Passia Commissions NS831420 P2241
(Authorized Nuclear Inspector) [Natl. Bd. (incl. endorsements) and state or prov. and no]

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 SA 182 TP 347 75,000 75,000 N/A 2001
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange. Manufactured on Ionics Contract 1149. Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) --- in. design thickness (in.) --- Dia. ID (ft & in.) --- Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order. Row 1: (1) RP-1064, ---

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 26-50 are empty.

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 62 °F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/88)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1064 through RP-1064

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-5-01 Name Ionics, Incorporated Signed D. [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 5, 2001, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-5-2001 Signed [Signature] Commissions NB 8314 & N PA 2245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
5. ASME Code, Section III, Division 1: 1989 No I N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange. Manufactured on Ionics Contract 1149. Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) in. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order. Row 1 contains RP-1065.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 1-50 are empty.

10. Design pressure 2485 psi. Temp. 650 F. Hydro. Test pressure 3200 at temp. 60 F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1065 through RP-1065

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Confirms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002

Date 12-3-01 Name Ionics Incorporated Signed D. Swanic
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johston, RI have inspected these items described in this Data Report on December 2, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-3-2001 Signed [Signature] Commissions NB 8314 RW [Signature]
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 SA 182 TP 347 75,000 75,000 N/A 2001
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
8. Nom. Thickness (in.) --- in. design thickness (in.) --- Dia. ID (ft & in.) --- Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. In Numerical order. Row 1: RP-1066, -

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. In Numerical Order. Rows 1-50 empty.

10. Design pressure 2485 psi. Temp. 650 F. Hydro. Test pressure 3200 at temp. 66 (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1066 through RP-1066

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-3-01 Name Ionics, Incorporated Signed Don Passand
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province
of Pennsylvania and employed by Factory Mutual Insurance Company
of Johnston, RI have inspected these items described in this Data Report on March 3, 2001 and state that to the
best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section
III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described
in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage
or loss of any kind arising from or connected with this inspection.

Date 12-3-01 Signed [Signature] Commissions 135314 PA 12245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of Installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
(drawing number) (matl. spec no.) (tenile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No I N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks - Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) in. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

	Part or Appurtenance Serial Number	National Board No. in Numerical order		Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1)	RP-1067		(26)		
(2)			(27)		
(3)			(28)		
(4)			(29)		
(5)			(30)		
(6)			(31)		
(7)			(32)		
(8)			(33)		
(9)			(34)		
(10)			(35)		
(11)			(36)		
(12)			(37)		
(13)			(38)		
(14)			(39)		
(15)			(40)		
(16)			(41)		
(17)			(42)		
(18)			(43)		
(19)			(44)		
(20)			(45)		
(21)			(46)		
(22)			(47)		
(23)			(48)		
(24)			(49)		
(25)			(50)		

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 65 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

(7/98)

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1067 through RP-1067

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-5-01 Name Ionics, Incorporated Signed Don Passino
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on Upper Housing Replacement Assembly and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-6-2001 Signed John J. Pappas Commissions NB 3314 N 12245
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorsements) and state or prov. and no)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT, 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
8. Nom. Thickness (in.) design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order. Row 1 contains RP-1068.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 1-50 are empty.

10 Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 66 °F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11. (2) information in items 2 and 3 on this Data Report is included on each sheet. (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(759)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1068 through RP-1068

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-1-01 Name Ionics Incorporated Signed D. Swannick
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 1, 01 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-1-2001 Signed [Signature] Commissions NB314 and PD 2245
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorsements) and state or prov. and no)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
ASME Code, Section III, Division 1: 1989 No I N/A
Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) --- In. design thickness (in.) --- Dia. ID (ft & in.) --- Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order. Row 1 contains RP-1069.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 26-50 are empty.

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 66 °F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/84)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1069 through RP-1069

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-4-01 Name Ionics, Incorporated Signed Don Perissin
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 4, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-4-2001 Signed [Signature] Commissions NA 5314 and PA 2245
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorsements) and state or prov. and no)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017 (name and address of NPT Certificate Holder)

Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT, 06095 (name and address of purchaser)

Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043 (name and address)

Type CND-E-5003G01 Rev. S SA-312 TP 316 75,000 N/A 2001 (drawing number) (part. spec no.) (tensile strength) (CRN) (year built)

ASME Code, Section III, Division 1: 1989 No. 1 N/A (edition) (addenda date) (class) (Code case no.)

Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A (no.)

Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange. Manufactured on Ionics Contract 1149. Supplied on Westinghouse Contract 4500070105.

3. Nom. Thickness (in.) in. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"

3. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. In Numerical order. Row 1: (1) RP-1070

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. In Numerical Order. Rows 26-50

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 66 °F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

(7/98)

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1070 through RP-1070

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11-30-01 Name Ionics Incorporated Signed D. Scamman
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on March 29, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-30-2001 Signed [Signature] Commissions 1088314 & 10882245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

Pg. 1 of 2

- 1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27280 Blue Star Memorial Highway, Covert, MI 49043
4. Type GND-E-5003G01 Rev. 5 SA-312 TP 316 SA 182 TP 347 75,000 75,000 N/A 2001
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange. Manufactured on Ionics Contract J149. Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) In. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. In Numerical order. Row 1 contains RP-1071.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. In Numerical Order. Rows 26-50 are empty.

10. Design pressure 2485 psi. Temp. 650 F. Hydro. Test pressure 3200 at temp. 66 F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/98) This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1071 through RP-1071

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11/30/01 Name Ionics Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on November 30, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-30-2001 Signed [Signature] Commission No. 105214 EV P2245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of Installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
(drawing number) (mat'l spec no.) (tensile strength) (CRW) (year built)
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) --- in. design thickness (in.) --- Dia. ID (ft & in.) --- Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) <u>RP-1072</u>	<u>---</u>
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
(14)	
(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
(37)	
(38)	
(39)	
(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 62
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 9 on this Data Report included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07004

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FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1072 through RP-1072

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-3-01 Name Ionics, Incorporated Signed Don Passini
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 2, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-3-2001 Signed [Signature] Commissions NB 8214 P 2245
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company I.L.C. Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type CND-E-S003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
8. Nom. Thickness (in.) --- In. design thickness (in.) --- Dia. ID (ft & in.) --- Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order. Row 1: RP-1073, ---

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 26-50 are empty.

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 65 °F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/91)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1073 through RP-1073

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002

Date 12-1-01 Name Ionics, Incorporated Signed D.S. [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 1, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-1-2001 Signed [Signature] Commissions 424314 and P2245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

Pg. 1 of 2

1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
(drawing number) (matl. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No I N/A
(edition) (addenda data) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) — In. design thickness (in.) — Dia. ID (ft & in.) — Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical order
(1) <u>RP-1074</u>	<u>—</u>
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
(14)	
(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
(37)	
(38)	
(39)	
(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 66 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/98) This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1074 through RP-1074

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-5-01 Name Ionics Incorporated Signed Don Perini
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 5, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-5-2001 Signed Robert J. ... Commissions 458314 & N B 2245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 SA 182 TP 347 75,000 75,000 N/A 2001
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange. Manufactured on Ionics Contract 1149. Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) ___ in. design thickness (in.) ___ Dia. ID (ft & in.) ___ Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order. Row 1 contains RP-1075.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 26-50 are empty.

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 63 °F (when applicable)

*Supplemental Information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(75F)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1075 through RP-1075

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-1-01 Name Ionics Incorporated Signed D. Swannick
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-1-2001 Signed Robert J. ... Commissions NS 8314 No. 12245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017 (name and address of NPT Certificate Holder)

Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT, 06095 (name and address of purchaser)

Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043 (name and address)

Type CND-E-5003G01 Rev. 5 SA-312 TP 316 SA 182 TP 347 75,000 75,000 N/A 2001 (drawing number) (mat'l. spec no.) (tensile strength) (CRN) (year built)

ASME Code, Section III, Division 1: 1989 No 1 N/A (edition) (addenda date) (class) (Code case no.)

Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A (no.)

Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange. Manufactured on Ionics Contract U49. Supplied on Westinghouse Contract 4500070105.

Nom. Thickness (in.) In. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5" When applicable, Certificate Holder Data Reports are attached for each item of this report.

Table with 4 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order, Part or Appurtenance Serial Number, National Board No. in Numerical Order. Row 1 contains RP-1076.

Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 71 °F (when applicable)

Additional information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1076 through RP-1076

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11/27/01 Name Ionics Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 27, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section II, Division 1. Each part listed has been authorized for stamping on the data shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-27-2001 Signed [Signature] Commissions NS 8314 and PA 2245
(Authorized Nuclear Inspector) (Nat'l Bd. (incl. endorsements) and state or prov. and no)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017 (name and address of NPT Certificate Holder)

Manufactured for Westinghouse Electric Company, I.C. Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095 (name and address of purchaser)

Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49013 (name and address)

Type CND-F-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001 (drawing number) (mat'l. spec no.) (tensile strength) (CRN) (year built)

ASME Code, Section III, Division I: 1989 No J N/A (edition) (addenda data) (class) (Code case no.)

Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A (no.)

Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange. Manufactured on Ionics Contract 1149. Applied on Westinghouse Contract 4500070105.

3. Nom. Thickness (in.) --- in. design thickness (in.) --- Dia. ID (ft & In.) --- Length overall (ft & In.) 14'-6.5"
3. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order. Row 1: RP-1077.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 26-50.

10. Design pressure 2415 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 650 °F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1077 through RP-1077

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 28, 2002
Date 11/25/01 Name Ionics, Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on November 24, 2001 and state that to the best of my knowledge and belief the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-25-2001 Signed [Signature] Commissions NB 5314 PA 2245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2-CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company, J.C. Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of installation Conners Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Reducer SA-312 TP 316 75,000 N/A 2001
(drawing number) (matl. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Div. 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) ---- in. design thickness (in.) ---- Dia. ID (ft & in.) ---- Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical order
(1) <u>RP-1078</u>	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
(14)	
(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
(37)	
(38)	
(39)	
(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2465 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 62 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in Items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. AP-1078 through AP-1078

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. J-2974-1 Expires March 26, 2002
Date 11/24/01 Name Ionics, Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected those items described in this Data Report on November 24, 2001, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed here has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-24-2001 Signed [Signature] Commissions NA2214 and PA2245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type CND-E-5003G01 Rev. 6 SA-312 TP 316 SA 182 TP 347 75,000 75,000 N/A 2001
5. ASME Code, Section III, Division 1: 1989 No I N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
8. Nom. Thickness (in.) design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order. Row 1 contains RP-1079.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 26-50 are empty.

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 67° F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/98) This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1079 through RP-1079

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-9-01 Name Ionic, Incorporated Signed D. S. [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 9, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-9-2001 Signed [Signature] Commissions MS-2245
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section II
Not to Exceed One day's production

Pg. 1 of 2

Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)

Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)

Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)

Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
(drawing number) (mat'l. spec no.) (tensile strength) (CRN) (year built)

ASME Code, Section III, Division 1: 1989 No I N/A
(edition) (addenda date) (class) (Code case no.)

Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)

Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.

8. Nom. Thickness (in.) --- in. design thickness (in.) --- Dia. ID (ft & in.) --- Length overall (ft & in.) 14'-6.5"

9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order	Part or Appurtenance Serial Number	National Board No. In Numerical Order
(1) RP-1080	---	(26)	
(2)		(27)	
(3)		(28)	
(4)		(29)	
(5)		(30)	
(6)		(31)	
(7)		(32)	
(8)		(33)	
(9)		(34)	
(10)		(35)	
(11)		(36)	
(12)		(37)	
(13)		(38)	
(14)		(39)	
(15)		(40)	
(16)		(41)	
(17)		(42)	
(18)		(43)	
(19)		(44)	
(20)		(45)	
(21)		(46)	
(22)		(47)	
(23)		(48)	
(24)		(49)	
(25)		(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 64 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

(7/98)

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1080 through RP-1080

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 28 2002
Date 11/24/01 Name Ionics Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors in the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on March 25, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-26-2001 Signed [Signature] Commissions 148314 and P2245
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorse letters) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

Pg. 1 of 2

1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Buisness Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
(drawing number) (mat'l. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No I N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) in. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical order
(1) RP-1081	---
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
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(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
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(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 64 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in Rems 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/98)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1081 through RP-1081

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
 Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002

Date 11-21-01 Name Ionics Incorporated Signed RK Hendey
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on November 21, 2001, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-21-2001 Signed Robert J. ... Commissions NB 8314 RN P2245
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT, 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI, 49043
4. Type CND-E-5003G01, SA-312 TP 316, SA 182 TP 347, 75,000, N/A, 2001
5. ASME Code, Section III, Division 1: 1989, No, 1, N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A, Revision N/A, Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange. Manufactured on Ionics Contract 1149. Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Report: are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. In Numerical order. Row 1 contains RP-1082.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. In Numerical Order. Rows 26-50 are empty.

10. Design pressure 2495 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 68 °F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1082 through RP-1082

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11-20-01 Name Ionics Incorporated Signed RK [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on March 20, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-20-2001 signed [Signature] Commissions 138314 DW P2245
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT, 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 SA 182 TP 347 75,000 75,000 N/A 2001
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange. Manufactured on Ionics Contract 1149. Supplied on Westinghouse Contract 450070105.
8. Nom. Thickness (in.) in. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. In Numerical order. Row 1: (1) RP-1083, (2) through (25) empty.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. In Numerical Order. Rows (26) through (50) empty.

10. Design pressure 2485 psi. Temp. 650 F. Hydro. Test pressure 3200 at temp. 64 F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11. (2) information in items 2 and 3 on this Data Report is included on each sheet. (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/99)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1083 through RP-1083

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-1-01 Name Ionics Incorporated Signed D. S. [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 1, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-1-2001 Signed [Signature] Commissions NA K314RW P2241
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT, 06095
(name and address of purchaser)
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI, 49043
(name and address)
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
(drawing number) (mat'l. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) in. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical order
(1) RP-1084	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
(14)	
(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
(37)	
(38)	
(39)	
(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 64 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1084 through RP-1084

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11-17-01 Name Ionics, Incorporated Signed RKH
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on November 17, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-17-2001 Signed [Signature] Commissions NB 5314 AN Pa 2245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-50 BGO1 Rev. 5 SA-312 TP 316 75,000 N/A 2001
(drawing or mark) (mat'l. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Sec on III, Division 1: 1989 No I N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper flange Replacament Assembly consisting of upper flange welded to a pipe and the pipe welded to a raducer & flange.
Manufactured on Ionics Contract 1149.
Supplied in Westinghouse Contract 4500070105.
8. Nom. Thickness (t.) — in. design thickness (tn.) — Dia. ID (ft & in.) — Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) P-1085	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
(14)	
(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
(37)	
(38)	
(39)	
(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp 58°F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in Items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N -2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1085 through RP-1085

CERTIFICATION OF DESIGN

Design specification certified by Not Applicable P.E. State Reg. No.
(when applicable)
Design report certified by Not Applicable P.E. State Reg. No.
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date Nov. 16, 2001 Name Ionics Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on March 15, 2002 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the data shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-16-2001 Signed [Signature] Commissions NB-314 PA 2245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
(drawing number) (matl. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) --- In. design thickness (in.) --- Dia. ID (ft & in.) --- Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) <u>RP-1086</u>	<u>---</u>
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
(14)	
(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
(37)	
(38)	
(39)	
(40)	
(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 650 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1086 through RP-1086

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11-19-01 Name Ionics Incorporated Signed R. Kennedy
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on November 19, 2001, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-19-2001 Signed [Signature] Commissions 182314 AN P2245
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
(drawing number) (mat'l. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) in. design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) <u>RP-1087</u>	<u> </u>
(2) <u> </u>	<u> </u>
(3) <u> </u>	<u> </u>
(4) <u> </u>	<u> </u>
(5) <u> </u>	<u> </u>
(6) <u> </u>	<u> </u>
(7) <u> </u>	<u> </u>
(8) <u> </u>	<u> </u>
(9) <u> </u>	<u> </u>
(10) <u> </u>	<u> </u>
(11) <u> </u>	<u> </u>
(12) <u> </u>	<u> </u>
(13) <u> </u>	<u> </u>
(14) <u> </u>	<u> </u>
(15) <u> </u>	<u> </u>
(16) <u> </u>	<u> </u>
(17) <u> </u>	<u> </u>
(18) <u> </u>	<u> </u>
(19) <u> </u>	<u> </u>
(20) <u> </u>	<u> </u>
(21) <u> </u>	<u> </u>
(22) <u> </u>	<u> </u>
(23) <u> </u>	<u> </u>
(24) <u> </u>	<u> </u>
(25) <u> </u>	<u> </u>

Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26) <u> </u>	<u> </u>
(27) <u> </u>	<u> </u>
(28) <u> </u>	<u> </u>
(29) <u> </u>	<u> </u>
(30) <u> </u>	<u> </u>
(31) <u> </u>	<u> </u>
(32) <u> </u>	<u> </u>
(33) <u> </u>	<u> </u>
(34) <u> </u>	<u> </u>
(35) <u> </u>	<u> </u>
(36) <u> </u>	<u> </u>
(37) <u> </u>	<u> </u>
(38) <u> </u>	<u> </u>
(39) <u> </u>	<u> </u>
(40) <u> </u>	<u> </u>
(41) <u> </u>	<u> </u>
(42) <u> </u>	<u> </u>
(43) <u> </u>	<u> </u>
(44) <u> </u>	<u> </u>
(45) <u> </u>	<u> </u>
(46) <u> </u>	<u> </u>
(47) <u> </u>	<u> </u>
(48) <u> </u>	<u> </u>
(49) <u> </u>	<u> </u>
(50) <u> </u>	<u> </u>

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 64°F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/88)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1087 through RP-1087

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11-14-01 Name Ionics, Incorporated Signed RKHendy
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province
of Pennsylvania and employed by Factory Mutual Insurance Company
of Johnston, RI have inspected these items described in this Data Report on November 4, 2001 and state that to the
best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section
II, Division 1. Each part listed has been authorized for sampling on the data shown above.
By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described
in this Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage
or loss of any kind arising from or connected with this inspection.

Date 11-14-2001 Signed [Signature] Commissions 13834 AW P2245
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no.]

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
3. Location of Installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 SA 182 TP 347 75,000 75,000 N/A 2001
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
8. Nom. Thickness (in.) --- in. design thickness (in.) --- Dia. ID (ft & in.) --- Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order. Row 1: (1) RP-1088, -

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 26-50: (26) through (50), empty cells.

10. Design pressure 2485 psi. Temp. 650 F. Hydro: Test pressure 3200 at temp. 66 F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/98)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1088 through RP-1088

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11-14-01 Name Ionics Incorporated Signed RK Handley
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on November 14, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-15-01 Signed [Signature] Commissions NB8314AN P2245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

FOR 1 N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type CND-E-5003G01 Rev. SA-312 TP 316 SA 182 TP 347 75,000 N/A 2001
5. ASME Code, Section III, Division 1: 1989 No I N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks Upper Housing Reinforcement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
8. Nom. Thickness (in.) design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order. Row 1 contains RP-1089.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 26-50 are empty.

10. Design pressure 2485 psl. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 66 °F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/58)

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1089 through RP-1089

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11/13/01 Name Ionics Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on November 13, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the data shown above. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with the inspection.

Date 11-13-2001 Signed [Signature] Commissions NB-314 PA 2225
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)

Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)

Location of Installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49013
(name and address)

Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
(drawing number) (mat'l spec no.) (tensile strength) (CRN) (year built)

ASME Code, Section III, Division 1: 1989 No I N/A
(edition) (addenda date) (class) (Code case no.)

Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)

Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.

Nom. Thickness (in.) ---- in. design thickness (in.) ---- Dia. ID (ft & in.) ---- Length overall (ft & in.) 14'-6.5"

When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) <u>RP-1090</u>	
(2)	
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Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
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(34)	
(35)	
(36)	
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(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 62 °F
(when applicable)

Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1090 through RP-1090

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11/11/01 Name Ionics, Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on November 11, 2001, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-11-2001 Signed [Signature] Commissions NB8314 AN PA 2245
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES* As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type SA-312 TP 316, SA 182 TP 34, 75 000, N/A, 2001
5. ASME Code, Section III, Division 1: 1989, No, 1, N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A, Revision N/A, Date N/A
7. Remarks Upper Housing J3 Placement Assembly, consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
8. Nom. Thickness (in.) design thickness (in.) Dia. ID (ft & in.) Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate holders' Data Reports are attached for each item of this report:

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. In Numerical order. Row 1 contains RP-1091.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. In Numerical Order. Rows 1 through 25 are empty.

10. Design pressure 2415 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 66 °F (when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(788) This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1091 through RP-1091

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11/12/01 Issued to Ionics Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on November 12, 2001 and state that to the best of my knowledge and belief the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-12-01 Signed [Signature] Commissions NB 8319 & N P 2295
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT, 06095
(name and address of purchaser)
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI, 49043
(name and address)
4. Type CND-E-5003G01U rev. 5 SA-312 TP-16 75,000 N/A 2001
(drawing number) (matl. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured per Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) 1/2 Jn. design thickness (in.) 1/2 Dia. ID (R & in.) 14'-6.5" Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) <u>RP-1032</u>	
(2)	
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Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
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(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 64 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in Items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

(7/98)

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1092 through RP-1092

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2274-1 Expires March 26, 2002

Date Nov 15, 2001 Name Ionics Incorporated Signed RKH
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on November 15, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, either the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-15-2001 Signed [Signature] Commissions 113 8314 & 113 P-2241
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorsements) and state or prov. and no)

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the provisions of the ASME Code, Section III Not to Exceed One day's production

- 1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT, 06095
3. Location of Installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
4. Type CND-E-5003G01 Re: SA-312 TP 316, SA 182 TP 347, 75.000, 75.000, N/A, 2001
5. ASME Code, Section III, Division 1: 1989, No, 1, N/A
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A, Revision N/A, Date N/A
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
8. Nom. Thickness (in.) 1/2, Design thickness (in.) 1/2, Dia. ID (ft & in.) 14, Length overall (ft & in.) 14'-6.5"

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical order. Row 1: RP-1093.

Table with 2 columns: Part or Appurtenance Serial Number, National Board No. in Numerical Order. Rows 26-50.

0. Design pressure 2485 psi, Temp. 650 F, Hydro. Test pressure 3200 at temp. 56 F (when applicable)

Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1093 through RP-1093

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

I hereby certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11/6/01 Name Ionics Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid Commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company Johnston, RI have inspected these items described in this Data Report on November 6, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-6-2001 Signed [Signature] Commissions NB-314 & PA-2261
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of Installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
(drawing number) (matl. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. II only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) -- in. design thickness (in.) -- Dia. ID (ft & in.) -- Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical Order
(1) RP-1054	
(2)	
(3)	
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(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
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(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psil Temp. 650 °F. Hydro. Test pressure 3200 at temp. 62 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

(7/88)

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1094 through RP-1094

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11/4/01 Name Ionics Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province
of Pennsylvania and employed by Factory Mutual Insurance Company
of Johnston, RI have inspected these items described in this Data Report on November 4, 2001, and state that to the
best of my knowledge and belief, the Certificate holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section
III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described
in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage
or loss of any kind arising from or connected with this inspection.

Date 11-04-01 Signed [Signature] Commissions NB 6314 and PA 2245
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Rev. 5 SA-312 TP 316 75,000 N/A 2001
(drawing number) (mat'l spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) --- in. design thickness (in.) --- Dia. ID (ft & in.) --- Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report

Part or Appurtenance Serial Number	National Board No. in Numerical order
(1) RP-1095	---
(2)	
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(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)	
(27)	
(28)	
(29)	
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(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 62 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1095 through RP-1095

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11/1/01 Name Ionics, Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on November 1, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section II, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11-1-2001 Signed [Signature] Commissions NB314AN P0245
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

**REVISED 11-21-01

Pg. 1 of 2

1. Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-E-5003G01 Rev. 3 SA-312 TP 316 75,000 N/A 2001
(drawing number) (mat'l. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No I N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) --- n. design thickness (in.) --- Dia. ID (ft & in.) --- Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(1) RP-109i	---
(2)	---
(3)	---
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Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)	---
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(42)	---
(43)	---
(44)	---
(45)	---
(46)	---
(47)	---
(48)	---
(49)	---
(50)	---

10. Design pressure **2485 p.s.i. Temp. 650 °F. Hydro. Test pressure 3200 psig at temp. 62 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in Items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(798) This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

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FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1096 through RP-1096

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 11-21-01 Name Ionic, Incorporated Signed RKH
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province
of Pennsylvania and employed by Factory Mutual Insurance Company
of Johnston, RI have inspected these items described in this Data Report on 2001-20-201 and state that to the
best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section
III, Division 1. Each part listed has been authorized for stamping on the date shown above.
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described
in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage
or loss of any kind arising from or connected with this inspection.

Date 11-20-2001 Signed [Signature] Commissions NB 8314 AN P 2245
(Authorized Nuclear Inspector) [Nat'l. Bd. (incl. endorsements) and state or prov. and no]

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

Revised 10-30-01

Pg. 1 of 2

1. Manufactured and certified by Ionics Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania 15017
(name and address of NPT Certificate Holder)
2. Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)
3. Location of Installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)
4. Type CND-B-5003G01 Rev. 5 SA-213 TP 316 75,000 N/A 2001
(drawing number) (mat'l. spec no.) (tensile strength) (CRN) (year built)
5. ASME Code, Section III, Division 1: 1989 No 1 N/A
(edition) (addenda date) (class) (Code case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
(no.)
7. Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.
8. Nom. Thickness (in.) — in. design thickness (in.) — Dia. ID (ft & in.) — Length overall (ft & in.) 14'-6.5"
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. in Numerical order
(1) <u>RP-1097</u>	<u>—</u>
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
(8)	
(9)	
(10)	
(11)	
(12)	
(13)	
(14)	
(15)	
(16)	
(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. in Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
(36)	
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(39)	
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(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

10. Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 62 °F
(when applicable)

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information is items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(7/88)

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-1097 through RP-1097

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Cert. No. _____
(when applicable)
Design report certified by Not Applicable P.E. State _____ Cert. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26 2002

Date 10/30/01 Name Ionics Incorporated Signed [Signature]
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on October 27, 2001, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 10-30-2001 Signed [Signature] Commissions N-2974-1 P-2245
(Authorized Nuclear Inspector) (Natl. Bd. (incl. endorsements) and state or prov. and no)

**FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES***
As Required by the provisions of the ASME Code, Section III
Not to Exceed One day's production

Pg. 1 of 2

Manufactured and certified by Ionics, Incorporated, Bridgeville Division, 3039 Washington Pike, Bridgeville, Pennsylvania, 15017
(name and address of NPT Certificate Holder)

Manufactured for Westinghouse Electric Company LLC, Nuclear Services Business Unit, 2000 Day Hill Road, Windsor, CT 06095
(name and address of purchaser)

Location of installation Consumers Energy Company, Palisades Generating Plant, 27780 Blue Star Memorial Highway, Covert, MI 49043
(name and address)

Type <u>CND-E-5003G01 Rev. 6</u> (drawing number)	<u>SA-312 TP 316</u> <u>SA 182 TP 347</u> (mat'l. spec no.)	<u>75,000</u> <u>75,000</u> (tensile strength)	<u>N/A</u> (CRN)	<u>2001</u> (year built)
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ASME Code, Section III, Division 1: <u>1989</u> (edition)	<u>No</u> (addenda date)	<u>1</u> (class)	<u>N/A</u> (Code case no.)
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Fabricated in accordance with Const. Spec. (Div. 2 only) N/A (no.) Revision N/A Date N/A

Remarks Upper Housing Replacement Assembly consisting of upper flange welded to a pipe and the pipe welded to a reducer & flange.
Manufactured on Ionics Contract 1149.
Supplied on Westinghouse Contract 4500070105.

Nom. Thickness (In.) In. design thickness (In.) Dia. ID (ft & In.) Length overall (ft & In.) 14'-6.5"

When applicable, Certificate Holders' Data Reports are attached for each item of this report:

Part or Appurtenance Serial Number	National Board No. In Numerical order
(1) RP-2005	
(2)	
(3)	
(4)	
(5)	
(6)	
(7)	
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(17)	
(18)	
(19)	
(20)	
(21)	
(22)	
(23)	
(24)	
(25)	

Part or Appurtenance Serial Number	National Board No. In Numerical Order
(26)	
(27)	
(28)	
(29)	
(30)	
(31)	
(32)	
(33)	
(34)	
(35)	
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(41)	
(42)	
(43)	
(44)	
(45)	
(46)	
(47)	
(48)	
(49)	
(50)	

Design pressure 2485 psi. Temp. 650 °F. Hydro. Test pressure 3200 at temp. 70 F
(when applicable)

Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in Items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(8)

This form (E00040) may be obtained from the Order dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

FORM N-2 (Back - Pg 2 of 2)

Certificate Holder's Serial Nos. RP-2005 through RP-2005

CERTIFICATION OF DESIGN

Design specifications certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)
Design report* certified by Not Applicable P.E. State _____ Reg. No. _____
(when applicable)

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) Upper Housing Replacement Assembly
Conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. N-2974-1 Expires March 26, 2002
Date 12-14-01 Name Ionics, Incorporated Signed Jon Passia
(NPT Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State and Province of Pennsylvania and employed by Factory Mutual Insurance Company of Johnston, RI have inspected these items described in this Data Report on December 14, 2001 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III, Division 1. Each part listed has been authorized for stamping on the date shown above. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 12-14-2001 Signed [Signature] Commissions NSB 14 2001 P2245
(Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no)

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company
Name
27780 Blue Star Hwy. Covert, MI
Address

Date January 03, 2001
Sheet 1 of 1

2. Plant Palisades Nuclear Plant
Name
27780 Blue Star Hwy. Covert, MI
Address

Unit 1
W.O. # 24113483
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy
Name
27780 Blue Star Hwy. Covert, MI
Address

Type Code Symbol Stamp N/A
Authorization No. N/A
Expiration Date N/A

4. Identification of System Engineered Safeguards (ESS)

5. (a) Applicable Construction Code ASME B31.1, 1955 Edition, n/a Addenda, n/a Code Case
Year
(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89
Year
(c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Shaft	Crane Nuclear	D0508	n/a	PO# 366553/1	01	Installed	No
Gland	Crane Nuclear	D0511	n/a	PO# 366553/6	01	Installed	No
Cartridge	Crane Nuclear	D0505	n/a	PO# 366553/1	01	Installed	No
Stuffing Box	Crane Nuclear	D0507	n/a	PO# 366553/3	01	Installed	No

7. Description of Work Modify packing gland per EAP-2001-0021

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Exempt
Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 number of sheets is recorded at the top of this form.



24113483

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Joseph E. Rhoad Senior Engineer Date January 03, 2002
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to 01/03/02, 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.

Inspector's Signature R. E. Blake Commissions MT - 762 ABNT
National Board, State, Province, and Endorsements

Date January 03, 2002

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company
Name

Date JANUARY 03, 2002

27780 Blue Star Hwy, Covert, MI
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant
Name

Unit 1

27780 Blue Star Hwy, Covert, MI
Address

W.O.# 24113484
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy, Covert, MI
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Engineered Safeguards (ESS)

5. (a) Applicable Construction Code ASME B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89
Year

(c) Applicable Section XI Code Cases None

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
SHAFT	Crane Nuclear	D0509	n/a	PO# 60366553/6	01	Installed	No
Gland	Crane Nuclear	D0510	n/a	PO# 60366553/6	01	Installed	No
Cartridge	Crane Nuclear	D0504	n/a	PO# 60366553/1	01	Installed	No
Stuffing Box	Crane Nuclear	D0506	n/a	PO# 60366553/3	01	Installed	No

7. Description of Work Modify packing gland per EAR. 2001. 0021.

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Exempt

Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.



24113484

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for additional remarks or data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Joseph E. Shred Senior Engineer Date January 03 ~~2001~~ 2002
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company

of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to 01/03/02, 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.

[Signature] Commissions MI -762 ABNT
Inspector's Signature National Board, State, Province, and Endorsements

Date January 03, 2002

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company
Name

Date FEBRUARY 18, 2002

27780 Blue Star Hwy, Covert, MI
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant
Name

Unit 1

27780 Blue Star Hwy, Covert, MI
Address

W.O.# 24114093
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy, Covert, MI
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System SPENT FUEL (SFP)

5. (a) Applicable Construction Code ASME B31.1, 55 Edition, NONE Addenda, NONE Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89
Year

(c) Applicable Section XI Code Cases NONE

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
NUT				PO# G0369321.1	(M) 2.8.02		
NUT	NOVA MACH. PRODUCTS	HT# 723581	NIA	PO# G0369321.2	Ø1	INSTALLED	NO
BOLT	NOVA MACH. PRODUCTS	HT# 35566	NIA	PO# G0369321.1	Ø1	INSTALLED	NO

7. Description of Work REPLACE hanger HGE/HC4-RB7.1 bolt with longer piece.

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Exempt
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.



FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date March 01, 2002
Name
27780 Blue Star Hwy. Covert, MI
Address

2. Plant Palisades Nuclear Plant Unit 1
Name
27780 Blue Star Hwy. Covert, MI
Address W.O.# 24114160
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy Type Code Symbol Stamp N/A
Name Authorization No. N/A
27780 Blue Star Hwy. Covert, MI Expiration Date N/A
Address

4. Identification of System Primary Coolant (PCS)

5. (a) Applicable Construction Code ASME III, 1986 Edition, 1988 Addenda, None Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89
Year

(c) Applicable Section XI Code Cases N.416.1

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)

7. Description of Work Install CRA Seal Housings onto Reactor Vessel N-52

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Exempt
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.



24114160

FORM NIS-2 (Back)

9. Remarks See manufacturer data reports attached.
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed Joseph E. Shirod, Senior Eng. Date March 30, 2002
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R.I. have inspected the components described in this Owner's Report during the period 11/20/99 to 02/28/01, 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.

[Signature] Commissions MI-762 ABNT
Inspector's Signature National Board, State, Province, and Endorsements

Date Feb. 28, 2002

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed or Installed	ASME Code Stamped (Yes or No)
CRD Seal Housing	Comb. Eng. Nuclear	201	2880	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	202	2881	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	203	2882	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	204	2883	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	205	2884	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	206	2885	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	207	2886	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	210	2889	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	212	2891	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	214	2893	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	215	2894	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	221	2895	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	218	2900	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	220	2902	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	231	2903	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	235	2905	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	225	2907	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	226	2908	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	227	2909	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	228	2910	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	229	2911	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	230	2912	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	236	2913	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	237	2914	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	238	2915	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	239	2916	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	240	2917	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	241	2918	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	242	2919	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	245	2922	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	246	2923	PO # GO321653	01	Installed	Y
CRD Seal Housing	Comb. Eng. Nuclear	247	2924	PO # GO321653	01	Installed	Y

**FORM N-2 OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES**

As Required by the Provisions of the ASME Code, Section III, Division 1
Not to Exceed one Day's Production

1. Manufactured and certified by CE Nuclear Power LLC, 55 Old Dover Road, Newington, NH 03801.

2. Manufactured for CE Nuclear Power LLC., 2000 Day Hill Road, Windsor, CT 06095-0500.

3. Location of installation Consumers Energy Company, Palisades Station, Michigan

4. Type CND-E-4996 Rev. 05 * SEE BACK * SEE BACK N/A 2001
(Drawing no.) (mat'l spec. no.) (tensile strength) (cm) (year built)

5. ASME Code, Section III: 1986 1988 I NB None
(edition) (addenda) (class) (subsection) (code case)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A

7. Remarks: CRDM Seal Housing Assemblies

8. Nom. thickness (in.) * See Back min. design thickness (in.) * See Back Dia. ID (ft & in.) * See Back length overall (ft & in.) * See Back

9. When applicable, Certificate Holders' data reports are for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER	Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER
(1) 201	2880	(18) 223	2897
(2) 202	2881	(19)	
(3) 203	2882	(20)	
(4) 204	2883	(21)	
(5) 205	2884	(22)	
(6) 206	2885	(23)	
(7) 207	2886	(24)	
(8) 208	2887	(25)	
(9) 209	2888	(26)	
(10) 210	2889	(27)	
(11) 211	2890	(28)	
(12) 212	2891	(29)	
(13) 213	2892	(30)	
(14) 214	2893	(31)	
(15) 215	2894	(32)	
(16) 221	2895	(33)	
(17) 222	2896	(34)	

10. Design pressure 2500 psi

Temp 600 °F

Hydro. test pressure 3125 psi at temp 70 °F

CERTIFICATE OF DESIGN

Design specification certified by N/A P.E. state N/A Reg. no. N/A
 (when applicable)
 Design report certified by N/A P.E. state N/A Reg. no. N/A
 (when applicable)

CERTIFICATE OF SHOP INSPECTION

We certify that the statements made in this report are correct and that this (these) CRDM Seal Housing assemblies conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N-2041 Expires February 20, 2002

Date 2/10/01 Name CE Nuclear Power LLC
 (NPT Certificate Holder)

Signed [Signature]
 (authorized representative)

CERTIFICATE OF SHOP 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 New Hampshire and employed by H. S. B. I. & I. Co. of Hartford, CT have inspected these items described in this data report on 2/10/01 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above. By signing this Certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this data report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 2/10/01 Signed [Signature] Commission NH202 "N"
 (N B endorsement(s) state or prov and no)

MATERIAL	TENSILE	NOMINAL THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
SB-166 NO6600 Access Tube Flange	80,000	.120"	.115"	1.26"	2"
SB-167 NO6600 Access Tube	80,000	.120"	.108"	1.26"	39.50"
SB-166 NO6600 Seal Housing	80,000	.28	.26	2.06	11.38

FORM N-2 OR NPT CERTIFICATE HOLDERS DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES
 As Required by the Provisions of the ASME Code, Section III, Division 1
 Not to Exceed one Day's Production

1. Manufactured and certified by CE Nuclear Power LLC, 55 Old Dover Road, Newington, NH 03801.

2. Manufactured for CE Nuclear Power LLC, 2000 Day Hill Road, Windsor, CT 06095-0500.

3. Location of installation Consumers Energy Company, Fallisides Station, Michigan

4. Type CND-E-220 Rev. 03 ° SEE BACK. ° SEE BACK. N/A. 2001
 (Drawing no.) (part spec. no.) (tensile strength) (cm) (year built)

5. ASME Code, Section III: 1986 1988- 1 None
 (edition) (addenda) (class) (sub-section) (code case)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A

7. Remarks: CRDM Seal Housing Assemblies

8. Nom. thickness (in.) ° See Back min. design thickness (in.) ° See Back Dim. ID (in.) ° See Back Height overall (ft & in.) ° See Back

9. When applicable, Certificate Holders' data reports are for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER	Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER
(1) 216	2898	(14)	
(2) 217	2899	(17)	
(3) 218	2900	(24)	
(4) 219	2901	(21)	
(5) 220	2902	(21)	
(6) 231	2903	(23)	
(7) 232	2904	(24)	
(8) 235	2905	(23)	
(9)		(24)	
(10)		(27)	
(11)		(28)	
(12)		(29)	
(13)		(29)	
(14)		(31)	
(15)		(32)	
(16)		(37)	
(17)		(40)	

10. Design pressure 2500 psi Temp 600 °F Hydro. test pressure 3125 psi at temp 70 °F

FORM N-2 (back)

Part Serial No. 216 thru 220 & 231, 232, 235

CERTIFICATE OF DESIGN

Design specification certified by: N/A P.E. state: N/A Reg. no. N/A
 (when applicable)
 Design report certified by: N/A P.E. state: N/A Reg. no. N/A
 (when applicable)

CERTIFICATE OF SHOP INSPECTION

We certify that the statements made in this report are correct and that this (these) CRDM Seal Housing assemblies conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no: N-2041 Expires February 28, 2002

Date: 2/16/01 Name: CE Nuclear Power LLC
 (NPT Certificate Holder)

Signed: [Signature]
 (authorized representative)

CERTIFICATE OF SHOP 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 New Hampshire and employed by H. S. R. I. Co. of Hartford, CT have inspected these items described in this data report on 2/16/01 and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the date shown above.

By signing this Certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this data report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date: 2/16/01 Signed: [Signature] Commission: NH202 "N"
 in the endorsement(s) state or prov and no)

MATERIAL	TENSILE	NOMINAL THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
SB-166 NO6600 Access Tube Flange	80,000	.120"	.115"	1.26"	2"
SB-167 NO6600 Access Tube	80,000	.120"	.108"	1.26"	39.50"
SB-166 NO6600 Seal Housing	80,000	.28	.26	2.06	11.38

**FORM N-2 OR NPT CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL
NUCLEAR PARTS AND APPURTENANCES**
As Required by the Provisions of the ASME Code, Section III, Division 1
Not to Exceed one Day's Production

1. Manufactured and certified by CE Nuclear Power LLC, 55 Old Dover Road, Newington, NH 03801.
2. Manufactured for CE Nuclear Power LLC, 2000 Day Hill Road, Windsor, CT 06095-0500.
3. Location of installation: Consumers Energy Company, Palisades Station, Michigan
4. Type CND-E-4996 Rev. 05 * SEE BACK * SEE BACK N/A 2001
(Drawing no.) (mat'l spec. no.) (tensile strength) (cm) (year built)
5. ASME Code, Section III: 1986 1988 I NB None
(edition) (addenda) (class) (subsection) (code case)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) N/A Revision N/A Date N/A
7. Remarks: CRDM Seal Housing Assemblies
8. Nom. thickness (in.) * See Back min. design thickness (in.) * See Back Dia. ID (R & in.) * See Back length overall (ft & in.) * See Back
9. When applicable, Certificate Holders' data reports are for each item of this report:

Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER	Part or Appurtenance Serial Number ASSEMBLY NUMBER	MFG SERIAL NUMBER
(1) 224	2906	(18) 246	2923
(2) 225	2907	(19) 247	2924
(3) 226	2908	(20)	
(4) 227	2909	(21)	
(5) 228	2910	(22)	
(6) 229	2911	(23)	
(7) 230	2912	(24)	
(8) 236	2913	(25)	
(9) 237	2914	(26)	
(10) 238	2915	(27)	
(11) 239	2916	(28)	
(12) 240	2917	(29)	
(13) 241	2918	(30)	
(14) 242	2919	(31)	
(15) 243	2920	(32)	
(16) 244	2921	(33)	
(17) 245	2922	(34)	

10. Design pressure 2500 psi Temp 600 °F Hydro. test pressure 3125 psi at temp 70 °F

Part Serial No. 224 thru 230 & 236 thru 247

CERTIFICATE OF DESIGN

Design specification certified by N/A (When applicable) P.E. state N/A Reg. no. N/A
 Design report certified by N/A (When applicable) P.E. state N/A Reg. no. N/A

CERTIFICATE OF SHOP INSPECTION

We certify that the statements made in this report are correct and that this (these) CRDM Seal Housing assemblies conform to the rules of construction of the ASME Code, Section III.

NPT Certificate of Authorization no. N2041

Expires February 20, 2002

Date 3/2/01 Name GE Nuclear Power LLC
 (NPT Certificate Holder)

Signed [Signature]
 (Authorized representative)

CERTIFICATE OF SHOP 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 New Hampshire and employed by H. S. B. I. & I. Co. of Hamford CT have inspected these items described in this data report on: CRDM Seal Housing Assemblies and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or components in accordance with the ASME Code, Section III. Each part listed has been authorized for stamping on the data shown above.
 By signing this Certificate, neither the inspector nor the employer makes any warranty, expressed or implied, concerning the equipment described in this data report. Furthermore, neither the inspector nor the employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 3/2/01 Signed [Signature] Commission NH202 No. N/A
 (N.B. endorsement(s) state or prov. and no.)

MATERIAL	TENSILE	NOMINAL THICKNESS (IN)	MIN. DESIGN THICKNESS (IN)	DIA. I.D. (FT & IN)	LENGTH OVERALL (FT & IN)
SB-166 NO6600 Access Tube Flange	80,000	.120"	.115"	1.26"	2"
SB-167 NO6600 Access Tube	80,000	.120"	.108"	1.26"	39.50"
SB-166 NO6600 Seal Housing	80,000	.28	.26	2.06	11.38

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company
Name

Date January 15, 2002

27780 Blue Star Hwy. Covert, MI
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant
Name

Unit 1

27780 Blue Star Hwy. Covert, MI
Address

W.O.# 24114430
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water (SWS)

5. (a) Applicable Construction Code B31.1, 55 Edition, n/a Addenda, n/a Code Case
Year

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89
Year

(c) Applicable Section XI Code Cases None

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
STUD	Nova Mach. Prod.	HE# 67741	N/A	PO# 284505/1	97	Installed	No
NUT	Nova Mach. Prod.	HE# 387035	N/A	PO# 367311/1	01	Installed	No

7. Description of Work Replace studs and nuts on Refrig. Condensing Unit VC-10

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Exempt
Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.



24114430

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

Multiple horizontal lines for additional remarks or data reports.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature], Senior Engineer Date January 28, 2002
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I. have inspected the components described in this Owner's Report during the period 11/20/99 to 01/29/02, 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.

Inspector's Signature [Signature] Commissions MI -762 ABNT
National Board, State, Province, and Endorsements
Date Jan. 29, 2002

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company
Name

Date January 15, 2002

27780 Blue Star Hwy. Covert, MI
Address

Sheet 1 of 1

2. Plant Palisades Nuclear Plant
Name

Unit 1

27780 Blue Star Hwy. Covert, MI
Address

W.O.# 24114431
Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy
Name

Type Code Symbol Stamp N/A

27780 Blue Star Hwy. Covert, MI
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Service Water (SWS)

5. (a) Applicable Construction Code B31.1, 1955 Edition, n/a Addenda, n/a Code Case

(b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 89
Year

(c) Applicable Section XI Code Cases None

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
Stud	Novo Mach. Prod.	HE# 67741	n/a	PO# G0284505/1	97	Installed	No
Nut	Novo Mach. Prod.	HE# B87035	n/a	PO# G0367311/1	01	Installed	No

7. Description of Work Replace studs and nuts on Refrig. Condensing Unit #C-11

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Exempt
Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.



24114431

FORM NIS-2 (Back)

9. Remarks None

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [Signature] Date January 28, 2002
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Michigan and employed by Factory Mutual Insurance Company of Johnston, R. I. have inspected the components described in this Owner's Report during the period 11/20/99 to 01/29/02, 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.

[Signature] Commissions MI -762 ABNI
Inspector's Signature National Board, State, Province, and Endorsements

Date Jan 29, 2002

ENCLOSURE 2

**NUCLEAR MANAGEMENT COMPANY
PALISADES NUCLEAR PLANT
DOCKET 50-255**

March 21, 2002

CONTAINMENT STRUCTURAL INTEGRITY SURVEILLANCE PROGRAM

19 pages follow



NUCLEAR MANAGEMENT COMPANY, LLC

PALISADES NUCLEAR PLANT

CONTAINMENT STRUCTURAL INTEGRITY
SURVEILLANCE PROGRAM

ISI SUMMARY

Interval - 1

Period - 1

PLANT OWNER: Consumers Energy Company

PLANT: Palisades Nuclear Plant

AUTHOR: *George E. Schrader* 13.14.02
 GESchrader, PE, Program Sponsor Date

TECHNICAL REVIEWER *T.H. Newton* 13/14/02
 THNewton, System Engineer Date

MANAGER APPROVAL *Michael Carlson* 1 3/14/02
 M Carlson, Engineering, Programs Date

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2001 CONTAINMENT STRUCTURAL INTEGRITY SURVEILLANCE,
ISI SUMMARY – INTERVAL 1, PERIOD 1

Submitted in accordance with ASME Boiler and Pressure Vessel Code, Section XI,
Article IWA-6000, 1992 Edition, 92 Addenda

1. Date: March through May 2001
2. Plant Owner: Consumers Energy Company
212 West Michigan Avenue
Jackson, Michigan 49201
3. Plant: Palisades Nuclear Plant
27780 Blue Star Memorial Highway
Covert, Michigan 49043
4. Unit No: 1
5. Commercial Service Date: December 31, 1971
6. Major Component Inspected:

<u>Component</u>	<u>Manufacturer</u>	<u>Equipment Number</u>
Liner Plate	Bechtel	N-54B
Reinforced Concrete	Bechtel	N-54A
Escape Airlock	WJWooley, Comp	MZ-50
Personnel Airlock	WJWooley, Comp	MZ-19
Equipment Hatch	WJWooley, Comp	MZ-51

7. Completion Date of Examination: April 30, 2001
8. Code Inspector: Kenneth L. Blake
9. Authorized Inspection Agency: Factory Mutual Insurance Company
Johnston, R.I.
10. Abstract: See attached report

1.0 PURPOSE

In accordance with Code of Federal Regulation 10 CFR 50.55a, Nuclear Management Company, LLC (NMC) is required to implement ASME Section XI, 1992 Edition, 1992 Addenda, Subsection IWE and IWL by September 9, 2001. This requirement is met by implementation of inspection program B as described in IWE-2412 and the inspections required by IWL.

This report provides a summary of examinations, inspections and corrective actions through the 2001 refueling outage for containment liner plate inservice examinations. All current activities are performed in accordance with the rules and requirements specified in ASME Section XI, Subsection IWE and IWL.

In accordance with ASME Section XI, 1992 Edition, IWA-6240(b), "The inservice inspection summary report shall be submitted within 90 calendar days of the completion of each refueling outage." The Responsible Engineer shall complete a Containment Structural Integrity Surveillance Program report. The 2001 refueling outage (end of fuel cycle 15) ended May 10, 2001.

2.0 EXAMINATION AND INSPECTION SCOPE FOR INTERVAL 1, PERIOD 1

The examination and inspection scope for interval 1, period 1, as conducted during the 2001 refueling outage, is summarized in the following table:

Examination Category	Item Number	Reference I.D.	Examination	Disposition
E-A	E1.11	Containment Liner El. 590'- El. 607' N 54 B	General VT	Accepted
E-A	E1.11	Containment Liner El. 607'- El. 625' N 54 B	General VT	Accepted
E-A	E1.11	Containment Liner El. 625'- El. 649' N 54 B	General VT	Accepted
E-A	E1.11	Containment Liner El. 649'- El. 739' N 54 B	General VT	Accepted
E-A	E1.11	Containment Liner El. 739'- El. 779' N 54 B	General VT	Accepted
E-A	E1.11	HGR/EB1-H1	General VT	Accepted
E-A	E1.11	HGR/EB1-206WR-1 (R1.1)	General VT	Accepted
E-A	E1.11	HGR/EB1-206WR-2	General VT	Accepted
E-A	E1.11	HGR/EB1-206WR-3	General VT	Accepted
E-A	E1.11	HGR/EB1-H14	General VT	Accepted
E-A	E1.11	HGR/EB1-206WR-1 (R14.1)	General VT	Accepted
E-A	E1.11	HGR/EB1-206WR-2	General VT	Accepted
E-A	E1.11	HGR/EB1-206WR-3	General VT	Accepted
E-A	E1.11	Polar Crane Support Brackets #1 through 20	General VT	Accepted
E-A	E1.11	Containment Liner Support Truss #1 through 18	General VT	Accepted
E-D	E5.30	Moisture Barrier, Elevation 590, 0 to 120 degrees.	VT-3	Accepted
E-G	E8.10	Escape Airlock	VT-1	Accepted
E-G	E8.10	ILRT Fill Line MZ-27	VT-1	Accepted
L-A	L1.11	Containment Wall 25 deg.-85 deg.	VT-3 C	Accepted
L-A	L1.11	Containment Wall 85 deg.-145 deg.	VT-3 C	Accepted
L-A	L1.11	Containment Wall 145 deg.-205 deg.	VT-3 C	Accepted
L-A	L1.11	Containment Wall 205 deg.-265 deg.	VT-3 C	Accepted
L-A	L1.11	Containment Wall 265 deg.-325 deg.	VT-3 C	Accepted
L-A	L1.11	Containment Wall 325 deg.-25 deg.	VT-3 C	Accepted
L-A	L1.11	Containment Dome 360 deg.	VT-3 C	Accepted
L-A	L1.11	Containment Tendon Access Tunnel	VT-3 C	Accepted

3.0 EXAMINATION AND INSPECTION RESULTS AND CORRECTIVE ACTIONS

3.1 Examination Category E-A, Containment Surfaces

Examination Results:

During refueling outage 15, general visual examination of the containment liner plate discovered miscellaneous structural integrity test (SIT) instrument and wire chase attachments and other minor indications.

Corrective Actions:

Conditions were accepted by examination in accordance with Subsection IWE-3122.1. Palisades condition report CPAL0101101 documents the basis for acceptance. Acceptance is based on the liner plate meeting acceptance criteria for structural integrity and pressure boundary thickness.

3.2 Examination Category E-D, Seals, Gaskets and Moisture Barriers

Examination Results:

During refueling outage 14, visual examination VT-3 of the containment, 590-foot elevation, moisture barrier was performed from the 0 to 120 degree locations. This represents 33% of the entire circumference. This area failed acceptance criteria, and the examination scope was expanded to include 100% of the exam category E-D, item number 5.30, moisture barrier.

During refueling outage 15, visual examination VT-3 of the containment, 590-foot elevation, moisture barrier indicated four areas that should be removed and replaced. Total length of barrier affected was approximately ten feet.

Corrective Actions:

During refueling outage 14 and due to failure to meet acceptance criteria in the 0 to 120 degree area, condition report CPAL9902035 was initiated and the entire circumference at the 590-foot elevation of containment was inspected.

Work order 24903053 was written to control assessment activities for the liner plate at the 590-foot elevation of containment. Assessment results indicate all areas meet the nominal 0.250-inch plate thickness described in the Palisades Final Safety Analysis Report (FSAR), Section 5.8. Minimum thicknesses were nominally 0.280 inches. Based on these results, the liner plate was accepted by examination as allowed by IWE-3122.1. The moisture barrier was accepted by replacement as allowed by IWE-3122.3.

During refueling outage 15, areas of the moisture barrier not meeting the requirements of IWE-3513 were accepted by repair in accordance with IWE-3122.2. Portions of loose moisture barrier were repaired under work order 24010051. This was considered a normal maintenance activity.

3.3 Examination Category E-G, Pressure Retaining Bolting

Examination Results:

During refueling outage 15, visual examination VT-1, as required by item E8.10, was performed on the integrated leak rate test (ILRT) fill line MZ-27. Results are documented in work order 24411366 and components meet acceptance criteria.

During refueling outage 14, visual examination VT-1, as required by item E8.10, was performed on the escape airlock MZ-50. All components meet acceptance criteria.

3.4 Examination Category E-P, All Pressure Retaining Components

Examination Results:

During the 2001 refueling outage, NMC fulfilled examination category E-P requirements for item numbers E9.10, E9.30 and E9.40. Palisades does not have any components within the scope of item number E9.20. Results for the ILRT are contained in a report entitled "Palisades Plant, Integrated Leak Rate Test Report." Results for airlocks and seals and gaskets are contained in completed Local Leak Rate Test (LLRT) Program surveillance procedures.

3.5 Examination Category L-A, Concrete Surfaces

Examination Results:

An ISI summary report entitled "Containment Inservice Inspection, Testing and Aging Management, ISI Summary – Refout 15" was submitted to the Nuclear Regulatory Commission (NRC) on August 10, 2000. This report documents the results for the initial visual examination of containment concrete surfaces in accordance with ASME Subsection IWL.

4.0 HISTORICAL EXAMINATION AND INSPECTION SUMMARIES

4.1 Containment Liner Examinations, Preservice to 2001 Refueling Outage

4.1.1 Preservice examinations for containment are documented in Palisades FSAR, Section 5.8.8, "Containment Structure Testing" and Section 5.8.8.4, "Structural Integrity Test."

4.1.2 An initial Containment Liner Plate and Penetration Surveillance Program is documented in Palisades FSAR, Section 5.8.8.5. The liner plate and penetration surveillance program was established to satisfy the requirements of the original Palisades Technical Specifications. Surveillances were conducted in 1) a preservice condition before the pressurization phase of the structural integrity test (PPSIT) in March of 1970; 2) after the PPSIT (one year after initial start-up) and; 3) one-and-one-half years after initial start-up. It was concluded that the

liner plate system and penetration assemblies were performing as predicted. Therefore, the surveillance program was terminated.

4.2 Containment Reinforcing Concrete Examinations, Preservice to Present

4.2.1 Preservice examinations for containment are documented in Palisades FSAR, Section 5.8.8, "Containment Structure Testing."

4.2.2 The End Anchorage Concrete Surveillance Program, documented in Palisades FSAR, Section 5.8.8.6, was established to satisfy the requirements of the original Palisades Technical Specifications. Observations were made before, during and after the PPSIT. Subsequent observations were made February 12, 1971 and June 7, 1971. It was concluded that the end anchorage concrete was sound and free of significant cracking. Therefore, the surveillance program was terminated.

4.3 Containment Post Tensioning System, Preservice to 25-Year Surveillance

4.3.1 Preservice examination for containment post tensioning system is documented in Palisades FSAR, Section 5.8.8.3, "Prestressing System Surveillance."

4.3.2 A historical summary for containment post tensioning system surveillances (years 1, 3, 5, and 10-20) are documented in Palisades FSAR, Section 5.8.8.3.5, "Historical Summary."

4.3.3 Consumers Energy Company submitted the Palisades 25-Year tendon surveillance report on December 18, 1997, with a supplemental submittal on February 23, 1998. A response was also provided to the NRC Staff's July 27, 1998, request for additional information on September 25, 1998.

5.0 ASSESSMENT OF POTENTIAL DEGRADATION MECHANISMS

5.1 Containment Metal Liner

5.1.1 Pitting Thinning

This degradation has not been found at Palisades to date.

5.1.2 Corrosion Thinning (atmospheric, embedment, crevice, differential aeration, galvanic, microbiologically induced, chemical)

Atmospheric corrosion was discovered during the 1999 refueling outage. Minor corrosion was noted at the 590-foot elevation moisture barrier and at various locations where SIT strain gauges remained attached to the liner plate.

Corrosion occurred at unprotected carbon steel surfaces. Areas of occurrence were characterized by visual evidence of reddish brown discoloration. Corrosion was minor and liner plate nominal wall thickness was not significantly affected.

5.1.3 Mechanical Damage, Wear Erosion or Abrasion

This degradation has not been found at Palisades to date.

5.1.4 Galvanic Corrosion Thinning

This degradation has not been found at Palisades to date.

5.1.5 Cracking (Stress Corrosion, Cyclic Fatigue)

This degradation has not been found at Palisades to date.

5.2 Containment Reinforcing Concrete

5.2.1 Chemical Attack of Concrete

This degradation has not been found at Palisades to date.

5.2.2 Freeze-Thaw

This degradation has not been found at Palisades to date.

5.2.3 Differential Settlement

This degradation has not been found at Palisades to date.

5.2.4 Aggregate Reactions

This degradation has not been found at Palisades to date.

5.2.5 Leaching of Calcium Hydroxide

This degradation has not been found at Palisades to date.

5.2.6 Mechanical Damage, Wear Erosion or Abrasion

This degradation has not been found at Palisades to date.

5.3 Containment Post Tensioning System

5.3.1 Tendon Wire Corrosion

This degradation has not been found at Palisades to date.

5.3.2 Tendon Relaxation

The lift-off forces for tested tendons are reviewed at each surveillance. With some exceptions, lift-off forces are above the lower bound values (i.e., the prescribed lower limits) established for each group. Some tendons have tested below their respective prescribed lower limit, but above 95% of this limit. The force and elongation for each affected tendon was analyzed. The analysis indicates that there is some non-linearity in the force/elongation relation. This is caused by a binding of the tendon and would not have any effect on the performance of the tendon.

5.3.3 Tendon Grease Loss

From the data on grease removed and grease replaced there appeared to be some voids in the grease. Most of the grease voids are less than 5%. Large voids in sheathing may indicate that the tendon wires are not fully protected against corrosion. Large voids may also indicate that there may be leakage of grease into concrete, thus potentially reducing concrete strength. From the sheathing filler streaks that exist on the outside of the containment wall at various locations, it appears that there has been some leakage from the sheathing. Replacements have been performed on a number of grease can gaskets. Leakage appears to have resulted from an ambient temperature change after greasing operations. Grease leakage was also found scattered along construction joints. This situation is not unique to Palisades. Grease voids have not had any impact on the integrity of the tendon and concrete as evidenced by visual examination of the concrete and the lift-off readings of the tendons. During the steam generator replacement in 1990 and 1991, 52 tendons were removed from the containment opening, were examined and found to have adequate grease coverage with no evidence of corrosion. The effects of grease voids on the containment integrity appear to be insignificant.

5.3.4 Strain Aging

This degradation has not been found at Palisades to date.

5.3.5 Water Infiltration

As documented in a Consumers Power Company submittal to the NRC dated June 16, 1992, entitled "20 Year Containment Tendon Surveillance Report," water infiltration has been documented at Palisades. The grease in tendons D2-23 and V-20 had an absorbed water content of 15.5% and 10.2%, respectively. In addition, small quantities of free water were found in three additional grease cans. The concern is that water in contact with the anchorage may cause stress corrosion of the anchor head or tendon wire, or hydrogen embrittlement of the anchorage. However, examinations of the anchorages in the surveillance scope did not show any visible corrosion or cracking of any of the anchorage components. On the basis of this information, it is concluded that the presence of water in the grease is limited to a few tendons, and its effect appears to be insignificant to cause corrosion or cracking of the anchorage components.

6.0 SUMMARY

The Containment Inservice Inspection, Testing and Aging Management Program demonstrates that the Palisades containment continues to be operable and capable of fulfilling all designed operating and accident functions.

7.0 APPENDIX

7.1 Definitions and Acronyms

Condition Report (CR) - Condition Reports (CRs) identify undesirable conditions or conditions adverse to quality at Palisades.

Inspection - As used in this report, an inspection is an observation, other than Code examinations, performed by engineers, operators or maintenance persons.

Operating Experience (OE) - Operating experience is industry information received from the Institute of Nuclear Power Operators (INPO), the NRC, utilities, NSSS suppliers, and international participants in the form of various reports that are disseminated to nuclear power plants via the Nuclear Network system.

Pressurization Phase of the Structural Integrity Test (PPSIT) - The pressurization phase of the structural integrity test (PPSIT) was conducted between March 23 and March 31, 1970.

Ultrasonic Test (UT) - In accordance with ASME Section XI, 1992 Edition, IWA-2230, UT examinations are conducted to detect the presence of discontinuities throughout the volume of material and may be conducted from either the inside or outside surface of a component.

General Visual Examination - In accordance with ASME Section XI, 1992 Edition, IWE-3510.1, General Visual examinations are conducted to detect

evidence of degradation that may affect either the containment structural integrity or leak tightness.

Visual Examination VT-1 - In accordance with ASME Section XI, 1992 Edition, IWA-2211, VT-1 examinations are conducted to detect discontinuities and imperfections on the surfaces of components, including such conditions as cracks, wear, corrosion or erosion.

Visual Examination VT-2 - In accordance with ASME Section XI, 1992 Edition, IWA-2212, VT-2 examinations are conducted to detect evidence of leakage from pressure retaining components, with or without leakage collection systems, as required during the conduct of system pressure test. VT-2 examinations are conducted in accordance with IWA-5000. For direct examination, the Table IWA-2210-1 maximum examination distance shall apply to the distance from the eye to the surfaces being examined.

Visual Examination VT-3 - In accordance with ASME Section XI, 1992 Edition, IWA-2213, VT-3 examinations are conducted to determine the general mechanical and structural condition of components and their supports by verifying parameters such as clearances, settings, and physical displacements; such as loss of integrity at bolted or welded connections, loose or missing parts, debris, corrosion, wear, or erosion. VT-3 includes examination for conditions that could affect operability or functional adequacy of snubbers and constant load and spring type supports.

8.0 ATTACHMENTS

Attachment 1 , NIS-1 Form, "Owner's Report for Inservice Inspections"

Attachment 2 , NIS-2 Form, "Owner's Report for Repair/Replacement Activity"

Attachment 1, Form NIS-1, "Owner's Report for Inservice Inspections"

Attachment 2, Form NIS-2, "Owner's Report for Repair/Replacement Activity"

FORM NIS-2 OWNER'S REPORT FOR REPAIR/REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code, Section XI

1. Owner Consumers Energy Company Date APRIL 2, 2001
Name
27780 Blue Star Hwy Covert, MI Sheet 1 of 1
Address

2. Plant Palisades Nuclear Plant Unit 1
Name
27780 Blue Star Hwy Covert, MI W.O.# 24911837
Address Repair/Replacement Organization P.O. No., Job No., etc.

3. Work Performed by Consumers Energy Type Code Symbol Stamp N/A
Name Authorization No. N/A
27780 Blue Star Hwy Covert, MI Expiration Date N/A
Address

4. Identification of System CONTAINMENT ISOLATION (CIS)

5. (a) Applicable Construction Code ASME III, 1965 Edition, n/a Addenda, n/a Code Case
Year
 (b) Applicable Edition of Section XI Utilized for Repair/Replacement Activity 92
Year
 (c) Applicable Section XI Code Cases n/a

6. Identification of Components:

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Corrected, Removed, or Installed	ASME Code Stamped (Yes or No)
BOLT	TRENTAC	HT# 69731 / 83916	n/a	PO# GØ 286382/3	99	INSTALLED	NO
NUT	TRENTAC	HT# 68395	n/a	PO# GØ 286382/1	99	INSTALLED	NO
WASHER	TRENTAC	HT# 68395	n/a	PO# GØ 287455/1	99	INSTALLED	NO

7. Description of Work REPLACE SWING BOLT ON EQUIPMENT HATCH MZ-51.

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Exempt 4.2.01
 Other Pressure 55 psi Test Temp. Amb °F 20.32.51

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ 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 number of sheets is recorded at the top of this form.



Additional References

-Palisades Condition Report, CPAL9801018, "Containment Liner Plate Corrosion Observed During Containment Coatings Walkdown"

-Palisades Condition Report, CPAL9902035, "Containment Liner Plate to Floor Caulked Joint Missing or Degraded (N-54B)"

-Palisades Technical Specification Surveillance Procedure RT-131, "Containment Inservice Inspection - Metal Liner,"

-ASME Section XI, 1992 Edition, Subsection IWE, "Requirements for Class MC and Metallic Liners of Class CC Components of Light-Water Cooled Plants"

-Palisades Engineering Manual Procedure EM-09-12, "Containment Structural Integrity Surveillance Program"

-Palisades Engineering Analysis EA-EAR-98-0443, "Basis for ISI Acceptance Criteria for Containment Liner Plate Reduced Thickness"