Date: 04/27/01

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Notes

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A9618	N/A	N/A	1994		Yes, Code Class 1
CT&F	General Electric	A9618	N/A	N/A	1994	Replacement	Yes, Code Class 1
Piston Tube	General Electric	3254	N/A	N/A	1985	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed: Assembled Control Rod Drive (CRD) assembly Serial No A9618. The Control Rod Drive (CRD) assembly Serial No A9618 was assembled from all new parts in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9618.
 - 2) Installed new Piston Tube assembly Serial No 3254.
 - 3) Installed new Ring Flange Serial No A5547.
 - 4) Performed VT-1 visual examination on six (6) new Ring Flange Cap Screws Heat Code No AT, Heat No 531057. VT-1 visual examination results acceptable. VT-1 visual examination Report No 4-01-2-1.
 - 5) Installed six (6) new VT-1 visually examined Ring Flange Cap Screws Heat Code No AT, Heat No 531057.
 - 6) Performed VT-1 visual examination on new Piston Tube Nut Serial No 6441. VT-1 visual examination results acceptable. VT-1 visual examination Report No 4-01-2-2.
 - 7) Installed new VT-1 visually examined Piston Tube Nut Serial No 6441.
 - 8) Assembled parts and materials for Control Rod Drive (CRD) assembly Serial No A9618.

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9618 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9618.
- 2) Piston Tube assembly Serial No 3254 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 3254
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9618.

WOT No 01025424 07

EMERGYNORTHWEST

Tests Conducted	I: Hydrostatic Pneumatic Nominal Operating Pressure Other No. Test Pressure: Psig Test Temperature: ° F Component Design Pressure: Psig Temperature: ° F
. Remarks: See atta	ached N-2 Code Data Reports for the following:
Cylinder Tube And Fid Piston Tube assembly	ange (CT&F) assembly Serial No A9618. y Serial No 3254.
	CERTIFICATE OF COMPLIANCE
to the rules of to Type Code Sym Certificate Of A Expiration Date	the statements made in this Owner's Report are correct and this replacement conforms the ASME Code, Section XI. Inbol Stamp: Not Applicable uthorization No.: Not Applicable Not Applicable Signed By Kuldip Singh - Program Lead Engineer (PLE) Holding Singh - Program Lead Engineer (PLE) Date Date
	CERTIFICATE OF INSERVICE INSPECTION
Johnston, Rhode period	ed, holding a valid commission issued by the National Board of Boiler and Pressure ars and the State of Washington and employed by Factory Mutual Insurance Company of Island have inspected the components described in this Owner's Report during the and state to the best of my knowledge and belief, the formed examinations and taken corrective measures described in this Owner's Report with the requirements of the ASME Code, Section XI. Certificate neither the Inspector nor his employer makes any warranty, expressed or noing the examinations and corrective measures described in this Owner's Report. Either the Inspector nor his employer shall be liable in any manner for any personal ty damage or a loss of any kind arising from or connected with this inspection.
11 5 Insp	Commissions 7486, 1176, 1175 ector's Signature National Board, State, and Endorsements

WET NO. 01 025424 07

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APP As required by the Provision of the ASME Code Rules, Section III	PURTENANCES*
	4/27/01

	grades such
1.	421(0) Manufactured & Certified by: <u>General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)</u>
)	2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Bolder)
	(b) Manufactured for : WNP 2 Richland, Washington 99352
	(Name and Address of N Certificate Holder for completed nuclear component)
2.	Identification - Certificate Holder's S/N of Part : <u>A9618</u> Nat'l Bd. No. <u>N/A</u>
	(a) Constructed According to Drawing No: <u>919D258G003 Rev 18</u> Dwg. Prepared by <u>D. L. Peterson</u>
	(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
	(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
3.	REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
	Sheet 1 of 2
ļ	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Date: 03/15/94 Signed GE-NEBG-NF&CM-QA (NPT Certificate Holder) Signed GE-NEBG-NF&CM-QA (NPT Certificate Holder) Signed NPT Certificate Holder)
	Certification of Design for Appurtenance
	Design information on file at GE Company , San Jose , California
	Stress analysis report on file at <u>GE Company, San Jose, California</u>
	DC22A6253 Rev. 1 Design specification certified by <u>Biorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
	Certification of Shop Inspection
	Certification of snop inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 1994. and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied. concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

3/15 . 1994 Jesone P Evers
Dare Inspector's Signature NC 1231, Ohio, WC 3686 PA National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

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		Girth		1				No. of Course	es
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J .	Location		Crown	Knuck le	Elliptical	Concial		Flat Side	to Press.
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7.		losure:	•		•				
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16.	Nozz les:	Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Туре	Materia	J Thickness	Reinforcement Material	How Attached
17.	Inspect Openings		No No		Size Size		Location Location Location		
18.	Supports		Lugs	(Number)	Legs	(Number)	Other (Describe)	Attached _	(Where & How)

^{1 -} If Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

4)21)01

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)

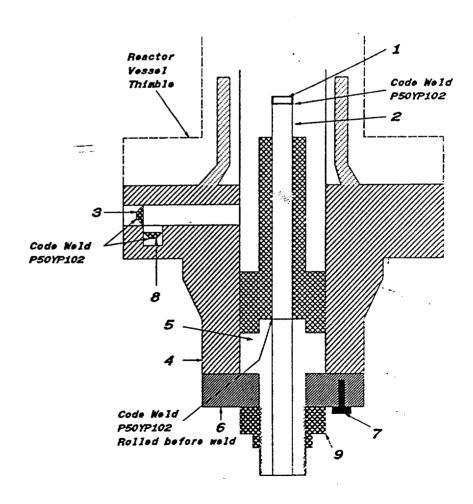
(b)	Manufactured for :	WNP 2	Richland,	Washincton 99352		
•		(Name and A	ddress of N	Certificate Holder for	completed nuclear	component)

- 2. Identification Certificate Holder's S/N of Part : A9618 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
 - (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W75, Case No. 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

 (Brief description of service for which component was designed)

Sheet 2 of 2

- 1. Cap 166B9274P001 SA182 - TP316 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4' sch 40 - seamless pipe 0.113' wall thickness 1.065' max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37* thick x 9 5/8* OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES. As required by the Provision of the ASME Code Rules, Section III, Div. I

WOT NO.01025424
L. (a) Massefactured by General Electric Co., Castle Hayne Rd., Wilmington, N.C.
(b) Manufactured for STOCK WNP-2 (Name and address of NPT Certificate Helder)
(Name and address of M Company)
2. Identification-Certificate Holder's Serial No. of Part 3254 Nar'l Bd. No. N/A
(a) Constructed According to Drawing No. 798D228G010 Drawing Prepared by D. L. Peterson
(b) Description of Part Inspected Piston Tube Assembly
(c) Applicable ASME Code: Section III, Edition 1971, Addenda date 5'73, Case NoClass 1
3. Remerker standard part for use with reactor.
(Brief description of service for which component was designed) Bydrostatically tested at 1825 psi.
* Number of Sheets - 2
We certify that the statements made in this report are correct and this vessel part or appurenance as defined in the Code of the rules of construction of the ASME Code Section III. (The applicable Design Specification and Stress Report are not the responsibility of the NFT Certificate Holder for parts. An NFT Control of the NFT Certificate Holder for parts. An NFT Control of the NFT Certificate Holder for parts. An NFT Control of the NFT Certificate Holder for parts. An NFT Control of the NFT Certificate Holder for parts. An NFT Control of the NFT Certificate Holder for parts. An NFT Control of the NFT Certificate Holder for parts. An NFT Control of the NFT Certificate Holder for parts. An NFT Control of the NFT Certificate Holder for parts. An NFT Control of the NFT Certificate Holder for parts. An NFT Certifica
altimate of Audiorization Empire. June 16, 1987
CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)
Design information on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.
Stress enalysis report on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.
Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Res. No. 14488
Stress analysis report certified by Vermon W. Pence Prof. Eng. State Calif. Res. No. 14488
CERTIFICATE OF SHOP INSPECTION
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Province of North Carolina and employed by Department of Labor
have incorporate the new of a second
and belief, the NPT Certificate Melden have a series of the last of the best of the last o
By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data Report. Furthermore, neither the inspector nor his employer with this inspector.
Date
N.C. 723,PA.WC1766, OHIO
Inspector's Signature Commissions Notional Board, State, Province and No.

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13. 13.	Sheil: M. Seame: 1 Hends (s L (a) Top, (b) Chans If renova Design po as below to Safety Va Nozzles: Purpose (Outlot, D	irth i) Material bottom, encuel ble, bolts ressure o be compl	Thickness de eted (a) eted for all v s: Number	H.T.1 Crown Redice (b)	minal ichness period) T.S Kauckle Radius pai at applicable Size	Corre	Conical Apex Angle	Efficient No. of C al Homisp Rad Other faste	horient ins ning (De Drop Weig Charpy Is at temp. (T.S Flat Diameter escribe or a ght npact of	Side te (Coav. a
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13. 14. Item 15. 16.	Sheil: M. Seeme: 1 Heads (a) L (a) Top, (b) Chans If remova Design po as below to Nozzles: Purpose (Outlet, D	perential perential perential postton botton, end sel ble, bolts ressure o be compl alve Outlet (inlot, voin)	Thickness de used (a) eted for all v s: Number	H.T. L. Crown Redices Crown Redices Clark Control Redices Con	T.S. Kauchie Radius psi al	Corre	(b) Materi Conical Apox Angle	Effection No. of C al Homispi Rad Other faste	bourses	T.SFlat Diameter pacribe or e ght mpact reement real	Side to (Coav. a
13. 14. Item 15. 16.	Sheil: M. Seeme: 1 Heads (a) L (a) Top, (b) Chans If remova Design po as below to Nozzles: Purpose (Outlet, D	pressure 2	Thickness de used (a) eted for all v st Number	H.T.1 Crown Redice (b)	T.S. Kauchie Radius size Typ	Corre	(b) Materi Conical Apox Angle	Efficient No. of C al Homispi Rad Other faste	ning (Do Drop Vei) Charpy Is at temp.	T.S Flat Diameter seribe or e ght mpact print recensed recensed	Side to (Coav. a
13. 14. Item 15. 16.	Sheil: M. Seeme: 1 Heads (a) L (a) Top, (b) Chans If remova Design po as below to Nozzles: Purpose (Outlet, D	pirch	Thickness de used (a) eted for all v s: Number	H.T. L. Crown Redice Crown Redice Size Size Size	T.S. Kauckie Radius psi al	Corre	(b) Materi Conical Apox Angle	No. of Cal Homispi Rad	ning (De Drop Wei Charpy Is at temp.	T.S Flat Diameter serribe or e ght mpact of	Side to (Coav. o

List other internal or external pressure with coincident temperature when applicable,

WOT NO. 01025424 07 POR N-2 MPT CERTIFICATE HOLDERS! DATA REPORT FOR CEAR PART AND APPLICABLE OF As required by the Provision of the ASE Coo Rules, Section III, Div. I.

1. Manufactured & Cartified by: GE Company, 2117 Castle Hayne Rd., Wilmington, M.C. 2840141 (Name and Address of NPT Cartificate Holder)

(b) Manufactured for: NEE-2. RICHLAND, M. 99352

(Name and Address of N Cartificate Holder for completed nuclear component)

2. Identification-Cartificate Holders's S/N of Parts_ 3254 __ Nat'l Bd. H. N/A

(a) Constructed According to Drawing No: 798D228G010 Dwg. Prepared by D. L. Peterson

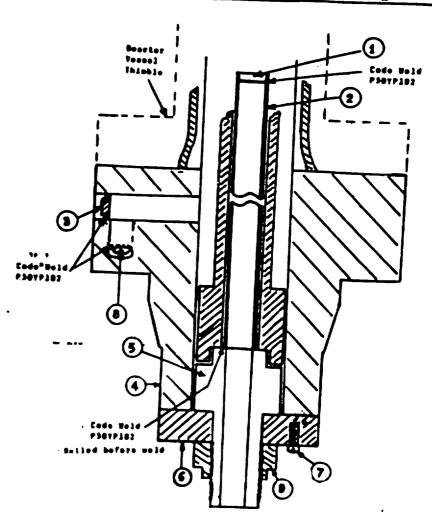
(b) Description of Part Inspected: Piston Tube Assembly

(C) Applicable ASME Code: Section III, Edition 1971, Addenda Date 8'73, Case No. _____Class__

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)

Sheet 2 of 2

- Cap 167A2343P1 SA182-P304 3/8 thick x 1 1/16 00
- Indicator Tube 104B1336P3 SA312-TP316 3/4 sch 40-seemless pipe 0.113 wall thickness 1.065 max. dia.
- 3. Plug 159A1176P1 SA182-P304 1/4 thick x 0.812 00
- Flange 919D610P1 (719E474) SA182-F304 3.37 thick x'9 5/8 00
- 5. Head 129B3539P3,P5 SA182-F304 7/8 thick x 2.875 Dia.
- 6. Ring Flange 114B5122P2 SA182-F304 1" thick x 5.0 00 x 1.75 ID
- 7. Cap Screw 117C4516P2 SA193-B6 6 ea. 1/2 dia. on 4 1/8 bolt circle
- 8. Plug 175A7961P1 SA182-F304 0.38 thick x 1.307 dia.



Date: 04/27/01

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Notes

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A9535	N/A	N/A	1994		Yes, Code Class 1
CT&F	General Electric	A9535	N/A	N/A	1994	Replacement	Yes, Code Class 1
Piston Tube	General Electric	B0772	N/A	N/A	1992	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed: Assembled Control Rod Drive (CRD) assembly Serial No A9535. The Control Rod Drive (CRD) assembly Serial No A9535 was assembled from all new parts in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9535.
 - 2) Installed new Piston Tube assembly Serial No B0772.
 - 3) Installed new Ring Flange Serial No A5553.
 - 4) Performed VT-1 visual examination on six (6) new Ring Flange Cap Screws Heat Code No AT, Heat No 531057. VT-1 visual examination results acceptable. VT-1 visual examination Report No 4-01-2-1.
 - 5) Installed six (6) new VT-1 visually examined Ring Flange Cap Screws Heat Code No AT, Heat No 531057.
 - 6) Performed VT-1 visual examination on new Piston Tube Nut Serial No 6428. VT-1 visual examination results acceptable. VT-1 visual examination Report No 4-01-2-2.
 - 7) Installed new VT-1 visually examined Piston Tube Nut Serial No 6428.
 - 8) Assembled parts and materials for Control Rod Drive (CRD) assembly Serial No A9535.

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9535 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9535.
- 2) Piston Tube assembly Serial No B0772 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No B0772.
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9535.

WOT No 01025424 08

EMERGYNORTHWEST

Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other X None Test Pressure: Psig Test Temperature: ° F Component Design Pressure: Psig Temperature: ° F
. Remarks: See attached N-2 Code Data Reports for the following:
Cylinder Tube And Flange (CT&F) assembly Serial No A9535. Piston Tube assembly Serial No B0772.
CERTIFICATE OF COMPLIANCE
We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI. Type Code Symbol Stamp: Not Applicable Certificate Of Authorization No.: Not Applicable Expiration Date: Not Applicable Prepared By Signed By Kuldip Singh - Program Lead Engineer (PLE) Date Date 42701 Date 42701
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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period of the following the period of the following the period of the following the fo
Inspector's Signature Date 4455 5/8/07 Commissions 7/186/12/7486 NJIJ

WOT NO. 0102 5484 00 FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

	Vuldip Singly
1.	4) 0; Manufactured & Certified by: <u>General Electric Company Nuclear Fuel & Components Manufacturing</u> (GE NF & CM)
	2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)
	Dichland Washington 00252
	(b) Manufactured for : WNP 2 Richland, Washington 99352 (Name and Address of N Certificate Holder for completed nuclear component)
2.	. Identification - Certificate Holder's S/N of Part : <u>A9535</u> Nat'l Bd. No. <u>N/A</u>
	(a) Constructed According to Drawing No: <u>919D258G003 Rev 18</u> Dwg. Prepared by <u>D. L. Peterson</u>
	- (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
	(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 . Case No. 1361-2 Class 1
3.	REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
	(Brief description of service for which component was designed)
	Sheet 1 of 2
•	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Date: 03/15/94 Signed GE-NEBG-NF&CM-QA By SC QA Representive) Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: NPTN-1151
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Date: 03/15/94 Signed GE-NEBG-NF&CM-QA (NPT Certificate Holder) By OA Representive)
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Date: 03/15/94 Signed GE-NEBG-NF & CM-QA By SC QA Representive) Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: NPTN-1151
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Date: 03/15/94 Signed GE-NEBG-NF&CM-QA By SC QA Representive) Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: NPTN-1151 Certification of Design for Appurtenance

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 1977. inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

3/15, 1994 Juom Cover (Inspector's Signature NC 1231, Ohio, WC 3686 PA National Board, State, Province And No.

Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

Design specification certified by

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

4.	Shell: M	laterial _ (Kind	T. & Spec. No.)	S. (Min. of Rang	Nominal _ Thickness ge Specified)	in. A	orrosion llowance <u></u>	in. Dia	ft in.	Length ft.	
5.	Seams: L	ong			H.T		R.T.		Effic	iency	,
					•					f Courses	
6.										T.S	
	Location			Crown							-
(a) (b)	Bottom, E	nds) T	hickness	Radius	Radius	Elliptical Ratio	Apex Angle	Radius		(conv. or con	c.)
	If removal	ble, bolt	s used				Other faste	ning	Describe or attack		
7.	Jacket Clo	osure:			I, Spec. No., T.S.					h skelch)	
		2		(De	scribe as ogee an	d weld, bar, etc. If	ber give dimensions,	D	orsketch) rop Weight harpy Impact		t - 1b
³. ——	Design pre	essure _		1250	psi	at	575	F a	t temp of	° F	:
lte	ms 9 and 10	to be c	ompleted 1	for tube	sections		······································		- 111		
			g.	10101101			1	inickno	ess In. A	Attachment (Welder	
										(Str.	or U
									of heat exchang		
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	Shell: Ma Seams: Lo Gi	terial (Kind & ng rth	T.S	Min. of Range	Nominal Thickness Specified) 1 H.T.	Co in. Al	rrosion lowance i R.T	in. Dia	ft in. Effici No. of	Length ft ency Courses	;
	Shell: Ma Seams: Lo Gi Heads: (a Location Top.bottom	terial (Kind & ng rth) Materia	T.S	Min. of Range	Nominal Thickness Specified) H.T. H.T. Knuckle	Co in. Al	rrosion i i i i i i i i i	n. Dia terial	ft in Effici No. of T	Length ft ency Courses	^x
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em	Shell: Ma Seams: Lo Gi Heads: (a Location Top.bottom Channel If removab Design pres s below to Safety Valv Nozzles: Pu	terial	T.S Spec. No.) (I	Crown Radius	Nominal Thickness Specified) H.T. Knuckle Radius (b) ps	I.S. Elliptical Ratio (c) i at plicable.	R.T (b) Ma ———————————————————————————————————	terial	ftinEfficiNo. ofT cal Flat Diameter op Weight arpy Impacttemp of cation	Length ft ency CoursesS Side to Press. (conv. or conc be or attach sketch) ft F	
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a) b)	Shell: Ma Seams: Lo Gi Heads: (a Location Top.bottom Channel If removab Design pres s below to Safety Valv Nozzles: Pu	terial	ickness used (a)	Crown Radius	Nominal Thickness Specified) H.T. Knuckle Radius (b) ps els where ap	I.S	rrosion lowance i R.T R.T R.T (b) Ma Concial Apex Angle Other	terial Hemispheri Radius fastening Fat Loc Thickness	ftinEfficiNo. ofT cal Flat Diameter op Weight arpy Impacttemp of cation Reinforcer Material	Length ft ency CoursesS Side to Press. (conv. or conc be or attach sketch) ft F	x
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^{1 -} If Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div J

4[2] 0

1. Hanufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401

(Name and Address of NPT Certificate Holder)

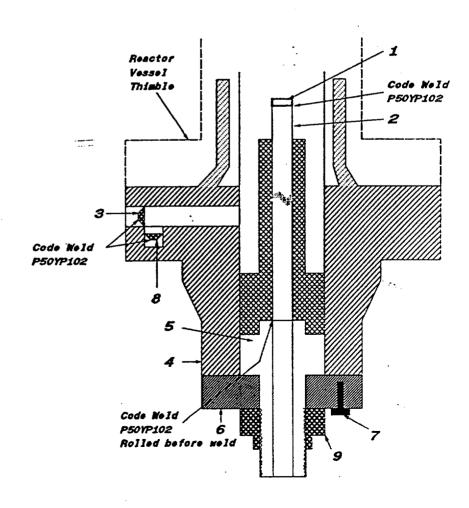
(b)	Manufactured for	:	WNP 2	Richland, Washington 99352	_
			(Name a	and Address of N Certificate Holder for completed nuclear component)	

- 2. Identification Certificate Holder's S/N of Part : A9535 Natl Bd. No. N/A
 - (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
 - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. mln.

 (Brief description of service for which component was designed)

Sheet 2 of 2

- Cap 166B9274P001 SA182 - TP316 3/8° thick x 1 1/16° OD
- Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37* thick x 9 5/8* OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38* thick x 1.307* dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Dix. I

	As required by the Provision of the ASME Code Rules, Section III, Dig. I
1.	Manufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
e.	2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Bolder)
	(b) Manufactured for : WNP 2 Richland, Washington 99352
	(Name and Address of N Certificate Holder for completed nuclear component)
2.	Identification - Certificate Holder's S/N of Part : <u>B0772</u> Nat'l Bd. No. <u>N/A</u>
	(a) Constructed According to Drawing No: <u>798D228G012 Rev 36</u> Dwg. Prepared by <u>D. L. Peterson</u>
	(b) Description of Part Inspected: <u>Piston Tube Assembly</u>
	(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
3.	REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
	Sheet 1 of 2
,	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Date: 12/22/92 Signed GE-NEBG-NF & CM-QA By (NPT Certificate Bolder) Certificate of Authorization Expires: 6/16/93 Certification of Authorization No.: NPT N-1151
	Certification of Design for Appurtenance
	Design information on file at <u>GE Company</u> , San Jose, California
	Stress analysis report on file at <u>GE Company, San Jose, California</u>
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
	Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 12/16.1992, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

Date Inspector's Signature NC 1231, Ohio, WC 3686 PA

National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (_back)

4.	Chair			Nomina 1	Co	rrosion			
	Shell: Mat	erial(Kind & Spec.	T.S. . No.) (Min. of Rang	_ Thickness	in. Al	lowance	in. Dia ft	in. Length	1 ft
		•	, ,	•					
•								Efficiency _	
								No. of Cours	
•	Heads: (a)	Material			T.S	(b) Ma	aterial	T.S	
a) b)		s) Thickn	Crown less Radius	Radius		Apex Angle	Radius	Flat Side Diameter (co	onv. or conc.
-,	If removable	e, bolts use	d			Other faster			
	Jacket Close	ure:	(Material	, Spec. No., T.S.	Size Number)		(0	escribe or attach sketch)	···
			(Dec	scribe as ogee ar	d weld, bar, etc. If t	sar give dimensions, l	f boits, describe or sketch)	"
		_					Drop We Charpy	eight Impact	ft-1
	Design press	sure	1250	psi	at	575		of	
			ted for tube						
					n:-		Th: -!	in. Attachm	
		Flank:		(Kind & Spe	ic. No.)	(Subject to pressur	inickness	in. Attachm in. Attachm	ent (Welded, E
	!	r loating.	Material	<u>-</u>	Dia.	•	Thickness	in. Attachm	ent
•	Tubes: Mate	erial		0.D	in. Thick	kness	Inches or gage. Nu	mber	Type
						 	r channels of he		(Str. or
	Seams: Long		No.) (Min. of Range	н.т		R.T	•	_ Efficiency _	
	6irt	h		1				No. of Course	
					те	f: 1 v	torial	7.0	
•	Heads: (a)	Material			1.3	(D) Ma	rei ia i	1.3	
a)	Location Top,bottom,e	Thickne	Crown	Knuck le	Fllintical	Concial	Homienhorical	Flat Side Diameter (con	.
a) b)	Location	Thickne	Crown ess Radius	Knuckle Radius	Fllintical	Concial Apex Angle	Homienhorical	Elat cida	.
a) b)	Location Top,bottom,e Channel	Thickne	Crown ess Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius fastening	Flat Side Diameter (con	to Press.
a) b)	Location Top,bottom,e Channel	Thickne	Crown ess Radius	Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius fastening Drop We	Flat Side Diameter (con	to Press. IV. or conc. Ich sketch)
a) b)	Location Top,bottom,e Channel	Thicknends, bolts used	Crown ess Radius	Knuckle Radius ———— (b)	Elliptical Ratio	Concial Apex Angle Other	Hemispherical Radius fastening Drop We	Flat Side Diameter (cor (Describe or attail ight Impact	to Press. IV. or conc. Sch sketch)
a) b)	Location Top,bottom,e Channel If removable Design press	Thicknends, bolts used	Crown ess Radius	Knuckle Radius (b)P	Elliptical Ratio (c)	Concial Apex Angle Other	Hemispherical Radius fastening Drop We Charpy	Flat Side Diameter (cor (Describe or attail ight Impact	to Press. IV. or conc. Inch sketch) The sketch of the s
a) b)	Location Top,bottom,e Channel If removable Design press s below to b	Thickneends , bolts used ure completed	Crown ess Radius i(a)	Knuckle Radius (b) p	Elliptical Ratio (c) si at pplicable.	Concial Apex Angle Other	Hemispherical Radius fastening Drop We Charpy F at temp	Flat Side Diameter (con	to Press. IV. or conc. Ich sketch) Ithird F
a) b)	Location Top,bottom,e Channel If removable Design press s below to b Safety Valve Nozzles: Purpo	Thickneends , bolts used ure e completed Outlets: N	Crown Radius (a) for all vesse	Knuckle Radius (b) p	Elliptical Ratio (c) si at pplicable.	Concial Apex Angle Other	Hemispherical Radius fastening Drop We Charpy F at temp	Flat Side Diameter (cor (Describe or attail ight Impact	to Press. IV. or conc. Ich sketch) Ithird F
a) b)	Location Top,bottom,e Channel If removable Design press s below to b Safety Valve Nozzles: Purpo	Thickneends , bolts used ure e completed Outlets: N	Crown Radius (a) for all vesse	Knuckle Radius(b) Place Is where a	Elliptical Ratio (c) si at pplicable. Size	Concial Apex Angle Other	Hemispherical Radius fastening Drop We Charpy F at temp Location	Flat Side Diameter (con	to Press. IV. or conc. Inch sketch) Inch sketch
a) b)	Location Top,bottom,e Channel If removable Design press s below to b Safety Valve Nozzles: Purpo	Thickne nds , bolts used ure e completed Outlets: N completed Outlets: N	Crown ess Radius i (a) for all vesse lumber	Knuck le Radius	Elliptical Ratio	Concial Apex Angle Other	Hemispherical Radius fastening Drop We Charpy F at temp Location Thickness	Flat Side Diameter (cor (Describe or atta limpact of Peinforcement Material	to Press. IV. or conc. Inch sketch) Inch sketch) F How Attached
a) b)	Location Top,bottom,e Channel If removable Design press s below to b Safety Valve Nozzles: Purpo Coute	Thickne nds , bolts used ure e completed Outlets: N (Inlet, t, Drain)	for all vesse	Knuck le Radius (b) place ls where applied to the control of the co	Elliptical Ratio	Concial Apex Angle Other Mederical	Hemispherical Radius fastening Drop We Charpy Fat temp Location Thickness	Flat Side Diameter (cor (Describe or atta limpact of Reinforcement Material	to Press. IV. or conc. Inch sketch) Inch sketch) Inch sketch) Inch sketch
a) b)	Location Top,bottom,e Channel If removable Design press s below to b Safety Valve Nozzles: Purpo Coubs Inspection I Openings: I	Thickneends , bolts used ure e completed Outlets: N completed Anholes, landholes,	Crown ess Radius i (a) for all vesse lumber	Knuck le Radius (b) place ls where applied to the control of the co	Elliptical Ratio	Concial Apex Angle Other Mederical	Hemispherical Radius fastening Drop We Charpy Fat temp Location Thickness	Flat Side Diameter (cor (Describe or atta limpact of Reinforcement Material	to Press. IV. or conc. Sch sketch) ft-1 F How Attached

^{1 -} If Postweid Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Dig. I

4/21/61

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)

(b) Manufacture	d for	:	WNP 2	Richland, W	Vashington 99352	
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(Name and Address of N Certificate Holder for completed nuclear component)

- 2. Identification Certificate Holder's S/N of Part : B0772 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: Piston Tube Assembly
 - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
- 3. REMARKS: <u>Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.</u>

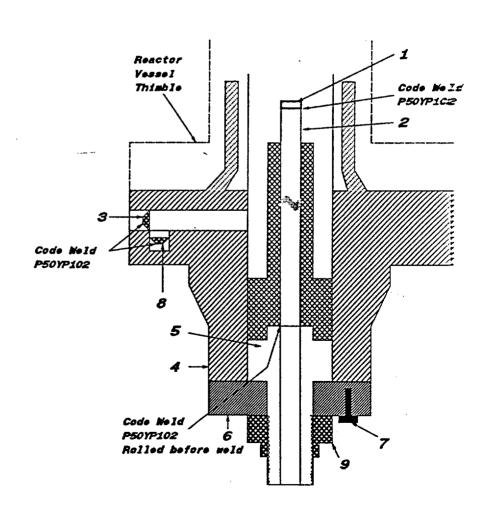
 (Brief description of service for which component was designed)

The Piston Tube Assembly consists of the Cap Item 1, the Indicator Pipe Item 2, and the Base Item 5, and the two related Code Welds.

Serial # and tester stamp is an alternate method of marking.

Sheet 2 of 2

- 1. Cap 166B9274P001 SA182 - F304 3/8" thick x 1 1/16" OD
- Indicator Tube 166B9313P001 SA312 - TP316 3/4* sch 40 - seamless pipe 0.113* wall thickness 1.065* max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37* thick x 9 5/8* OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002, P003 137C8151P001, P002 SA182 - F304 1* thick x 5.0* OD x 1.75* ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38* thick x 1.307* dia.
- Nut 137C5934P001
 XM 19 SA479
 1.30° thick x 2.62° dia.



Date: 04/27/01

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Notes

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A9663	N/A	N/A	1994		Yes, Code Class 1
CT&F	General Electric	A9663	N/A	N/A	1994	Replacement	Yes, Code Class 1
Piston Tube	General Electric	0885	N/A	N/A	1994	Replacement	Yes, Code Class 1
			1.				

- 7. Description Of Work Performed: Assembled Control Rod Drive (CRD) assembly Serial No A9663. The Control Rod Drive (CRD) assembly Serial No A9663 was assembled from all new parts in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Installed new Cylinder Tube And Flange (CT&F) assembly Serial No A9663.
 - 2) Installed new Piston Tube assembly Serial No 0885.
 - 3) Installed new Ring Flange Serial No A5398.
 - 4) Performed VT-1 visual examination on six (6) new Ring Flange Cap Screws Heat Code No AT, Heat No 531057. VT-1 visual examination results acceptable. VT-1 visual examination Report No 4-01-2-1.
 - 5) Installed six (6) new VT-1 visually examined Ring Flange Cap Screws Heat Code No AT, Heat No 531057.
 - 6) Performed VT-1 visual examination on new Piston Tube Nut Serial No 6445. VT-1 visual examination results acceptable. VT-1 visual examination Report No 4-01-2-2.
 - 7) Installed new VT-1 visually examined Piston Tube Nut Serial No 6445.
 - 8) Assembled parts and materials for Control Rod Drive (CRD) assembly Serial No A9663.

- 1) Cylinder Tube And Flange (CT&F) assembly Serial No A9663 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9663.
- 2) Piston Tube assembly Serial No 0885 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda. ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 0885.
- 3) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9663.

WOT No 01025424 09

EMERGYNORTHWEST

7	Hydrostatic Pneuma Test Pressure: Psig Component Design Pressu		ni Operating Pressure Test Temperature: ° F Temperature: ° F	Other X Nor
Remarks: See attac	hed N-2 Code Data Reports for th	ne following:	•	
Oylinder Tube And Flar Piston Tube assembly	nge (CT&F) assembly Serial No A Serial No 0855.	9663.		
•	CERTIF	FICATE OF COM	PLIANCE	-
to the rules of the Type Code Symbol Certificate Of Au Expiration Date:		le		ement <i>conforms</i>
Prepared By	Idip Singh - Program Lead Engine	Signed Signed	By Kuldip Singh - Program Le	Scurch PLE)
Date	4/27/01	Date	4/27/01	
	CERTIFICATI	E OF INSERVICE	INSPECTION	
Vessel Inspector Johnston, Rhode Is period // // Owner has perfo in accordance wi By signing this c implied, concern Furthermore, nei	d, holding a valid commiss and the State of Washing sland have inspected the comment of the comments of the large the examinations and the large the examinations and state the Inspector nor his y damage or a loss of any	ton and employed components desci- and state to ken corrective ma ASME Code, Selector nor his emp corrective measu employer shall b	I by Factory Mutual Insurance Tibed in this Owner's Reported in this Owner's Reported The best of my knowledge The best of my knowledge The best of my knowledge The best of my warranty The best of this Owner The best of this Owner The best of this Owner The best of the bes	ce Company of ort during the e and belief, the Owner's Report or ner's Report. any personal
1/1//. Inspe	ctor's Signature	Commissic	National Board, State, ar	
Date 5/5/	1/1			

NCT NO. 01025424 09 FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I V. Jak

4/27/01 1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM) 2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder) Richland, Washington 99352 (b) Manufactured for : WNP 2 (Name and Address of N Certificate Holder for completed nuclear component) 2. Identification - Certificate Holder's S/N of Part : A9663 Nat'l Bd. No. N/A (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed) Sheet 1 of 2 We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Signed <u>GE - NEBG - NF & CM - QA</u> Date: 03/15/94 (NPT Certificate Holder) Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151 Certification of Design for Appurtenance Design information on file at _____ GE Company, San Jose, California Stress analysis report on file at ____ GE Company, San Jose, California DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u> DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u> Certification of Shop Inspection I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 2/17, 1994. and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied.

Jacomi P. E. nere
Inspector's Signature NC 1231, Ohio, WC 3686 PA National Board, State, Province And No.

connected with this inspection.

concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Ite	ms 4-8 In	icl. to be comp	leted for sing	le wall ves	sels, jackets	vessels, or	shells of heat	exchangers.	<u> </u>
4:	Shell:	Material (Kind & Spec	T.S. :. No.) (Min. of Range	Nominal Thickness Specified)	in. Al	rosion lowance	In. Dia ft	in. Length	ft in.
5.	Seams:	Long		н.т.¹		R.T.		Efficiency _	x
		Girth		н.т.¹		R.T.		No. of Cours	es
6.	Heads:	(a) Material _					aterial	T.S	<u></u>
(a)		Ends) Thick		Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Side Diameter (co	to Press. nv. or conc.)
(b)	If remov	able, bolts us	ed			Other faster	ning		
7.		losure:	f werene	, Spec. No., T.S.	Size Number)		(1	Describe or attach sketch)	<u> </u>
			(De	scribe as ogee ar	nd weld, bar, etc. If t	par give dimensions,		h) Weight / Impact	ft-1b
8.	Design p	oressure	1250	ps	i at	575	F at ten	up of	F
Ite	ms 9 and	10 to be compl	eted for tube	sections					
9.	Tube She	eets: Stationa Floating	ry. Material	(Kind & Sp	Dia ec. No.)	. (Subject to pressu	Thickness _	in. Attachm	ent (Weided, Boited) ent
10. /	Tubes:	Material						lumber	Туре
									(Str. or U)
Ite	ms 11 - 1	14 incl. to be	completed for				or channels of t	neat exchangers.	
•	Shell:	Material (Kind & Spec	T.S c. No.) (Min. of Rang	Nominal Thickness Specified)	in. Al	rrosion lowance	in. Dia fi	in. Length	ft
12.	Seams:	Long		н.т		R.T.	<u> </u>	Efficiency _	x
		Girth		H.T		R.T.		No. of Cours	es
13.	Heads:	(a) Material		<u></u>	T.S	(ь) н	aterial	T.S	
	Top, bot1	tion Thick	Crown ness Radius			Concial Apex Angle	Hemispherical Radius	Flat Side Diameter (co	to Press. nv. or conc.)
(0)	Channel If remov	vable, bolts us	ed (a)	(b)	(c)	Othe	r fastening	(Describe or all	and about 1
								leight y Impact	<u> </u>
14	Design ;	2 nressure			nsi at		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		F .
		to be complete					····	-	·
		Valve Outlets:					Locat	ion	
	=	: Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size		Material	Thickness	Reinforcement Material	How Attached
17.	Inspect Opening:		No		Size Size		Location		
18.	Support	s: Skirt		(Number)	Legs		ther(Describe	Attached	(Where & How)

^{1 -} If Postweid Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)

(b)	Manufactured for	: WNP 2	Richland, Washington 99352	
		/ W	and Address of N Contificate Holder for completed nuclear component)	

2. Identification - Certificate Holder's S/N of Part : A9663 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1

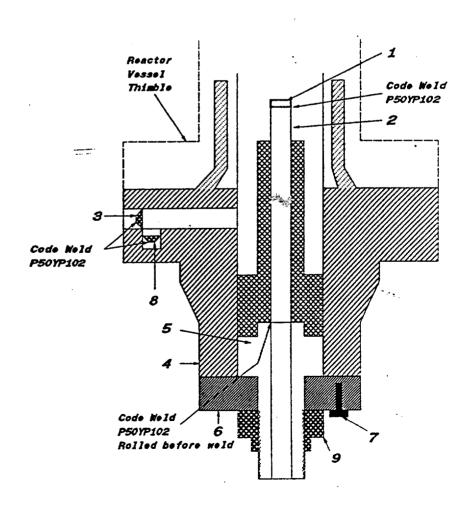
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

(Brief description of service for which component was designed)

Sheet 2 of 2

4/27/01

- 1. Cap 166B9274P001 SA182 - TP316 3/8" thick x 1 1/16" OD
- Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- Flange 919D610P001 (719E474)
 SA182 F304
 3.37" thick x 9 5/8" OD
- Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- Ring Flange 114B5122P002 SA182 - F304 1* thick x 5.0* OD x 1.75* ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



WIT NO 01025424 09

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

	Cutaro stuph
1.	4/27) © (Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)
	2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NFT Certificate Holder)
	(b) Manufactured for : WNP 2 Richland, Washington 99352
	(Name and Address of N Certificate Holder for completed nuclear component)
2.	. Identification - Certificate Holder's S/N of Part : <u>0855</u> Nat'l Bd. No. <u>N/A</u>
	(a) Constructed According to Drawing No: <u>798D228G012 Rev 36</u> Dwg. Prepared by <u>D. L. Peterson</u>
	(b) Description of Part Inspected: Piston Tube Assembly
	(c) Applicable ASME Code: Section III , Edition 1974 . Addenda Date W'75 . Case No. 1361-2 Class 1
3.	REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi, min.
	(Brief description of service for which component was designed)
	Sheet 1 of 2
1	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).
•	Date: 01/19/94 Signed GE-NEBG-NF & CM-QA BY (SC QA Representive) Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: NPT N-1151
<u></u>	
	Certification of Design for Appurtenance
	Design information on file atGE Company. San Jose, California
	Stress analysis report on file at <u>GE Company</u> . San Jose, California
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
L	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshlo</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
	Certification of Shop Inspection
	I. the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or

connected with this inspection.

NC 1231, Ohio, WC 3686 PA
National Board, State, Province And No.

^{*}Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Ite	ns 4-8 Ir	ncl. to be comp	leted for sing	le wall ves	sels, jacket	s vessels, or	shells of heat	exchangers.	
4.	Shell:	Material(Kind & Spe	T.S. c. No.) (Min. of Rang	Nominal Thickness • Specified)	in. Al	rrosion lowance	in. Dia ft	in. Length	ft ir
5.	Seams:	Long		н.т.		R.T.		Efficiency _	x
		Girth		1				No. of Cours	
6.	Heads:	(a) Material						T.S	
(a) (b)	Bottom,	n (Top Ends) Thick		Radius	Elliptical Ratio	Apex Angle		Diameter (co	
\- 7	If remov	vable, bolts us	sed	I, Spec. No., T.S.	Stre Number)	Other faste	ening	Describe or attach sketch)	
7.	Jacket (losure:	·		·				
		. 2	(De	iscribe as ogee ar	nd weld, ber, etc. If t	er give dimensions,	if bolts, describe or sketc Drop li Charpy		ft-1b
8.	Design p	pressure	1250	ps	i at	575	Fatten	np of	F
Ite	ms 9 and	10 to be comp	leted for tube	sections					
9.	Tube She	ets: Stationa Floating	ary. Material	(Kind & Spo	Dia c. No.)	(Subject to pressu	Thickness _ ure) Thickness _	in. Attachm	ent(Welded, Bolled
								lumber	
Ite	ms 11 - 1	l4 incl. to be	completed for	inner chamb	pers of jacke	ted vessels,	or channels of h	neat exchangers.	
, 11.	Shell:	Material(Kind & Spe	T.S. Ic. No.) (Min. of Pang	e Specified)	in. Al	rrosion lowance	in. Dia.' ft	in. Length	ft i
12.	Seams:	Long		в.т. 1	·	R.T.		Efficiency _	x
				1				No. of Cours	
13.	Heads:	(a) Material			T.S	(ь) н	Material	T.s	
(a) (b)	Loca Top,bot Channel	tion Thick	Crown kness Radius	Knuck le Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Side Diameter (co	to Press. nv. or conc.)
(-,	If remo	vable, bolts u	sed (a)	(b)	(c)	Othe	er fastening		
	•						Drop 1	(Describe or att leight Impact	
14	Desian (2 pressure			psi at		e Fat ten		
		to be complete						<i>y</i> 0.	
		Valve Outlets:		·····			Locati	ion	
16.	Nozz les	: Purpose (Inlet, Outlet, Drain)	Number	Dia, or Size	Туре	Material		Reinforcement Material	How Attached
	_								
17.	Inspect Opening:	s: Handholes			Size		Location		
		Threaded,	No.		Size		Location		
18.	Support		Lugs ((Number)	Legs	(Number)	Other(Describe)	Attached _	(Where & How)

^{1 -} If Postweid Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND AFFORMATION IN DIV. I As required by the Provision of the ASME Code Rules, Section III, Div. I WOT NO. 0102 5424

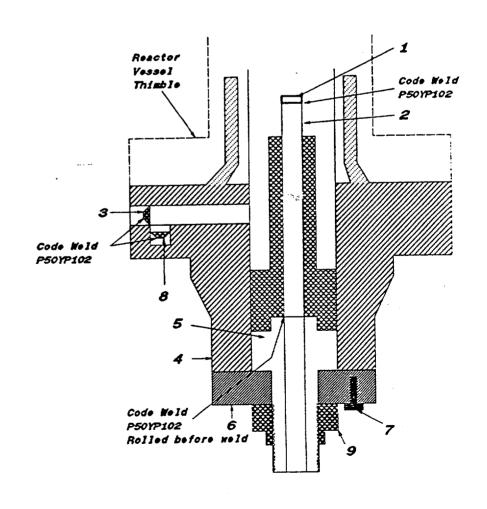
1. Manufactured & Certified by :	General Electric Company Nuclear Fuel & Components Manufact	uring (GENF&CM) Fullip Supl
<u> </u>	2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Bolder)	412) 31

	•	•
	(b) Manufactured for : WNP 2 Richland, Washington 99352 (Name and Address of N Certificate Bolder for completed nuclear component)	
2.	Nat'l Bd. No. N/A	
	(a) Constructed According to Drawing No: <u>798D228G012 Rev 36</u> Dwg. Prepared by <u>D. L. Peterson</u>	
	(b) Description of Part Inspected: <u>Piston Tube Assembly</u>	
	(c) Applicable ASME Code: Section III , Edition <u>1974</u> , Addenda Date <u>W'75</u> , Case No. <u>1361-2</u> Class <u>1</u>	
3.	REHARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.	,

(Brief description of service for which component was designed)

Sheet 2 of 2

- 1. Cap 166B9274P001 SA182 - TP316 3/8° thick x 1 1/16° OD
- Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37* thick x 9 5/8* OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30' thick x 2.62' dia.





FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Date: 12/28/00

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

Unit: Not Applicable

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No. Job No. etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Note 1

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A9155	N/A	N/A	1992		Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No A9155. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Notes 2 and 3 below.
 - 2) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 4) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No A9155.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) Control Rod Drive (CRD) assembly Serial No A9155 was previously overhauled during R-11 outage under Work Order (WO) No XY 8328. CRD Serial No A9155 was kept as a spare in the CRD vault. Liquid penetrant (PT) examination on CRD Serial No A9155 was not necessary during overhaul under this WOT No 01020130 02.
- 4) The Control Rod Drive (CRD) assembly Serial No A9155 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 5) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9155.

WOT No 01020130 02

EMERGYNORTHWEST

ests Conducte	ed: Hydrostatic Pi Test Pressure: Psig Component Design P	<u>—</u>	Il Operating Pressure Other X I Test Temperature: ° F Temperature: ° F
<i>emarks:</i> None			
	CE	ERTIFICATE OF COMP	PLIANCE
o the rules of	the ASME Code, Section	on XI.	are correct and this replacement conforms
ertificate Of	mbol Stamp: Not Applicab Authorization No.: Not A te: Not Applicable		
Prepared By _	Kuldip Singh - Program Lead	را میں Engineer (PLE)	By Kuldip Singh - Program Lead Engineer (PLE)
)ate	12/29/00	Date	12/29/00
	CERTIFI	ICATE OF INSERVICE	INSPECTION
essel Inspectohnston, Rhod Deriod <u>/ / /</u> Dwner has pe Dwner has pe	ned, holding a valid contors and the State of Ware Island have inspected formed examinations and with the requirements	emmission issued by the ashington and employed the components described and state to and taken corrective me of the ASME Code, Sec	e National Board of Boiler and Pressure I by Factory Mutual Insurance Company of ibed in this Owner's Report during the the best of my knowledge and belief, the easures described in this Owner's Report
nplied, conce urthermore, l	erning the examinations neither the Inspector no	s and corrective measu or his employer shall be of any kind arising from	res described in this Owner's Report. e liable in any manner for any personal or connected with this inspection.
11. F.	relt	Commissio	ns 7486-1486 NI
in	spector's Signature		National Board, State, and Endorsements
ate _ <u> </u>	/		

Date: 12/28/00 Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Note 1

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A9138	N/A	N/A	1993		Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No A9138. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Notes 2 and 3 below.
 - 2) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 4) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No A9138.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) Control Rod Drive (CRD) assembly Serial No A9138 was previously overhauled during R-11 outage under Work Order (WO) No XY 8321. CRD Serial No A9138 was kept as a spare in the CRD vault. Liquid penetrant (PT) examination on CRD Serial No A9138 was not necessary during overhaul under this WOT No 01020130 03.
- 4) The Control Rod Drive (CRD) assembly Serial No A9138 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 5) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A9138.

WOT No 01020130 03



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the rules of the pype Code Symbol ertificate Of Authorition Date: No repared By Kuldi	statements made in this		
ertificate Of Auth expiration Date: No repared By Kuldi		Owner's Report are	e correct and this replacement conforms
Kuldi	norization No.: Not Applicable	e	
ate	work Surt, lip Singh - Program Lead Engine	Signed By	Kuldip Singh - Program Lead Engineer (PLE)
	12/29/00	Date	12/29/00
	CERTIFICATE	OF INSERVICE IN	SPECTION
hnston, Rhode Isla eriod /// // // // // // // // // // // // /	and the State of Washington And have Inspected the control to Sand taken and examinations and taken the requirements of the retificate neither the Inspector nor his enerthe I	ton and employed by omponents describe and state to the ken corrective meas a ASME Code, Section for his employed corrective measures employer shall be lie	lational Board of Boiler and Pressure of Factory Mutual Insurance Company of ed in this Owner's Report during the e best of my knowledge and belief, the sures described in this Owner's Report on XI. er makes any warranty, expressed or as described in this Owner's Report. able in any manner for any personal a connected with this inspection.
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Inspecto	or's Signature		National Board, State, and Endorsements
ate <u> </u>		······································	

Date: 12/28/00

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: See Note 1

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD .	General Electric	6502	N/A	N/A	1974		Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6502. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 6502. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No 6502.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No 6502 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 6502.

WOT No 01020130 04

EMERGYNORTHWEST

CERTIFICATE OF COMPLIANCE a certify that the statements made in this Owner's Report are correct and this replacement conforms the rules of the ASME Code, Section XI. The code Symbol Stamp: Not Applicable pripartion Date: Not		Hydrostatic Pneumation Fest Pressure: Psig Component Design Pressure		Operating Pressure Other X No Test Temperature: ° F Temperature: ° F
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retificate Of Authorization No.: Not Applicable repiration Date: Not Applicable Repared By	o the rules of the	e ASME Code, Section XI.	•	
CERTIFICATE OF INSERVICE INSPECTION The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure issel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of and state to the best of my knowledge and belief, the viver has performed examinations and taken corrective measures described in this Owner's Report accordance with the requirements of the ASME Code, Section XI. It is signing this certificate neither the Inspector nor his employer makes any warranty, expressed or plied, concerning the examinations and corrective measures described in this Owner's Report. Commissions THSULL TIME Commissions				
Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE) CERTIFICATE OF INSERVICE INSPECTION The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure issel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of monston, Rhode Island have inspected the components described in this Owner's Report during the riod Insurance of the Asate to the best of my knowledge and belief, the ware has performed examinations and taken corrective measures described in this Owner's Report accordance with the requirements of the ASME Code, Section XI. It signing this certificate neither the inspector nor his employer makes any warranty, expressed or plied, concerning the examinations and corrective measures described in this Owner's Report. Thermore, neither the Inspector nor his employer shall be liable in any manner for any personal cury or property damage or a loss of any kind arising from or connected with this inspection. Commissions THE LUCK TIME.				
Kuldip Singh - Pregram Lead Engineer (PLE) CERTIFICATE OF INSERVICE INSPECTION The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure issel Inspectors and the State of Washington and employed by Factory Mutual insurance Company of particular insurance Company of and state to the best of my knowledge and belief, the viver has performed examinations and taken corrective measures described in this Owner's Report accordance with the requirements of the ASME Code, Section XI. The signing this certificate neither the inspector nor his employer makes any warranty, expressed or plied, concerning the examinations and corrective measures described in this Owner's Report. Thermore, neither the Inspector nor his employer shall be liable in any manner for any personal cury or property damage or a loss of any kind arising from or connected with this inspection. Commissions Commissions		1.01 00,		N. 120 061
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ury or property damage or a loss of any kind arising from or connected with this inspection. Commissions 748647486 n.Z.	nplied, concerni	ing the examinations and co	rrective measure	es described in this Owner's Report.
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Commissions 74864 7486 n.T. Inspector's Signature Rational Board, State, and Endorsements te 3/9/1/	njury or property	/ damage or a loss of any kii	na arising trom o	r connected with this inspection.
Inspector's Signature Commissions [1864] Tiffle NA National Board, State, and Endorsements te 3/9/1/	c1 1111			and I will a
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	ate 3/9/1			
	7		_	

Date: 12/28/00

Sheet: 1 Of 1
Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	5249	N/A	N/A	1974		Yes, Code Class 1
CT&F	General Electric	5249	N/A	N/A	1974	Replaced	Yes, Code Class 1
CT&F	General Electric	A9505	N/A	N/A	1994	Replacement	Yes, Code Class 1
	<u>.</u> .						

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 5249. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 5249. Liquid penetrant (PT) examination results acceptable See Note 1.
 - 3) Installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9505.
 - 4) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 5) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 6) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) Liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 5249 was performed under this WOT No 01020130 05, however this Cylinder Tube And Flange (CT&F) assembly Serial No 5249 was used under WOT No 01020130 06.
- 2) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9505.
- 3) The existing Cylinder Tube And Flange (CT&F) assembly Serial No 5249 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 4) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9505 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 5) The entire Control Rod Drive (CRD) assembly is now identified by the replacement Cylinder Tube And Flange (CT&F) Serial No A9505.

WOT No 01020130 05



sis Conduct	ed: Hydrostatic Pnet Test Pressure: Psig Component Design Pre	Te	perating Pressure Other X Rest Temperature: ° F permperature: ° F
emarks: See a	attached N-2 Code Data Report fo	r the replacement Cylinder Tub	e And Flange (CT&F) assembly Serial No A9505.
	CER	TIFICATE OF COMPLIA	ANCE
the rules of type Code Sy ertificate Of	nt the statements made in a first the ASME Code, Section with which the stamp: Not Applicable Authorization No.: Not Applicable Not Applicable	XI.	correct and this replacement conforms
repared By	1.0,00	Signed By Date	Kuldip Singh - Program Lead Engineer (PLE)
	CERTIFIC	ATE OF INSERVICE IN	SPECTION
Vessel Inspectionnation, Rhotoperiod /2// Dwner has pecting accordance By signing the mplied, concertivermore,	gned, holding a valid coming tors and the State of Wasing to State of Wasing the English the Insertificate neither the Inserting the examinations and the Insertion of Wasing the Inspector nor was stated to the Insertion of Wasing the Inspector of Wasing the Inspector of Wasing the Inspector of Wasing the Was	mission issued by the National and employed by the components describe and state to the data taken corrective meas from the ASME Code, Section is employed the corrective measures this employer shall be lie	lational Board of Boiler and Pressure / Factory Mutual Insurance Company of ed in this Owner's Report during the e best of my knowledge and belief, the sures described in this Owner's Report
<u> </u>	nspector's Signature	Commissions	7466 W/7486 M/Z National Board, State, and Endorsements
)ate <u> </u>	101		

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

1.	Nanufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
	2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)
	(b) Manufactured for : WNP 2 Richland, Washington 99352
	(Name and Address of N Certificate Holder for completed nuclear component)
2.	Identification - Certificate Holder's S/N of Part : <u>A9505</u> Nat'l Bd. No. <u>N/A</u>
	(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
	(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
	(c) Applicable ASME Code: Section III . Edition <u>1974</u> . Addenda Date <u>W'75</u> . Case No. <u>1361-2</u> Class <u>1</u>
3.	REMARKS: <u>Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.</u> (Brief description of service for which component was designed)
	Sheet 1 of 2
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).
	Date: 04/08/94 Signed GE - NEBG - NF & CM - QA By SC OF Representive)
1	Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151
	Certification of Design for Appurtenance
	Design information on file at <u>GE Company, San Jose, California</u>
	Stress analysis report on file at <u>GE Company, San Jose, California</u>
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

4/8.1994 Jecome & Energy Inspector's Signature

NC 1231, Ohio, WC 3686 PA National Board, State, Province And No.

^{*}Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Ite	ms 4-8 I	ncl. to be comp	leted for sing	gle wall ve	ssels, jacket	s vessels, or	shells of heat	exchangers.	
4.	Shell:		T.S. c. No.) (Min. of Rang			rrosion lowancei	in. Dia fi	: in. Length	ft in
5 .	Seams:	Long				R.T		Efficiency _	
		Girth		н.т.		R.T		No. of Cours	es
6.	Heads:	(a) Material _			T.S	(b) Ma	iterial	T.S	
(a) (b)	Bottom,	n (Top Ends) Thick	Crown ness Radius	Radius	Elliptical Ratio	Apex Angle		Diameter (co	to Press. nv. or conc.)
(-,		vable, bolts us	ed		Size Number)	Other faster	ning	Describe or aftach sketch)	
7.	Jacket (Closure:	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·			
		2	(De	escribe as ogee a	nd wol d, bar, etc. If t	ear give dimensions, it	f boits, describe or sketc Drop 1 Charpy	⇒h) Weight y Impact	
8.	Design p	pressure	1250	ps	i at	575	F at ter	mp of	F
Ite	ms 9 and	10 to be compl	eted for tube	sections					
9.	Tube She			(Kind & Sp	ec. No.)	Subject to pressur	re l	in. Attachm	(Welded, Botted)
10.	Tubes:	Material		0.D	in. Thic	kness	inches or gage.	lumber	
		14 / -1 4 - b -	1.4. 4 6	*					(Str. or U)
	ms 11	14 inci. to be	completed for	 			or channels of I	neat exchangers.	
11.	Shell:		T.S C. No.) (Min. of Rang			rrosion lowancei	in. Dia fi	t in. Length	ft in.
12.	Seams:	Long		H.T		R.T		Efficiency _	
		Girth				R.T		No. of Course	es
13.	Heads:	(a) Material _	•		T.S	(b) Ma	iterial	T.S	· · · · · · · · · · · · · · · · · · ·
(a)	Locat Top,bott Channel	tion Thick tom,ends	Crown ness Radius		Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Side Diameter (com	to Press. nv. or conc.)
(-,	If remov	vable, bolts us	ed (a)	(b)	(c)	Other	fastening	(Describe or att	
							Drop I	de ight	
14.	Design i	pressure			nsi at		•	np of	•
		to be complete	· · · · · · · · · · · · · · · · · · ·						<u> </u>
 15.	Safety 1	Valve Outlets:	Number		Size		Locat	ion	
16.	Nozzles	: Purpose (Inlet,			·			Reinforcement	
		Outlet, Drain)	Number	DiaL or Size	Туре	Material	Thickness	Material	How Attached
17.	Inspect Opening:		No	 	Size	<u> </u>	ocation		
	-r -····3	Threaded,	No		Size		ocation		
18.	Support		Lugs	(Number)		Ot (Number)	ther(Describe		(Where & How)

^{1 - #} Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF &

2117 Castle Hayne Road, Wilmington, North Carolina 28401

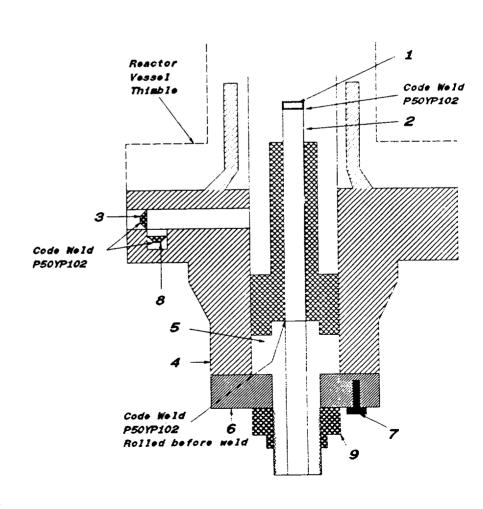
(Name and Address of NPT Certificate Holder)

(b)	Manufactured for	: WNP 2	Richland,	<u>Washington 99352</u>		
(-)		(Name	and Address of N	Certificata Holder	for completed	nuclear component

- 2. Identification Certificate Holder's S/N of Part : A9505 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
 - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)

Sheet 2 of 2

- 1. Cap 166B9274P001 SA182 - TP316 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113' wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37° thick x 9 5/8° OD
- 5. Head 129B3539P005 SA182 - F304 7/8° thick x 2.875° dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2° dia. on 4 1/8° bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



Date: 12/28/00

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	7248	N/A	N/A	1975		Yes, Code Class 1
CT&F	General Electric	7248	N/A	N/A	1975	Replaced	Yes, Code Class 1
CT&F	General Electric	5249	N/A	N/A	1974	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7248. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 7248. Liquid penetrant (PT) examination results unacceptable.
 - 3) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 5249. Liquid penetrant (PT) examination results acceptable See Note 2.
 - 4) Installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No 5249 See Note 1.
 - 5) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 6) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 7) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) Liquid penetrant (PT) examination on the replacement Cylinder Tube And Flange (CT&F) assembly Serial No 5249 was performed under WOT No 01020130 05, however this Cylinder Tube And Flange (CT&F) assembly Serial No 5249 was used under this WOT No 01020130 06.
- 2) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No 5249.
- 3) The existing Cylinder Tube And Flange (CT&F) assembly Serial No 7248 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 4) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No 5249 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 5) The entire Control Rod Drive (CRD) assembly is now identified by the replacement Cylinder Tube And Flange (CT&F) Serial No 5249.

EMERGYNORTHWEST

ests Conducted	: Hydrostatic Pneur Test Pressure: Psig Component Design Press		Operating Pressure Other X No Test Temperature: ° F Temperature: ° F
Remarks: See atta	ched N-2 Code Data Report for t	he replacement Cylinder ⁻	Tube And Flange (CT&F) assembly Serial No 5249.
	CERT	IFICATE OF COMP	LIANCE
We certify that	the statements made in ti	nis Owner's Report a	are correct and this replacement conforms
o the rules of t	he ASME Code, Section >		
	nbol Stamp: Not Applicable uthorization No.: Not Applic	able	
Expiration Date			
•	11.01		- Hulden Rich
Prepared By	Kuldip Singh - Program Lead Eng	Signed I	Kuldip Singh - Program Lead Engineer (PLE)
	12 12 0 1 m2	Date	12/29/00
Date	199100	Date)-110-
	CERTIFICA	TE OF INSERVICE	INSPECTION
	OLIIII IOA	TE OF MOLITICE	
, the undersign	ned, holding a valid comn	nission issued by the	e National Board of Boller and Pressure
Vessel Inspect	ors and the State of Washi	ington and employed	I by Factory Mutual Insurance Company of ribed in this Owner's Report during the
onnston, Hnode Deriod	Island have inspected the	and state to	the best of my knowledge and belief, the
Owner has per	formed examinatións and	l taken corrective me	easures described in this Owner's Report
n accordance	with the requirements of	the ASME Code, Se	ction XI.
By signing this	certificate neither the ins	ipector nor his empl ad corrective measu	loyer makes any warranty, expressed or res described in this Owner's Report.
Furthermore, n	either the inspector nor i	is employer shall b	e liable in any manner for any personal
injury or prope	rty damage or a loss of a	ny kind arising from	or connected with this inspection.
1	120		
2/11/00	let trest	Commissio	ons 7486 W/ 7486 KII
ins	pector's Signature		National Board, State, and Endorsements
2/1	101		
Date <u>// </u>	101		
′ /			

FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES As required by the Provisions of the ASME Code Rules General Electric Company, Castle Hayne Rd., Wilmington, N. (Name and address of Manufacturer of part) General Electric Company, San Jose, California (Name and address of Manufacturer of completed nuclear component) 2. Identification-Manufacturer's Serial No. of Part ___ (a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson (b) Description of Part Inspected Control Rod Drive, Model #7RDB144 Cl (c) Applicable ASME Code: Section III, Edition 1971, Addanda date None, Case No. 1361-1 Class 1 Standard part for use with Reactor. Hydrostatically tested at 1820 psi (Brief description of service for which component was designed) minimum. We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III. (The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included. __ 19_74 Signed GE, BWRSD - REM (Manufacturer) ficate of Authorization Expires June 20, 1975 NPT - 462Certificate of Authorization No. -CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable) Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington Stress analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488 Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488 CERTIFICATE OF SHOP INSPECTION I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessei Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this 74 and state that to the best of my knowledge Manufacturer's Partial Data Report on December 30 19 14, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

___ Commissions <u>NC 723</u>

Inspector's Signature

1766

National Board, State, Province and No.

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FORM N-2 (back)

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. Heads:	(a) Material _			_ T.S		_ (b) Material		T.S	. <u></u>
(Top	Location , bottom, ends)	Thickness	Crown Radius	Knuckie Redius	Elliptical Ratio	Conical Apex Angle	Hemispherical Rudius	Flat Diumeter	Side to Press. (Conv. or Conc.)
									
If remo	vable, bolts us	ed(Mater	ial, Spec. N	o., T.S., Siz	e, Number)	Other faster	(r	escribe or at.ac	h sketch.
. lucket	Closure:					···			
,	(Descri	be as ogee and	weld, bar, e	tc. If bargive	e dimensions,	if bolted, describ		Weight	
	•	250			5753:		Char	•	(t+i)
). Design	pressure ²				575		_°F acte	•	
						ten i	1	500	
	10 to be compl					-	J. J. Carlot	# Safe Pair 1 Later	
Tube S	Sheets: Stationa	rv. Material		Di	a	Thick	ness in.	Attachment	<u>. I</u>
		(Kind & Spe	c. No.)	(Subject to	pressure)		, (Welded, Balted,
	Floating	3. Material		Di	ß	Thick	nessin.	Attachment	
. Tubes:	: Material								Otto or C
ems 11-1	4 incl. to be co	moleted for i	nner cham	hers of iac	keted vesse	ls, or channels	C 1 _1	nangers.	
								angers.	
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. Seams:	(Kind & Sp	ec. No.) (Min. H.	of Range Sp	hickness _ pecified)	in. Allow	vancein.	Dia fr Efficiency No. of Course	·s	_ "
2. Seams:	(Kind & Sp	ec. No.) (Min. H.	of Range Sp	hickness _ pecified)	in. Allow	vancein.	Dia fr Efficiency No. of Course	s T.S	
. Seams:	(Kind & Sp : Long Girth (a) Material	Thickness	of Range Sp. T. 1 Crown Radius	T.S Knuckle Radius	R.T	(h) Material Contral Apex Angle	Efficiency No. of Course Hemispherica	T.ST	Side to Preiss (Cinv. or Cini.
3. Heads (a) Top (b) Chi	(Kind & Sp : Long Girth (a) Material Locution p, bottom, ends	Thickness	of Range Sp. T. 1 Crown Radius	T.S. Knuckle	R.T Elliptical Ratio	(h) Material Contest Apex Angle	Diafr Efficiency No. of Course Hemispherica Radius	T.S.	Side to Press. (Conv. or Clair)
2. Seams: 3. Heads (a) Top (b) Chi	(Kind & Sp : Long Girth (a) Material Locution p, bottom, ends	Thickness	of Range Sp. T. 1 Crown Radius	T.S. Knuckle	R.T Elliptical Ratio	(h) Material Contest Apex Angle	Diafr Efficiency No. of Course Hemispherica Radius	T.S	Side to Preis. (Cinv. or Cin.
3. Heads (a) Top (b) Chi	Girth Girth (a) Material Locution p, bottom, ends annel ovable, bolts us	Thickness	T. 1 Crown Radius	T.SKnuckie Radius	in. Allow	(h) Material Contral Apox Angle	Diafr Efficiency No. of Course Hemispherica Radius ner fastening Drop (Tha	T.S. I Flat Diameter (Describe or a Weight	Side to Press. (Conv. or Cin.)
3. Heads (a) Top (b) Chi	(Kind & Sp : Long Girth (a) Material Locution p, bottom, ends	Thickness	T. 1 Crown Radius	T.SKnuckie Radius	in. Allow	(h) Material Contral Apox Angle	Diafr Efficiency No. of Course Hemispherica Radius ner fastening Drop (Tha	T.S. I Flat Diameter (Describe or a Weight	Side to Press. (Conv. or Cin.)
3. Heads (a) Top (b) Chi If remo	Girth Girth (a) Material Locution p, bottom, ends annel ovable, bolts us	Thickness	T. 1 Crown Radius	T.S. Knuckle Radius psi a	in. Allow		Diafr Efficiency No. of Course Hemispherica Radius ner fastening Drop Cha	T.S. I Flat Diameter (Describe or a Weight	Side to Preissi (Cinv. or Cini-
(a) Top (b) Chi If remo	Girth Girth (a) Material Locution p, bottom, ends annel ovable, bolts us pressure 2 w to be complet	Thickness sed (a)	T. 1 Crown Radius (1)	T.SKnuckle Radius	in. Allow R.T		Dia. fr. Efficiency No. of Course Radius Drop Cha.	T.S I Fiar Diameter (Describe or a Weight rpy Impact rmp. of	Side to Preins. (Conv. or Cin.
(a) Top (b) Chi If remo	(Kind & Sp : Long Girth (a) Material Locution p, bottom, ends annel ovable, bolts us i pressure 2 w to be complet	Thickness sed (a)	T. 1 Crown Radius (1)	T.SKnuckle Radius	in. Allow R.T		Dia. fr. Efficiency No. of Course Radius Drop Cha.	T.S I Fiar Diameter (Describe or a Weight rpy Impact rmp. of	Side to Preins. (Conv. or Cin.
(a) Top (b) Chi If remo A. Design ems belov 5. Safety 6. Nozzie Purpoi	(Kind & Sp. Long Girth (a) Material Locution p, bottom, ends annel ovable, bolts us pressure 2 w to be complet Valve Outlets:	Thickness ed (a) ed for all ves	Tof Range Sg. T. 1 Crown Radius (1)	T.S	in. AllowR.T	(h) Material Conical Apex Angle Oth	Diafr Efficiency No. of Course Hemispherica Rudius ner fastening Cha oF at to	T.S I Fiar Diameter (Describe or a Weight rpy Impact rmp. of	Side to Preins. (Conv. or Cin.
2. Seams: (a) Top (b) Chi If remo 4. Design cems belov 5. Safety 6. Nozzie Purpoi	(Kind & Sp. Long Girth (a) Material Locution p, bottom, ends annel ovable, bolts us pressure 2 w to be complet Valve Outlets:	Thickness sed (a)	Tof Range Sg T. 1 Crown Radius (1)	T.S	in. AllowR.T		Diafr Efficiency No. of Course Hemispherica Radius Drop Cha OF at to	T.S. I Flat Diameter (Describe or a Weight rpy Impact rmp. of	Side to Preio. (Cinv. or Cin.) attach sketch
2. Seams: (a) Top (b) Chi If remo 4. Design tems below 5. Safety 6. Nozzle Purpoi Outlet	(Kind & Sp. Long Girth (a) Material Locution p, bottom, ends annel ovable, bolts us pressure 2 w to be complet Valve Outlets:	ec. No.) (Min. H. Thickness sed (a) ed for all ves Number	Tof Range Sp. T. 1 Crown Radius (1)	T.S. Knuckle Radius psi a re applicab	in. AllowR.T		Diafr Efficiency No. of Course Ridius Drop Cha. OF at to	T.S If Fia: Diameter (Describe or a Weight rpy Impact rmp. of deinforcement Material	Side to Prein. (Cinv. or Cin.) Strach Sketch
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2. Seams: 3. Heads (a) Top (b) Chi If reme 4. Design tems belov 5. Safety 6. Nozzie Purpoi Outlei	(Kind & Sp. (A) Material Location p, bottom, ends annel byable, bolts us pressure 2 w to be complet Valve Outlets: ps: pse (Inlet, t, Drain)	ec. No.) (Min. H. Thickness sed (a) ed for all ves Number	Tof Range Sg T. 1 Crown Radius (1)	T.S Knuckle Radiusb) psi a re applicab	in. AllowR.T		Diafr Efficiency No. of Course Hemispherica Radius Drop Cha oF at te	(Describe or a Weight rpy Impact rmp. of	Side to Press. (Conv. or Cin.) Attach Sketch Fig. 19
2. Seams: 3. Heads (a) Top (b) Chr If reme 4. Design tems below 15. Safety 16. Nozzie Purpoi Outlee 17. Inspec	(Kind & Sp. (Kind & Sp. (a) Material Location p, bottom, ends annel byable, bolts us pressure 2 w to be complet Valve Outlets: eq (Inlet, t, Drain) ction Manholes ngg: Handhole	ec. No.) (Min. H. Thickness ed (a) ed for all ves Number Number	Tof Range Sg T. 1 Crown Radius (1) Ssels when	T.S Knuckle Radius psi a re applicab Size ize ize ize	in. AllowR.T	content Content Apex Angle Oction ocation ation ation ation ation	Diafr Efficiency No. of Course Hemispherica Radius Drop Cha. OF at to	T.S I Flat Diameter (Describe or a Weight rpy Impact rmp. of deinforcement Material	Side to Press. (Conv. or Cin.) How Attached

Date: 12/28/00

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: See Note 1

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	7305	N/A	N/A	1975		Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7305. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2 below.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 7305. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No 7305.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No 7305 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 7305.

EMERGYNORTHWEST

CERTIFICATE OF COMPLIANCE Ver certify that the statements made in this Owner's Report are correct and this replacement conforms of the ASME Code, Section XI. Type Code Symbol Stamp: Not Applicable Pertificate Of Authorization No.: Not Applicable Expiration Date: Not Applicable Date: Not Applicable Expirat		ted: Hydrostatic Pneuma Test Pressure: Psig Component Design Pressu	<u> </u>	Operating Pressure Other X N Test Temperature: ° F Temperature: ° F
CERTIFICATE OF INSERVICE INSPECTION the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure elessel inspectors and the State of Washington and employed by Factory Mutual Insurance Company of ohnston, Rhode Island have inspected the components described in this Owner's Report during the examinations and taken corrective measures described in this Owner's Report. Turthermore, neither the Inspector nor his employer shall be liable in any manner for any personal nigury or property damage or a loss of any kind arising from or connected with this inspection.	<i>lemarks:</i> Non	e		
CERTIFICATE OF INSERVICE INSPECTION the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure elessel inspectors and the State of Washington and employed by Factory Mutual Insurance Company of ohnston, Rhode Island have inspected the components described in this Owner's Report during the examinations and taken corrective measures described in this Owner's Report. Turthermore, neither the Inspector nor his employer shall be liable in any manner for any personal nigury or property damage or a loss of any kind arising from or connected with this inspection.				
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CERTIFICATE OF INSERVICE INSPECTION The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure ressel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of chinston, Rhode Island have inspected the components described in this Owner's Report during the exeminations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI. The significant of the State of Washington and employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Insurance Company of the ASME Code, Section XI. Commissions 145/44 August 2450 Aug		CERTIFI	CATE OF COMP	LIANCE
Type Code Symbol Stamp: Not Applicable Expiration Date: Not Ap			Owner's Report &	are correct and this replacement conforms
Signed By Signed By Kuldip Singh - Program Lead Engineer (PLE) Signed By Kuldip Singh - Program Lead Engineer (PLE) Signed By Kuldip Singh - Program Lead Engineer (PLE) Signed By Kuldip Singh - Program Lead Engineer (PLE) Signed By Kuldip Singh - Program Lead Engineer (PLE) Signed By Kuldip Singh - Program Lead Engineer (PLE) Signed By Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Progra				
Expiration Date: Not Applicable Commissions Commissio			e	
CERTIFICATE OF INSERVICE INSPECTION the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure lessel inspectors and the State of Washington and employed by Factory Mutual Insurance Company of conniston, Rhode Island have inspected the components described in this Owner's Report during the period 12/10/10/10/10/10/10/10/10/10/10/10/10/10/				
CERTIFICATE OF INSERVICE INSPECTION the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure lessel inspectors and the State of Washington and employed by Factory Mutual Insurance Company of conniston, Rhode Island have inspected the components described in this Owner's Report during the period 12/10/10/10/10/10/10/10/10/10/10/10/10/10/	Prenared Bu	Much Sign	Signad S	Mulach Sameh
CERTIFICATE OF INSERVICE INSPECTION the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure (essel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of conston, Rhode Island have inspected the components described in this Owner's Report during the veriod 12/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/	repared by	Kuldip Singh - Program Lead Engine	er (PLE)	Kuldip Singh - Program Lead Engineer (PLE)
CERTIFICATE OF INSERVICE INSPECTION the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure lessel inspectors and the State of Washington and employed by Factory Mutual Insurance Company of obniston, Rhode Island have inspected the components described in this Owner's Report during the period of the less of my knowledge and belief, the lawner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions Office Inspector of the North Park Commissions Office Inspector Inspection.)ate	12/29/00	Date	4-1
the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Yessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Conston, Rhode Island have inspected the components described in this Owner's Report during the Property of the State 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.				<u> </u>
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Sessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Conniston, Rhode Island have inspected the components described in this Owner's Report during the Deriod 13/5/6/6 to 3/9/6/6 and state to the best of my knowledge and belief, the Development of the Asker corrective measures described in this Owner's Report on accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions 7/5/6/7/7/7/7/7/7/7/7/7/7/7/7/7/7/7/7/7/		CERTIFICATE	OF INSERVICE	INSPECTION
Sessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Conniston, Rhode Island have inspected the components described in this Owner's Report during the Deriod 13/5/6/6 to 3/9/6/6 and state to the best of my knowledge and belief, the Development of the Asker corrective measures described in this Owner's Report on accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions 7/5/6/7/7/7/7/7/7/7/7/7/7/7/7/7/7/7/7/7/				
conniston, Rhode Island have inspected the components described in this Owner's Report during the deriod 13/5/6/6 to 2/9/6/6 and state to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions 7/5/6/7/5/7/5/7/5/7/5/7/5/7/5/7/5/7/5/7/	, the unders /essel inspe	igned, holding a valid commiss octors and the State of Washingt	sion issued by the	National Board of Boiler and Pressure
and state to the best of my knowledge and belief, the owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions 7/5/4/7487 PUT	ohnston, Rho	ode Island <i>have inspected the co</i>	omponents descri	bed in this Owner's Report during the
Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions 7/5/4/7/186	eriod <u>/Հ/</u>	5/00 to 3/9/0/	and state to t	he best of my knowledge and belief, the
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curthermore, neither the Inspector nor his employer shall be liable in any manner for any personal nijury or property damage or a loss of any kind arising from or connected with this inspection. Commissions 7/5/4/7486 N.T.				
Commissions 7486 WI				
	njury or pro	perty damage or a loss of any l	kind arising from	or connected with this inspection.
		he of could	Commissio	15 748/W/7486 NI
Pate 3/9/01	/*			
Pate <u>5/ // c/</u>	<u> </u>	Inspector's Signature		National Board, State, and Endorsements
	<u> </u>	Inspector's Signature		National Board, State, and Endorsements



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Date: 12/28/00

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

- 5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: See Note 1
 - (b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	7037	N/A	N/A	1975		Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7037. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2 below.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 7037. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No 7037.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No 7037 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 7037.



	Hydrostatic Pneu Test Pressure: Psig Component Design Pres		Operating Pressure Test Temperature: ° F Temperature: ° F	_ Other
Remarks: None				
	CER	TIFICATE OF COMPL	LIANCE	
•	ne statements made in a e ASME Code, Section		re correct and this replace	ement <i>conforms</i>
	pol Stamp: Not Applicable thorization No.: Not Appli	l. l .		
eruncate Or Au Expiration Date:		cable		
•	Middle O)(aa	Alach S	2.26
repared By Ku	aldip Singh - Program Lead En	Signed B	Kuldip Singh - Program Le	ad Engineer (PLE)
Date	12/29/00	Date	12/29/00	• ,
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	CERTIFIC	ATE OF INSERVICE	INSPECTION	
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			National Board of Boile	
			by Factory Mutual Insurance bed in this Owner's Repo	
period <u>/3/5/</u>	0 to 3/9/0	\angle and state to t	he best of my knowledge	and belief, the
•			asures described in this	Owner's Report
	ith the requirements of certificate neither the In	· · · · · · · · · · · · · · · · · · ·	uon Ai. Oyer makes any warranty	. expressed or
mplied, concern	ing the examinations a	and corrective measur	es described in this Owr	ner's Report.
			liable in any manner for	
njury or prop e rt	y damage or a loss or a	iny kina arising irom	or connected with this in	spection.
11/11/2	Control		7110/11/17/10	
Inspe	ector's Signature	Commission	National Board, State, an	
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FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Date: 12/28/00

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

Unit: Not Applicable

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

6. Identification Of Components Repaired Or Replaced And Replacement Components

General Electric General Electric	6392 6392	N/A	N/A	1975		Yes, Code Class 1
	6392	ALIA I				
		N/A	N/A	1975	Replaced	Yes, Code Class 1
General Electric	A9157	N/A	N/A	1992	Replacement	Yes, Code Class 1
_						
		ASTOT	- ASIS7	ASTOY N/A		. Topiacomon

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6392. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 6392. Liquid penetrant (PT) examination results unacceptable.
 - 3) Installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9157.
 - 4) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 5) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 6) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9157.
- 2) The existing Cylinder Tube And Flange (CT&F) assembly Serial No 6392 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 3) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9157 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is now identified by the replacement Cylinder Tube And Flange (CT&F) Serial No A9157.

EMERGYNORTHWEST

Tests Condu	cted: Hydrostatic Pnei Test Pressure: Psig Component Design Pre		I Operating Pressure Other X No Test Temperature: ° F Temperature: ° F
Remarks: Se	e attached N-2 Code Data Report fo	r the replacement Cylinder	Tube And Flange (CT&F) assembly Serial No A9157.
	CER	TIFICATE OF COMP	PLIANCE
to the rules Type Code : Certificate (of the ASME Code, Section Symbol Stamp: Not Applicable Of Authorization No.: Not Appli Date: Not Applicable	XI. icable いなら Signed I	By Judy Suph Kuldip Singh - Program Lead Engineer (PLE)
	CERTIFICA	ATE OF INSERVICE	INSPECTION
Vessel Insp. Johnston, Rh period /2/ Owner has p in accordan By signing to implied, conforthermore	ectors and the State of Wash ode Island have inspected the state of Wash ode Island have inspected the state of the state of the security of the security of the examinations are, neither the Inspector nor its security of the security of t	nington and employed te components description and state to to d taken corrective me the ASME Code, Sec spector nor his employed this employer shall be	by Factory Mutual Insurance Company of ibed in this Owner's Report during the the best of my knowledge and belief, the easures described in this Owner's Report stion XI. Toyer makes any warranty, expressed or res described in this Owner's Report. The liable in any manner for any personal or connected with this inspection.
	Inspector's Signature		National Board, State, and Endorsements

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I Hanufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM 2117 Castle Havne Road, Wilmington, North Caroline, 28401

1.	Manufactured & Certified by: <u>General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)</u>
	2117 Castle Hayne Road, Wilmington, North Carolina, 28401
	(Name and Address of NPT Certificate Holder)
	(b) Manufactured for : WNP 2 Richland, Washington 9935.2
2	(Name and Address of N Certificate Holder for completed nuclear component)
	Identification - Certificate Holder's S/N of Part : A9157 Nat'l Bd. No. N/A
	(a) Constructed According to Drawing No: <u>919D258G003 Rev 17</u> Dwg. Prepared by <u>D. L. Peterson</u>
	(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
	(c) Applicable ASME Code: Section III . Edition <u>1974</u> . Addenda Date <u>W75</u> . Case No. <u>N207 1361-2</u> Class <u>1</u>
3.	REMARKS: <u>Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.</u> (Brief description of service for which component was designed)
	• • • • • • • • • • • • • • • • • • • •
	Sheet 1 of 2
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Date: 12/22/92 Signed GE-NEBG-NF & CM-OA By SC OA Representive) Certificate of Authorization Expires: 6/16/93 Certification of Authorization No.: NPT N-1151
	Certification of Degign for Degign
	Certification of Design for Appurtenance
	Design information on file at <u>GE Company</u> . San Jose. California
	Stress analysis report on file at <u>GE Company. San Jose. California</u>
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on accordance with the ASME Code Section III.

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

Dete 1992 Inspector's Signature

NC 1231, Ohio, WC 3686 PA
National Board, State, Province And No.

^{*}Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Ite	ms 4-8 Incl. to be completed for sing	ple wall vessels, jackete	s vessels, or shells of heat	exchangers.
4.	Shell: MaterialT.S. (Kind & Spec. No.) (Min. of Rang	_ Thickness in. Al	rrosion lowance in. Dia ft	in. Length ft
5.	Seams: Long	н.т.	R.T	Efficiency%
	Girth	н.т. 1	R.T	No. of Courses
6.	Heads: (a) Material	T.S		
(a) (b)	Location (Top Bottom, Ends) Thickness Radius	Knuckle Elliptical Radius Ratio	Concial Hemispherical Apex Angle Radius	Flat Side to Press. Diameter (conv. or conc.)
7	Jacket Closure:	il, Spec. No., T.S. Size Number)	Other fastening(Describe or attach sketch }
		ecribe as ogee and weld, ber, etc. If b	er give dimensions, if bolts, describe or state Drop \Charp Charp	ch) Weight y Impact ft-lb
			5/5 F at ter	mp of F
	ms 9 and 10 to be completed for tube			
		(Kind & Spec. No.)	(Subject to pressure) Thickness	in. Attachment
10.	Tubes: Material	O.D in. Thick	Kness inches or gage.	Number Type(Str. or U)
11.	Shell: Material T.S. (Kind & Spec. No.) (Min. of Range	Nominal Con Thickness in. All pe Specified)	rrosion lowance in Dia. f	t in. Length ft in
12.	Seams: Long	· 1		X
13.	Girth Heads: (a) Material	H.T T.S		No. of Courses
(a) (b)	Location Thickness Radius Top,bottom,ends Channel	Radius Ratio	Concial Hemispherical Apex Angle Radius	Flat Side to Press. Diameter (conv. or conc.)
	If removable, bolts used (a)	(b)(c)		(Describe or attach sketch) We ight
14.	Design pressure	nei at	•	0
	ems below to be completed for all ves		r at te	ip 0: F
	Safety Valve Outlets: Number		Locat	·
	Nozz les: Purpose (Inlet,	31Ze	Locat	ion
10.	Outlet, Drain) Number	Dia, or Size Type	Meterial Thickness	Reinforcement Meterial How Attached
17.	Openings: Handholes, No.	Size Size Size	Location	
18.	Supports: Skirt Lugs _	Legs	Other (Describe	Attached(Where & How)

^{1 -} If Postwold Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFIC. E HOLDERS' DATA REPORT FOR NUCL A PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401

(Name and Address of NPT Certificate Holder)

(b)	Manufactured for :	WNP 2	Richland, Washington 99352	
		(Name	and Address of N Certificate Holder for completed nuclear component)	

- 2. Identification Certificate Holder's S/N of Part : A9157 Nat'l Bd. No. NA
 - (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
 - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

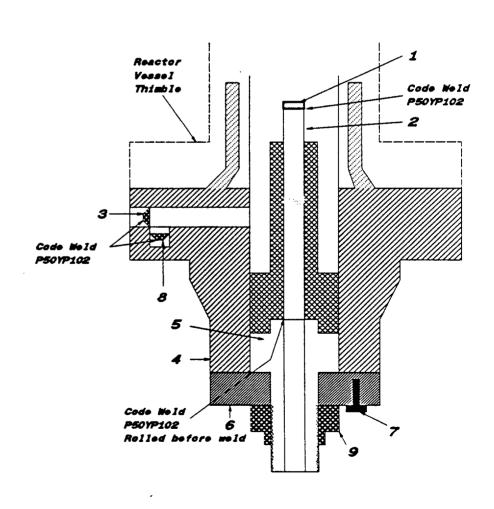
 (Brief description of service for which component was designed)

Sheet 2 of 2

1. Cap 166B9274P001 SA182 - F304 3/8° thick x 1 1/16° OD

2. indicator Tube 166B9313P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness J.065" max. dia.

- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002, P003 137C8151P001, P002 SA182 - F304 1* thick x 5.0* OD x 1.75* ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2° dia. on 4 1/8° bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30° thick x 2.62° dia.





FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Date: 12/28/00

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

Unit: Not Applicable

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No. Job No. etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: See Note 1

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda.

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	6229	N/A	N/A	1975		Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6229. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2 below.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 6229. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No 6229.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No 6229 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 6229.



Test Pressure: Psig Component Design I	Pneumatic Nominal Operating Pressure Other X N Test Temperature: ° F Pressure: Psig Temperature: ° F
emarks: None	
	
C	ERTIFICATE OF COMPLIANCE
Ve certify that the statements made	in this Owner's Report are correct and this replacement conforms
o the rules of the ASME Code, Secti	ion XI.
Type Code Symbol Stamp: Not Applical Certificate Of Authorization No.: Not A	
xpiration Date: Not Applicable	- photosis
Liden &	" Ulden Elle
repared By Wildip Singh - Program Lea	Signed By Kuldip Singh - Program Lead Engineer (PLE)
Date 129 03	Date 129/00
CERTIF	FICATE OF INSERVICE INSPECTION
	ommission issued by the National Board of Boiler and Pressure
	Vashington and employed by Factory Mutual Insurance Company of difference described in this Owner's Report during the
	d the components described in this Owner's Report during the
wner has performed examinations	and taken corrective measures described in this Owner's Report
n accordance with the requirements	
	e Inspector nor his employer makes any warranty, expressed or ns and corrective measures described in this Owner's Report.
	nor his employer shall be liable in any manner for any personal
njury or property damage or a loss	of any kind arising from or connected with this inspection.
	Commissions 7486W/7486 NI
May Co	Commissions / · · · · / / / · · · · / · / · ·
Inspector's Signature	National Board, State, and Endorsements
Inspector's Signature	

Date: 12/28/00

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	7195	N/A	N/A	1975		Yes, Code Class 1
CT&F	General Electric	7195	N/A	N/A	1975	Replaced	Yes, Code Class 1
CT&F	General Electric	A9325	N/A	N/A	1995	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7195. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 7195. Liquid penetrant (PT) examination results unacceptable.
 - 3) Installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9325.
 - 4) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 5) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 6) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9325.
- 2) The existing Cylinder Tube And Flange (CT&F) assembly Serial No 7195 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 3) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9325 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is now identified by the replacement Cylinder Tube And Flange (CT&F) Serial No A9325.



Fests Conducted	Test Pressure:		<u> </u>	Pperating Pressure est Temperature: ° emperature: ° F	
Remarks: See atta	ached N-2 Code Da	a Report for the replace	ement Cylinder Tul	oe And Flange (CT&F) a	ssembly Serial No A9325.
		CERTIFICATI	E OF COMPL	ANCE	
We certify that to the rules of t Type Code Syn Certificate Of A Expiration Date	he ASME Code nbol Stamp: Not outhorization No	, Section XI. Applicable	er's Report ard	e correct and this re	eplacement <i>conforms</i>
Prepared By	Dudy	Semple am Lead Engineer (PLE	Signed By Date	Kuldip Singh - Progra	am Lead Engineer (PLE)
	c	ERTIFICATE OF	INSERVICE II	ISPECTION	
Vessel Inspection Johnston, Rhode period	ors and the Stand have instand have instand to some the control of the standard standard in the standard in th	te of Washington and pected the compositions and taken comments of the ASM the institutions and corrector nor his employed.	nd employed benents describend state to the corrective mealer Code, Section his employetive measure oyer shall be l	y Factory Mutual Insed in this Owner's a best of my knowlesures described in on XI.	Report during the ledge and belief, the this Owner's Report ranty, expressed or Owner's Report. If for any personal
11 Ins	pector's Signature	> .	Commissions	National Board, Sta	ate, and Endorsements

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

	Manufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM) 2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)
	(b) Manufactured for : WNP 2 Richland, Washington 99352 (Name and Address of N Certificate Holder for completed nuclear component)
2.	Identification - Certificate Holder's S/N of Part : A9325 Nat'l Bd. No. N/A
	(a) Constructed According to Drawing No: <u>919D258G003 Rev 19</u> Dwg. Prepared by <u>D. L. Peterson</u>
	(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
	(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
3.	REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
	Sheet 1 of 2
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Date: 06/27/95 Signed GE-NEBG-NF&CM-QA (NPT Certificate Holder) SC ON Representive) Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: NPT N - 1151
	Certification of Design for Appurtenance
	Design information on file atGE Company . San Jose . California
	Stress analysis report on file at GE Company . San Jose . California
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
	Certification of Shop Inspection
	I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on

Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

Inspector's Signature

NC 1231, Ohio, WC 3686 PA

National Board, State, Province And No.

FORM N-2 (back)

Ite	ms 4-8	Incl. to i	oe complete	d for sing	gle wall ve	ssels, jacket	s vessels, or	shells of heat	exchangers.	
4.	Shell:	Materia (K	IT	.S. (Min. of Rang	Nominal Thickness e Specified)	in. A	orrosion llowance	in. Dia fi	in. Leng	th ft
5.	Seams:	Long			н.т.		R.T.		Efficiency	x
		Girth _			1					rses
6.	Heads:	(a) Mate	erial			T.S				
(a)			Thickness	Crown Radius		Elliptical Ratio	Concial Apex Angle	Hemispherical Radius		de to Press. conv. or conc.)
(b)			its used _				Other faste	ning		
7.				(Materia	I, Spec. No., T.S.	Size Number)		ning	Describe or attach state	
					ecribe as ogee a	nd weld, bar, etc. Y	ber give dimensions,		le ight	6. 1.
8.	Design	pressure	·	1250	ps	i at	575	•	mp of	ft-1b
lte	ms 9 and	10 to be	completed	for tube	sections			 		
9.	Tube St	neets: Si	ationary.	Material	(IGnd & Son	Dia	(Subject to conce	Thickness	in. Attac	hment (Welded, Boiled)
		F	loating.	Material		Dia	1.	Thickness	in. Attac	(Welded, Boiled)
10.	Tubes:	Materia [*]	·		0.0	in. Thic	kness	inches or gage. N	umber	Type(Str. or U)
Ite	ms 11 -	14 incl.	to be como	leted for	inner cham	bers of jacke	ted vessels.	or channels of h	eat exchangers	· · · · · · · · · · · · · · · · · · ·
11.	Shell:	Materia (K	Tind & Spec. No.)	.S	Nominal Thickness • Specified)	in. Al	rrosion lowance	in. Dia ft	in. Leng	th ft
12.	Seams:	Long			н.т.		R.T.		Efficiency	x
		Girth _		·			R.T.		No. of Cou	rses
13.	Heads:	(a) Mate	erial			T.S	(b) Ma	aterial	T.S.	···
	Top.bot	ition tom,ends	Thickness	Crown Radius	Knuck le Radius	Elliptical Ratio	Concial Apex Angle	Hemispherical Radius	Flat Si Diameter (de to Press. conv. or conc.)
(0)	Channel If remo	ı ovable, bo	lts used (a)	(b)	(c)	Other	r fastening		
									(Describe or le ight Impact	attach stetch)
14.	Design	pressure			1	osi at		Fat tem	p of	• F
Ite	ns below	to be co	mpleted for	r all vess	els where	applicable.				,
15.	Safety	Valve Out	lets: Num	ber _		Size		Locati	on	
		C: Purpose (I	niet,	umber	Dia. or Size	Туре	Material	Thickness	Pleinforcement Material	How Attached
17.	Inspect Opening	s: Hand	holes, No	•		Size		ocation		
18.	Support	s: Skir	t	_ Lugs _		Legs	Ot Number)	(Describe)		(Where & How)

^{1 -} If Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

1.	Manufactured & Certified by :	General Electric Company Nuclear Fuel & Components Manufacturing	(GE NF	& CM)
	•		0.	د د

2117 Ç	astle F	<u>layne</u>	Road.	Wil	<u>lmin</u>	aton.	North	Caroli	na	<u> 2840</u>
	(Name	and A	ddress	of	NPT	Cartif	icate	Holder)	

Julail Burgs

(b) Manufactured for : WNP 2 Richland, Washington 99352

(Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : A9325 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 919D258G003 Rev 19 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

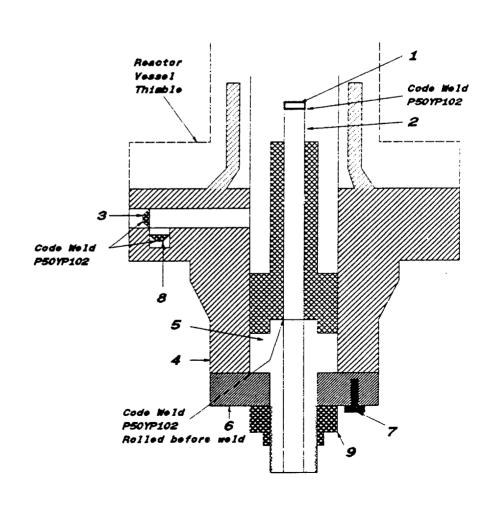
(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

(Brief description of service for which component was designed)

Sheet 2 of 2

- Cap 166B9274P001 SA182 - F316 3/8" thick x 1 1/16" OD
- Indicator Tube 167B4908P001 SA312 - TP316 3/4* sch 40 - seamless pipe 0.113* wall thickness 1.065* max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- Flange 919D610P001 (719E474)
 SA182 F304
 3.37* thick x 9 5/8* OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



Date: 12/28/00

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	6595	N/A	N/A	1975		Yes, Code Class 1
Piston Tube	General Electric	8013	N/A	N/A	1975	Replaced	Yes, Code Class 1
Piston Tube	General Electric	3213	N/A	N/A	1985	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6595. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 6595. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed visual examination on the existing Piston Tube assembly Serial No 8013. Visual examination results unacceptable (pitting).
 - 4) Installed replacement Piston Tube assembly Serial No 3213.
 - 5) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable. One (1) ring flange cap screw was later rejected due to stripped allen head.
 - 6) Performed VT-1 visual examination on one (1) replacement ring flange cap screw. VT-1 visual examination results acceptable.
 - 7) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 8) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 3213.
- 2) The existing Piston Tube assembly Serial No 8013 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 3) The replacement Piston Tube assembly Serial No 3213 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda.
- 4) The Control Rod Drive (CRD) assembly Serial No 6595 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 5) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 6595.

EMERGYNORTHWEST

Tests (Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other X M Test Pressure: Psig Temperature: ° F Component Design Pressure: Psig Temperature: ° F
Remar	*ks: See attached N-2 Code Data Report for the replacement Piston Tube assembly Serial No 3213.
<u></u>	CERTIFICATE OF COMPLIANCE
to the Type : Certif	ertify that the statements made in this Owner's Report are correct and this replacement conforms or rules of the ASME Code, Section XI. Code Symbol Stamp: Not Applicable icate Of Authorization No.: Not Applicable ation Date: Not Applicable
Prepa Date _	Kuldip Singh - Program Lead Engineer (PLE) National Signed By Signed By Kuldip Singh - Program Lead Engineer (PLE) National Signed By Kuldip Singh - Program Lead Engineer (PLE) National Signed By Kuldip Singh - Program Lead Engineer (PLE) National Signed By Kuldip Singh - Program Lead Engineer (PLE) National Signed By Kuldip Singh - Program Lead Engineer (PLE) National Signed By Kuldip Singh - Program Lead Engineer (PLE) National Signed By Kuldip Singh - Program Lead Engineer (PLE) National Signed By Kuldip Singh - Program Lead Engineer (PLE)
	CERTIFICATE OF INSERVICE INSPECTION
Vesse Johnst period Owne in acc By sig implie	undersigned, holding a valid commission issued by the National Board of Boiler and Pressure of Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of ton, Rhode Island have inspected the components described in this Owner's Report during the and state to the best of my knowledge and belief, the rhas performed examinations and taken corrective measures described in this Owner's Report cordance with the requirements of the ASME Code, Section XI. In this certificate neither the Inspector nor his employer makes any warranty, expressed or and, concerning the examinations and corrective measures described in this Owner's Report. The performance of the Inspector nor his employer shall be liable in any manner for any personal for property damage or a loss of any kind arising from or connected with this inspection.
Date _	Commissions THSGW/748G NI I Inspector's Signature National Board, State, and Endorsements

As required by the Provision of the ASME Code Rules, Section III, Div. 1

_	21 OE102010 DO NO 1020130 12
ı.	(a) Manufactured by General Electric Co., Castle Hayne Rd., Wilmington, N.C. (Name and address of NFT Certificate Holder)
	(b) Manufactured for WNP-2 Autasp State 5
2.	(Name and address of N Certificate Holder for completed nuclear component) Identification-Certificate Holder's Serial No. of Part 3213 Nat'l Bd. No. NAT'
	(a) Constructed According to Drawing No. 798D228G010 Drawing Prepared by D. L. Peterson
	(b) Description of Part Inspected Piston Tube Assembly
	(c) Applicable ASME Code: Section III, Edition 1971, Addenda date 5'73, Case NoClass 1
1	Remarks: Standard part for use with reactor.
	(Brief description of service for which component was designed) Hydrostatically tested at 1825 psi.
	injured and at 1959 pare
	* Number of Sheets - 2
(T)	We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code comms to the rules of construction of the ASME Code Section III. The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for parts. An NPT Certificate Holder for parts. An NPT Certificate for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not
inc	luded in the component Design Specification and Stress Report.)
D.	te 5/31/ 19 35 Signed GE-NEPD-WMD By Structumus (NFT Certificate Holder)
	rtificate of Authorization Expires June 16, 1987 Certificate of Authorization No. NPT N-1151
ŕ	CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)
	Design information on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.
	Scress analysis report on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF.
	Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488
	Stress analysis report certified by Vernon W. Pence Prof. Eng. Scate Calif. Reg. No. 14488
Ī	CERTIFICATE OF SHOP INSPECTION
	I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors
	and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this
	Partial Data Report on 19 25, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
1	Date N.C. 723,PA.WC1766, OHIO Commissions
L	/ Inspector's Signature National Board, State, Province and No.

Supplemental abouts in form of lists, aketches or drawings may be used provided (l) aize le \$%" x 11", (2) information in items 1-2 on this Data Resert to Included us each thert, and (3) each thert is numbered and number of shorts to recorded in Hern 2. "Remarks".

FORM N-2 (back)

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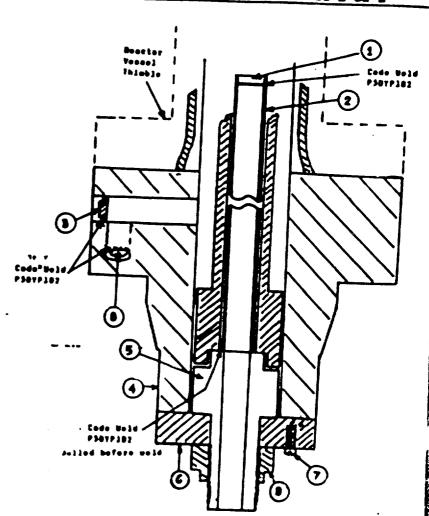
WOT NO. 0102013012

FORM H-2 MFT CERTIFICATE HOLDERS' DATA REPORT FOR TEAR PART AND APPURISHMENCES As required by the Provision of the AGE Code Rules, Section III, Div. I

1. Manufactured & Certified by: GE Company, 2117 Castle Hayne Rd., Wilmington, N.C. (Name and Address of MPT Certificate Holder) (b) Manufactured for: MEP-2, RICHIAND, WA. 99352 Wedard South (Name and Address of N Cartificate Holder for completed nuclear component 2. Identification-Certificate Holders's S/N of Part: 12/29/03 Nat'l Bd. N. N/A (a) Constructed According to Drawing No: 798D228G010 Dwg. Prepared by D. L. Peterson (b) Description of Part Inspected: Piston Tube Assembly (C) Applicable ASME Code: Section III, Edition 1971, Addenda Date 5'73, Case No. _____Class_ 3. REMARKS: Standard part for use with Reactor. Bydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)

Speet 2 of 2

- Cap 167A2343P1 SA182-P304 3/8 thick x 1 1/16 00
- 2. Indicator Tube 104B1336P3 SA312-1P316 3/4 sch 40-seamless pipe 0.113 wall thickness 1.065 max. dia.
- 3. Plug 159A1176P1 SA182-F304 1/4 thick x 0.812 00
- Flange 919D610P1 (719E474) SA182-P304 3.37 thick x 9 5/8 on
- 5. Bead 129B3539P3,P5 SA182-7304 7/8 thick x 2.875 Dia.
- 6. Ring Flange 114B5122P2 SA182-7304 1" thick x 5.0 OD x 1.75 ID
- 7. Cap Screw 117C4516P2 SA193-B6 6 ea. 1/2 dia. on 4 1/8 bolt circle
- 8. Plug 175A7961P1 EA182-F304 0.38 thick x 1.307 dia.





FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Date: 12/28/00

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

Unit: Not Applicable

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Note 1

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A8915	N/A	N/A	1991	•	Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No A8915. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2 below.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No A8915. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No A8915.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No A8915 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A8915.

EMERGYNORTHWEST

ests Conducte	d: Hydrostatic Test Pressure: Psig Component Design		I Operating Pressure Other X No Test Temperature: ° F Temperature: ° F
Remarks: None			
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	•	CERTIFICATE OF COMP	PLIANCE
to the rules of	t the statements mad the ASME Code, Sed mbol Stamp: Not Applic	tion XI.	are correct and this replacement conforms
	Authorization No.: No		
Expiration Dat	e: Not Applicable		
Prepared By _	Kuldip Singh - Pibgram Le	Signed I	By Kuldip Singh - Program Lead Engineer (PLE)
Date	12/29/03	Date	12/29/00
	CERT	IFICATE OF INSERVICE	INSPECTION
Vessel Inspect Johnston, Rhod period //// Owner has per in accordance By signing this implied, conce Furthermore, I	ned, holding a valid of tors and the State of the Island have inspect to Sample of the Island have inspected by the Island have inspected to the Island the Inspector to the Ins	commission issued by the Washington and employed ed the components descreased the components descreased and taken corrective metas of the ASME Code, Section is employed and corrective measured in the employer shall be composed to the employer and the employer to the employer and the employer an	e National Board of Boiler and Pressure I by Factory Mutual Insurance Company of ibed in this Owner's Report during the the best of my knowledge and belief, the easures described in this Owner's Report
Me	1 Ill	Commissio	ns 7486 W/7486 NI
In	spector's Signature		National Board, State, and Endorsements
Date 3/9	///		

Date: 12/28/00

Sheet: 1 Of 1
Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: See Note 1

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	6543	N/A	N/A	1974		Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 6543. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2 below.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 6543. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No 6543.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No 6543 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 6543.

EMERGYNORTHWEST

	ed: Hydrostatic Pneum Test Pressure: Psig Component Design Press	Te	perating Pressure Other _X_ N est Temperature: ° F emperature: ° F
emarks: None			
	CERTII	FICATE OF COMPLIA	ANCE
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	^r the ASME Code, Section XI Imbol Stamp: Not Applicable	!•	
	Authorization No.: Not Applicable	ble	
	te: Not Applicable	5.0	
•	1 0 25	.	1,00,00
Prepared By _	Kuldip Singh - Pregram Lead Engin	Signed By	Aulaup Sures
	Kuldip Singh - Pregram Lead Engin	neer (PLE)	Kuldip Singh - Program Lead Engineer (PLE)
)ate	12/29/00	Date	1429/00
	, ,		,
	CERTIFICAT	TE OF INSERVICE IN	SPECTION
the undersi	uned helding evelid commi	laniam increal for the Bi	intional Board of Ballon and Bussies
, uie undersiţ /essel Insped	inea, nolaing a valla commi ctors and the State of Washin	ssion issued by the N aton and employed b y	ational Board of Boiler and Pressure Factory Mutual Insurance Company of
			ed in this Owner's Report during the
			best of my knowledge and belief, the
Owner has pe	rformed examinations and t	aken corrective meas	ures described in this Owner's Report
	with the requirements of th		
			er makes any warranty, expressed or
			described in this Owner's Report.
			able in any manner for any personal
njury or prop	erty damage of a loss of any	y kina arising trom or	connected with this inspection.

2111.	eff >	Commissions	7486W/7486 NI
V	spector's Signature		National Board, State, and Endorsements
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Î Ir	· · · · · · · · · · · · · · · · · · ·		
oate <u>3/9</u>	101		

Date: 12/28/00

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

- 5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Note 1
 - (b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None
- 6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A8460	N/A	N/A	1988		Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No A8460. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2 below.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No A8460. Liquid penetrant (PT) examination results acceptable.
 - 2) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No A8460.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No A8460 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A8460.

EMERGYNORTHWEST

	ted: Hydrostatic Pneuma Test Pressure: Psig Component Design Pressur	7	Operating Pressure Other X No Test Temperature: ° F Temperature: ° F
emarks: None	•		
	CERTIFI	CATE OF COMPL	IANCE
		Owner's Report a	re correct and this replacement conforms
	of the ASME Code, Section XI. ymbol Stamp: Not Applicable		
	f Authorization No.: Not Applicable)	
	ate: Not Applicable		
	X 1 01 001	. .	Aldin Osl
repared By	Kuldin Singh - Program Lead Engine	<u>) </u>	Kuldip Singh - Program Lead Engineer (PLE)
)	12-12-91 ma	Date	129100
Date	12/100	Date	12/21/00
			
	CERTIFICATE	OF INSERVICE I	NSPECTION
			National Board of Boiler and Pressure
			by Factory Mutual Insurance Company of bed in this Owner's Report during the
period 12/	5/00 to 3/9/01	and state to th	ne best of my knowledge and belief, the
•			sures described in this Owner's Report
n accordanc	e with the requirements of the	•	
7			yer makes any warranty, expressed or essed or essed in this Owner's Report.
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mplied, cond Furthermore,	, neither the Inspector nor his c		liable in any manner for any personal or connected with this inspection.
mplied, cond Furthermore,	, neither the Inspector nor his c		
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mplied, conductive furthermore, njury or prop	neither the Inspector nor his operty damage or a loss of any l	kind arising from o	s 7486W/7486 NI



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Date: 12/28/00

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

Sheet: 1 Of 1

Unit: Not Applicable

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

- 3. (a) Work Performed By: Energy Northwest
 - (b) Repair Organization P.O. No. Job No. etc.: Energy Northwest
 - (c) Type Code Symbol Stamp: Not Applicable
 - (d) Certificate Of Authorization No.: Not Applicable
 - (e) Expiration Date: Not Applicable
- 4. Identification Of System: Control Rod Drive (CRD)
- 5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda, Code Case: Note 1
 - (b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A8740	N/A	N/A	1988	••••••	Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No A8740. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2 below.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No A8740. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No A8740.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No A8740 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A8740.



	d: Hydrostatic Pnei Test Pressure: Psig Component Design Pre	T	Operating Pressure Other X No est Temperature: ° F emperature: ° F
<i>lemarks:</i> None			
	CER	TIFICATE OF COMPL	IANCE
	the statements made in the ASME Code, Section		e correct and this replacement conforms
Type Code Syl	mbol Stamp: Not Applicable Authorization No.: Not Appli		
Sertificate Of A Expiration Date	• •	ICADIE	
Prepared By _	Kuldip Singh - Program Lead Er	Signed By	Kuldip Singh - Program Lead Engineer (PLE)
Date	12/29/00	Date	1429/00
	CERTIFIC	ATE OF INSERVICE II	NSPECTION
Vessel Inspect Johnston, Rhode period <u>/2/</u> ∫/	tors and the State of Wash e Island have inspected the 100 to 3/4/0/	hington and employed b he components describ and state to the	National Board of Boiler and Pressure y Factory Mutual Insurance Company of ed in this Owner's Report during the e best of my knowledge and belief, the
Owner has per in accordance	formed examinations an with the requirements of	d taken corrective mea f the ASME Code, Secti	sures described in this Owner's Report on XI.
			er makes any warranty, expressed or selections selections.
Furthermor <mark>e, r</mark>	neither the Inspector nor	his employer shall be l	iable in any manner for any personal r connected with this inspection.
21/1	alto	Commissions	7486 W/7486 NI
In:	spector's Signature	COMMISSIONS	National Board, State, and Endorsements
Date <u>3/1/</u>	101		

Date: 12/28/00

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	7327	N/A	N/A	1975	*********	Yes, Code Class 1
CT&F	General Electric	7327	N/A	N/A	1975	Replaced	Yes, Code Class 1
CT&F	General Electric	A9539	N/A	N/A	1994	Replacement	Yes, Code Class 1
Piston Tube	General Electric	5933	N/A	N/A	1975	Replaced	Yes, Code Class 1
Piston Tube	General Electric	3249	N/A	N/A	1985	Replacement	Yes, Code Class 1
		-					

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7327. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 7327. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed visual examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 7327. Visual examination results unacceptable (out of round collet housing surfaces).
 - 4) Installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9539.
 - 5) Performed visual examination on the existing Piston Tube assembly Serial No 5933. Visual examination results unacceptable (pitting).
 - 6) Installed replacement Piston Tube assembly Serial No 3249.
 - 7) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 8) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 9) Reassembled parts and materials for Control Rod Drive (CRD).

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9539.
- 2) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 3249.
- 3) The existing Cylinder Tube And Flange (CT&F) assembly Serial No 7327 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 4) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9539 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 5) The existing Piston Tube assembly Serial No 5933 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 6) The replacement Piston Tube assembly Serial No 3249 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda
- 7) The entire Control Rod Drive (CRD) assembly is now identified by the replacement Cylinder Tube And Flange (CT&F) Serial No A9539.

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	Hydrostatic Test Pressure: Psig	Pneumatic		perating Pressure st Temperature: ° F	Other X N
	Component Desig			nperature: ° F	
Remarks: See attac	ched N-2 Code Data Re	ports for the followin	ıg replacement par	ts:	
nder Tube And Flang on Tube assembly Se	e (CT&F) assembly Ser rial No 3249.	ial No A9325.			
		CERTIFICATE	OF COMPLIA	NCE	
to the rules of th Type Code Sym	le ASME Code, Se bol Stamp: Not Appli	ection XI. icable	r's Report are	<i>correct and this</i> replac	cement <i>conforms</i>
Certificate Of Al Expiration Date:	uthorization No.: No Not Applicable	ot Applicable			
Prepared By	Liu disp Singh - Program L	ead Engineer (PLE)	Signed By _	Kuldip Singh - Program L	ead Engineer (PLE)
Date	12/29/00		Date	12/29	100
	ed, holding a valid		sued by the Na	ational Board of Boild	
Johnston, Rhode period //// Owner has perfoin accordance w By signing this implied, concern	Island have inspected to see to see to see the see to see the	ted the compon /// ar ns and taken co nts of the ASME the Inspector no ions and correct	nents describe and state to the arrective meas E Code, Section or his employe tive measures	Factory Mutual Insurar d in this Owner's Rep best of my knowledgures described in this n XI. er makes any warrant described in this Own while in any manner for	port during the ge and belief, the s Owner's Report by, expressed or oner's Report.
injury or proper	ty damage or a los	ss of any kind ai	rising from or	connected with this i	inspection.
	ector's Signature			National Board, State, a	ana Endorsements
Insp Date <u>3 / 9 /</u>	<u></u>			, , , , , , , , , , , , , , , , , , , ,	

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. J Manufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing (GENF'& CM) 2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder) (b) Manufactured for : WNP 2 Richland, Washington 99352 (Name and Address of N Certificate Holder for completed nuclear component) 2. Identification - Certificate Holder's S/N of Part : _A9539 Nat'l Bd. No. N/A (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson (b) Description of Part Inspected: Cylinder Tube & Flange (c) Applicable ASME Code: Section III. Edition 1974. Addenda Date W'75. Case No. 1361-2 Class 1 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed) Sheet 1 of 2 We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Signed GE - NEBG - NF & CM - QA Date: 04/08/94 (NPT Certificate Holder) Representive) NPT N - 1151 Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: Certification of Design for Appurtenance Design information on file at _____GE Company, San Jose, California Stress analysis report on file at <u>GE Company</u>, San Jose, California DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>

Certification of Shop Inspection

Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied,

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

Date | General Personal Province And No. | NC 1231, Ohio, WC 3686 PA | Inspector's Signature | National Board, State, Province And No.

^{*}Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Iter	ms 4-8 Incl. to be completed for	or single wall ves	ssels, jackets	vessels, or s	hells of heat e	xchangers.	
4.	Shell: Material T.S. (Kind & Spec. No.) (Mind		Cor in. All	rosion owance in	. Dia ft.	in. Length _	ft in.
5.	Seams: Long	H.T. 1		R.T		Efficiency	
	Girth	H.T. ¹		R.T		_ No. of Courses	
6.	Heads: (a) Material		T.S	(b) Mat	erial	T.S	-
(a)	Bottom, Ends) Thickness	Crown Knuckle Radius Radius		Concial Apex Angle	Hemispherical Radius	Flat Side to Diameter (conv	Press. or conc.)
(b)	If removable, bolts used			Other fasteni	ng		
7.	Jacket Closure:	(Material, Spec. No., T.S.	Size Number)		(De	scribe or attach sketch)	
		(Describe as ogee an	nd weld, bar, etc. If ba	u give dimensions, if t	polis, describe or sketch Drop We Charpy		ft-lb
8.	Design pressure1	250 ps	i at	575	. F at temp	of	° F
Ite	ms 9 and 10 to be completed fo	r tube sections					
9.	Tube Sheets: Stationary. Ma	terial	Dia.		Thickness	in. Attachmen	<u> </u>
	Floating. Ma	(Kind & Spe terial	ec.No.) Dia.	(Subject to pressure	Thickness	in. Attachmen	(Weided, Bolted)
10.	Tubes: Material	0.D	in. Thick	ness	inches or gage. Nu	mber T	/pe(Str. or U)
Ite	ms 11 - 14 incl. to be complet	ed for inner chamb	bers of jacket	ed vessels, or	channels of he	at exchangers.	
	Shell: Material T.S. (Kind & Spec. No.) (Mi	in, of Range Specified)	in. All			in. Length _ Efficiency	
	Girth	1				No. of Courses	
13.	Heads: (a) Material					T.S	
	Location Thickness Top,bottom,ends	Crown Knuckle Radius Radius			Hemispherical Radius		
(0)	Channel If removable, bolts used (a)_	(p)	(c)	0ther	fastening	(Describe or attach	
	_				Drop We Charpy		ft-lb
14.	Design pressure		psi at		Fat temp	of	_
lie	ems below to be completed for a	ill vessels where	applicable.				
15.	Safety Valve Outlets: Number		Size _		Locatio	n	
16.	Nozzies: Purpose (Inlet, Outlet, Drain) Numb	per Dia. or Size		Material	Thickness	Reinforcement Material	How Attached
17.	Openings: Handholes, No		Size Size Size		ocation		
18.	Supports: Skirt (Yes or No)	Lugs (Number)	Legs(Ot Number)	(Describe)	Attached	(Where & How)

^{1 -} If Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

As required by the Provision of the ASME Code Rules, Section III, Diy. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM

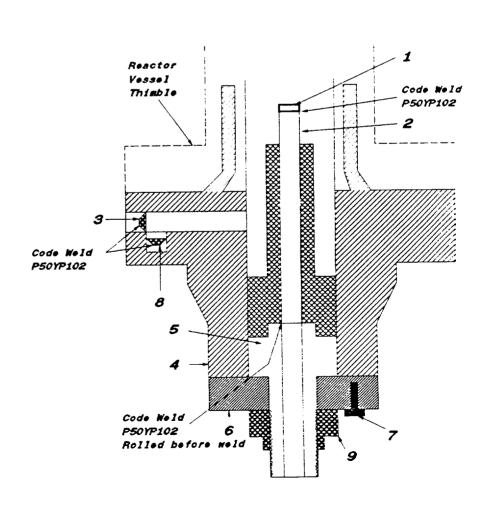
2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)

(b)	Manufactured for	:	WNP 2				Washington 9935				 	_
ι-,			(Name	and	Address of	N	Certificate Holder	for	completed	nuclear	component	

- 2. Identification Certificate Holder's S/N of Part : A9539 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson

 - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)

- 1. Cap 166B9274P001 SA182 - TP316 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113' wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Head 129B3539P005 SA 182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



FURM N=2 NPT CERTIFICATE HOLDERS* DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. 1 General Electric Co., Castle Hayne Rd., Wilmington, N.C. L (a) Manufactured by__ (Name and address of NPT Certificate Holder) -STOCK-(b) Manufactured for_ (Name and address of N Certificate Holder for completed nuclear component) 3249 M/A 2. Identification-Certificate Holder's Serial No. of Part _Nat'l Bd. No. ___ (a) Constructed According to Drawing No. 798D228G010 Drawing Prepared by D. L. Peterson Piston Tube Assembly (b) Description of Part Inspected ____ (c) Applicable ASME Code: Section III, Edition 1971, Addenda date S'73, Case No. ______Class 1 Standard part for use with reactor. (Brief description of service for which component was designed) Hydrostatically tested at 1825 psi. * Number of Sheets - 2 We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III. (The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certifiicate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.) 5/31/ 19 85 Signed GE-NEPD-WMD (NPT Certificate Holder) ertificate of Authorization Expires June 16, 1987 Certificate of Authorization No. NPT N-1151 CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable) Design information on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF. Scress analysis report on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF. Prof. Eng. State Calif. Reg. No. 14488 Vernon W. Pence Design specifications certified by____ Prof. Eng. Scate Calif. Reg. No. 14488 Vermon W. Pence Stress analysis report certified by_ CERTIFICATE OF SHOP INSPECTION I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor State of North Carolina have inspected the part of a pressure vessel described in this 6/6 1925, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection. N.C. 723, PA.WC1766, OHIO Commissions -National Board, State, Province and No.

[«]Supplemental sheets in form of lists, aketches or drawings may be used provided (1) size is 897° x 11°°, (2) information in items 1-2 on this Data Report is included as each sheet, and (3) each sheet is numbered and number of there is recorded in Hem 2. "Remarks".

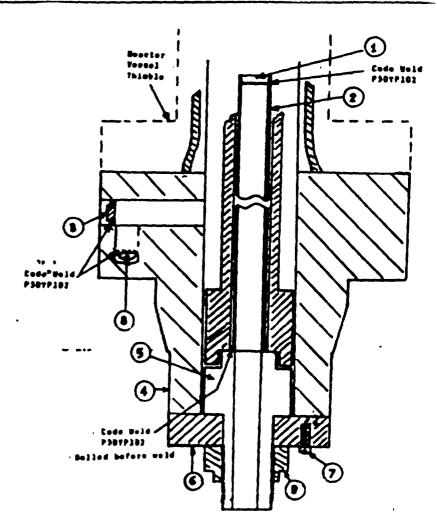
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10.	Tubes	Material	,	_ O.D	ia. Th	ickness	or gage	. Number	Type	4000 00 00
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11.	Shell:	Material	T.S	 T	ominal hickness _	Corro Liov .ai	sion raceis	Diafe	ia. Length	fti
		(Kind b	Spec. No.) (Min	. of Range 5	pecified)			,,,,,		
12.	Seams	Loag	н	.T.1		_ R.T		Efficiency	*	_7.
				•					•	
								No. of Courses .		
13.	Mesas	(a) Material .							_:	•
		Location	Thickness.		Knuckie Redius	Elliptical Ratio	Conical Apez Angle	Hemispherical Radius	Plat Dismeter	Side to Press (Cenv. or Cen
										
	(b) Che	unaci vable, bolca :	used (a)		<i>b</i>)	(c)	0	ther fastening	•	
					~/		<u> </u>	7	Describe er e	ttach sketch)
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14.	Design	pressure ³		~~~~	psi a	N		°F at tem	o. of	
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If Postweld Hest-Treated.

List other internal or emernal pressure with coincider.

As required by the Provision of the ASME Code Rules, Section III, Div. I
1. Manufectured & Certified by: GE Company, 2117 Castle Hayne Rd., Wilmington, H.C. 28401 (Name and Address of NPT Certificate Holder) 1829(6)
(b) Manufactured for: MSP-2, RICHIAND, Wa. 99352 (Name and Address of N Certificate Holder for completed nuclear components
2. Identification-Certificate Holders's S/N of Part: 3249 Nat'l Bd. N. N/A
(a) Constructed According to Drawing No: 798D228G010 Dwg. Prepared by D. I., Peterson
(b) Description of Part Inspected: Piston Tube Assembly
(C) Applicable ASME Code: Section III, Edition 1971, Addenda Date 5'73, Case No. Class
REMARKS: Standard part for use with Reactor. Bydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
Sheet 2 of 2

- 1. Cap 167A2343P1 SA182-F304 3/8 thick X 1 1/16 CD
- 2. Indicator Tube 104B1336P3
 SA312-YP316
 3/4 sch 40-seamless pipe
 0.113 wall thickness
 1.065 max. dia.
- 3. Plug 159All76Pl SA182-F304 1/4 thick x 0.812 00
- 4. Flange 919D610P1 (719E474) SA182-F304 3.37 thick x 9 5/8 00
- 6. Ring Flange 114B5122P2 SA182-F304 1" thick x 5.0 CD x 1.75 ID
- 7. Cap Screw 117C4516P2 SA193-B6 6 ea. 1/2 dia. on 4 1/8 bolt circle
- 8. Plug 175A7961P1 SA182-F304 0.38 thick x 1.307 dia.



Date: 12/28/00

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	4970	N/A	N/A	1974	*	Yes, Code Class 1
CT&F	General Electric	4970	N/A	N/A	1974	Replaced	Yes, Code Class 1
CT&F	General Electric	A9582	N/A	N/A	1994	Replacement	Yes, Code Class 1
Piston Tube	General Electric	4908	N/A	N/A	1974	Replaced	Yes, Code Class 1
Piston Tube	General Electric	3259	N/A	N/A	1985	Replacement	Yes, Code Class 1
						,	

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 4970. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 4970. Liquid penetrant (PT) examination results unacceptable.
 - 3) installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9582.
 - 4) Performed visual examination on the existing Piston Tube assembly Serial No 4908. Visual examination results unacceptable (pitting).
 - 5) Installed replacement Piston Tube assembly Serial No 3259.
 - 6) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 7) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 8) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9582.
- 2) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 3259.
- 3) The existing Cylinder Tube And Flange (CT&F) assembly Serial No 4970 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 4) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9582 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 5) The existing Piston Tube assembly Serial No 4908 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 6) The replacement Piston Tube assembly Serial No 3259 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda
- 7) The entire Control Rod Drive (CRD) assembly is now identified by the replacement Cylinder Tube And Flange (CT&F) Serial No A9582.

WOT No 01020130 18

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87	rests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other X Nominal Operating Pressure: Other Test Temperature: ° F Component Design Pressure: Psig Temperature: ° F
9. 1	Remarks: See attached N-2 Code Data Reports for the following replacement parts:
Cylii Pist	nder Tube And Flange (CT&F) assembly Serial No A9382. on Tube assembly Serial No 3259.
ſ	CERTIFICATE OF COMPLIANCE
	We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI. Type Code Symbol Stamp: Not Applicable Certificate Of Authorization No.: Not Applicable Expiration Date: Not Applicable Prepared By Signed By Kuldip Singh - Program Lead Engineer (PLE) Date Date Date
	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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period
	Inspector's Signature Commissions // Sull / G MIT National Board, State, and Endorsements Date 3/9/0/
•	

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

	Supl
1.	Manufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
	2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NFT Certificate Holder)
	(b) Manufactured for : WNP 2 Richland, Washington 99352
	(Name and Address of N Certificate Holder for completed nuclear component)
2.	Identification - Certificate Holder's S/N of Part : <u>A9582</u> Nat'l Bd. No. <u>N/A</u>
	(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
	(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
	(c) Applicable ASME Code: Section III , Edition <u>1974</u> , Addenda Date <u>W'75</u> . Case No. <u>1361-2</u> Class <u>1</u>
3.	REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
	Sheet 1 of 2
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances /is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).
,	Date: 03/15/94 Signed GE - NEBG - NF & CM - QA By SC On Representive)
	Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151
	Certification of Design for Appurtenance
	Design information on file at GE Company, San Jose, California
	Stress analysis report on file atGE Company, San Jose, California
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPI Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

3/15 .1994 Decome P Every NC 1231, Ohio, WC 3686 PA

Date National Board, State, Province And No.

A HAME A NOT THE YEAR OF

^{*}Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Ite	ms 4-8 Incl. to be completed for sin	gle wall vessels, jackets	s vessels, or shells of heat e	exchangers.
4.	Shell: Material T.S. (Kind & Spec. No.) (Min. of Range	_ Thickness in. All	rosion lowance in. Dia ft.	in. Length ft in.
5.	Seams: Long	H.T	R.T	Efficiency%
	Girth	H.T	R.T	No. of Courses
6.	Heads: (a) Material	T.S	(b) Material	T.S
(a)	Location (Top Crown Bottom, Ends) Thickness Radius	Knuckle Elliptical	Concial Hemispherical Apex Angle Radius	
(b)	If removable, bolts used		Other fastening	
7.	Jacket Closure:	al, Spec. No., T.S. Size Number }	(D	escribe or attach sketch)
	•		Charpy	Impact ft-1b
8.	Design pressure 1250	psi at	575 F at temp	o of F
Ite	ems 9 and 10 to be completed for tube	sections		
9.	Tube Sheets: Stationary. Material	(Kind & Spec. No.)	. Thickness	in. Attachment (Welded, Bohed) in. Attachment
10.	Jubes: Material	O.D in. Thick	cness inches or gage. No	Type(Str. or U)
Ite	ems 11 - 14 incl. to be completed for	inner chambers of jacket	ted vessels, or channels of he	eat exchangers.
, 11.	Shell: MaterialT.S(Kind & Spec. No.) (Min. of Ran	_ Thickness in. Al' ge Specified)		
12.	Seams: Long	H.T.	R.T	
	Girth	н.т.	R.T	No. of Courses
13.	Heads: (a) Material	T.S	(b) Material	T.S
	Crown Location Thickness Radius Top,bottom,ends Channel		Concial Hemispherical Apex Angle Radius	Flat Side to Press. Diameter (conv. or conc.)
(5)	If removable, bolts used (a)	(b)(c)	Other fastening	(Describe or attach sketch)
			. Drop We Charpy	
14.	Design pressure	psi at	Fat temp	o ofF
Ite	ems below to be completed for all ves	sels where applicable.		
<u> </u>	Safety Valve Outlets: Number	Size	Locatio	on
	Nozzles: Purpose (Inlet, Outlet, Drain) Number	Dia. or Size Type	Material Thickness	Reinforcement Material How Attached
17.	Inspection Manholes, No. Openings: Handholes, No. Threaded, No.	Size Size Size	Location	
18.	Supports: Skirt Lugs (Yes or No.)	Legs		Attached(Where & How)

^{1 -} If Postweld real-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401

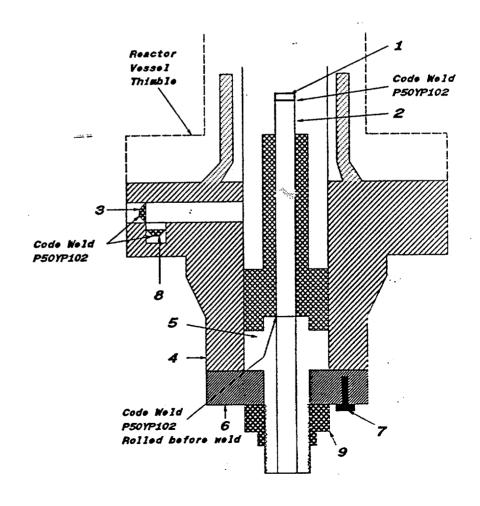
(Name and Address of NPT Certificate Holder)

(b)	Manufactured for :	WNP 2	Richland, Washington 99352
,		(Name a	and Address of N Certificate Holder for completed nuclear component

- 2. Identification Certificate Holder's S/N of Part : A9582 Nat'l Bd. No. N/A
 - (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
 - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

 (Brief description of service for which component was designed)

- 1. Cap 166B9274P001 SA182 - TP316 3/8° thick x 1 1/16° OD
- Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1,065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) \$A182 - F304 3.37* thick x 9 5/8* OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75' ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1,30° thick x 2.62° dia.



As required by the Provision of the ASME Code Rules, Section III, Div. 1 General Electric Co., Castle Hayne Rd., Wilmington, N.C. l. (a) Manufactured by_ (Name and address of NPT Certificate Holder) -STOCK WNP-2 (b) Manufactured for (Name and address of N Certificate Holder for completed nuclear component) 3259 2. Identification-Certificate Holder's Serial No. of Part __ __Nar'l Bd. No. __ (a) Constructed According to Drawing No. 798D228G010 _Drawing Prepared by __ D. L. Peterson Piston Tube Assembly (b) Description of Part Inspected ___ (c) Applicable ASME Code: Section III, Edition 1971 . Addenda date S'73 . Case No. Standard part for use with reactor. (Brief description of service for which component was designed) Hydrostatically tested at 1825 psi. * Number of Sheets - 2 We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III. (The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certifiicate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.) _ 19_ 3F Signed _ GE-NEPD-WMD (NPT Certificate Holder) entificate of Authorization Expires June 16, 1987 Certificate of Authorization No. . CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable) Design information on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF. Scress analysis report on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF. Vermon W. Pence Prof. Eng. State Calif. Reg. No. 14488 Design specifications certified by_ Vernon W. Pence Stress analysis report certified by_ CERTIFICATE OF SHOP INSPECTION I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor State of North Carolina have inspected the part of a pressure vessel described in this 1902, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Commissions _

N.C. 723.PA.WC1766, OHIO

National Board, State, Province and No.

Inspector's Signature

Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is \$9/" x 11", (2) information is items 1-2 on this

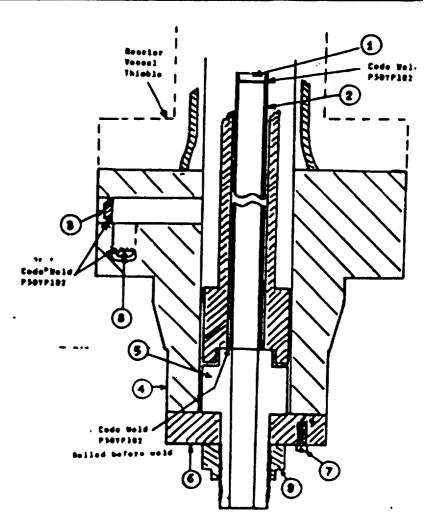
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	(b)					•		- And Angle				-
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As required by the Provision of the ASME Code Rules, Section III, Div. I

1.	. Manufactured & Certified by: GE Company, 2117 Castle Hayne Rd., Wilmington, M.C. 284	601
	(b) Manufactured for: MNP-2, RICHIAND, WA. 99352	Zuj.
	(Name and Address of N Cartificate Holder for completed nuclear comp	1900
2.	. Identification—Certificate Holders's S/N of Part: Nat'l Ed. N. N. N.	1291 d
	(a) Constructed According to Drawing No: 798D228G010 Dwg. Prepared by D. L. Pet	term
	(b) Description of Part Inspected: Piston Tube Assembly	
	(C) Applicable ASME Code: Section III, Edition 1971, Addenda Date 5'73, Case No. (C)	Clase
l_	REMORKS: Standard part for use with Beactor. Hummetatically tested at 1825 nei wit	n

(Brief description of service for which component was designed)

- 1. Cap 167A2343P1 SA182-F304 3/8 thick X 1 1/16 00
- 2. Indicator Tube 104B1336P3 SA312-TP316 3/4 sch 40-seemless pipe 0.113 wall thickness 1.065 max. dia.
- 3. Plug 159All%Pl SA182-F304 1/4 thick x 0.812 00
- 4. Flange 919D610P1 (719E474) SA182-P304 3.37 thick x 9 5/8 CD
- 5. :Head 129B3539P3,P5 SA182-F304 7/8 thick x 2.875 Dia.
- 6. Ring Flange 114B5122P2 SA182-F304 1" thick x 5.0 CD x 1.75 ID
- 7. Cap Screw 117C4516P2 SA193-B6 6 en. 1/2 dia. on 4 1/8 bolt circle
- Plug 175A7961P1
 SA182-F304
 0.38 thick x 1.307 dia.



Date: 12/28/00

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with Winter 1975 Addenda, Code Case: Note 1

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A8745	N/A	N/A	1988		Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No A8745. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2 below.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No A8745. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No A8745.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No A8745 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A8745.

WOT No 01020130 19

EMERGYNORTHWEST

CERTIFICATE OF COMPLIANCE Ve certify that the statements made in this Owner's Report are correct and this replacement conforms of the rules of the ASME Code, Section XI. Type Code Symbol Stamp: Not Applicable Statificate Of Authorization No.: Not Applicable Statificate Of Authorization No.: Not Applicable Statificate Of Authorization No.: Not Applicable Statificate Of Statificable Statificate Of Statificat	ests Conaucte	ed: Hydrostatic Pneui Test Pressure: Psig Component Design Pres	matic Nominal Operating Pressure Other _X No Test Temperature: ° F sure: Psig Temperature: ° F
CERTIFICATE OF INSERVICE INSPECTION The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure dessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of accordance with the requirements of the ASME Code, Section XI. Inspector's Signature Commissions	lemarks: None		
CERTIFICATE OF INSERVICE INSPECTION The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure dessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of accordance with the requirements of the ASME Code, Section XI. Inspector's Signature Commissions			
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CERTIFICATE OF INSERVICE INSPECTION the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure lessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of conston, Rhode Island have inspected the components described in this Owner's Report during the eriod and state to the best of my knowledge and belief, the lack 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. Surpling of polyprometry damage or a loss of any kind arising from or connected with this inspection. Commissions The Code, Section XI. National Board, State, and Endorsements		CERT	IFICATE OF COMPLIANCE
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Ruldip Singh - Program Lead Engineer (PLE) Ruldip Singh - Program			
Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE) CERTIFICATE OF INSERVICE INSPECTION The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure (essel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of conniston, Rhode Island have inspected the components described in this Owner's Report during the earlied of the state of the ASME Code, Section XI. The program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE) Kuld			able
Kuldip Singh - Program Lead Engineer (PLE) CERTIFICATE OF INSERVICE INSPECTION The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure dessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of Donston, Rhode Island have inspected the components described in this Owner's Report during the end of the seriod of the state of Washington and state to the best of my knowledge and belief, the wave has performed examinations and taken corrective measures described in this Owner's Report as accordance with the requirements of the ASME Code, Section XI. The 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, but thermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions THELL THE NIT National Board, State, and Endorsements	xpiration Dat	Re: Not Applicable	- A -
Kuldip Singh - Program Lead Engineer (PLE) CERTIFICATE OF INSERVICE INSPECTION The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure lessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of conston, Rhode Island have inspected the components described in this Owner's Report during the eriod and state to the best of my knowledge and belief, the converted examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI. It signing this certificate neither the Inspector nor his employer makes any warranty, expressed or included concerning the examinations and corrective measures described in this Owner's Report, but therefore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions The Commissions Automatical Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE) Ruldip Singh - Program Lead Engineer (PLE) Company to the control of the Company to the control of the Company the Company of th	repared Bv	Autain &	Signed By Woulder Sure !
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the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure fessel Inspectors and the State of Washington and employed by Factory Mutual Insurance Company of conniston, Rhode Island have inspected the components described in this Owner's Report during the eriod		······································	
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Inspector's Signature In 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. For any personal injury or property damage or a loss of any kind arising from or connected with this inspection. Commissions THELE THE NITE NOTE. National Board, State, and Endorsements	/essel Inspec ohnston, Rhod period <u>/ // /</u> Owner has pe	tors and the State of Washir e Island have inspected the ////toto/// rformed examinations and	ngton and employed by Factory Mutual Insurance Company of components described in this Owner's Report during the and state to the best of my knowledge and belief, the taken corrective measures described in this Owner's Report
Inspector's Signature National Board, State, and Endorsements	By signing this mplied, conce furthermore, i	s certificate neither the Insp erning the examinations an neither the Inspector nor hi	pector nor his employer makes any warranty, expressed or d corrective measures described in this Owner's Report. is employer shall be liable in any manner for any personal
Inspector's Signature National Board, State, and Endorsements	It.c	The	Commissions 7486W/7486 NI
ate 3/9/01	In	spector's Signature	
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Date: 12/28/00

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1, 1971 Edition with no Addenda, Code Case: See Note 1

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	7299	N/A	N/A	1975	·	Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7299. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2 below.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 7299. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No 7299.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No 7299 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 7299.

WOT No 01020130 20

EMERGYNORTHWEST

ests Conducted	d: Hydrostatic Pneu Test Pressure: Psig Component Design Pres	Te	perating Pressure Other _X_ No est Temperature: ° F emperature: ° F
lemarks: None			
	CER1	TIFICATE OF COMPLIA	ANCE
Ne certify that	the statements made in t	his Owner's Report are	correct and this replacement conforms
o the rules of	the ASME Code, Section 2		
	nbol Stamp: Not Applicable A uthorization No.: Not Applic	b.l-	
Sertificate Of A Expiration Date		capie	
		9,	1.000
Prepared By _	Kuldip Singh - Program Lead Eng	Signed By	Kuldip Singh - Program Lead Engineer (PLE)
	Kuldip Singh - Program Lead Eng	• , ,	
Date	142900	Date	17/29/00
	CERTIFICA	ATE OF INSERVICE IN	ISPECTION
	<u></u>		
			lational Board of Boiler and Pressure
<i>vessei inspect</i> Johnston, Bhodi	<i>ors and the State of</i> Wash - Island <i>have inspected th</i>	iington ana employea b j e components describe	y Factory Mutual Insurance Company of ed in this Owner's Report during the
period <u>/2/3</u>	100 to 5/9/01	and state to the	e best of my knowledge and belief, the
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	with the requirements of		
			rer makes any warranty, expressed or s s described in this Owner's Report.
Furthermore, i	neither the Inspector nor l	his employer shall be li	able in any manner for any personal
injury or prope	erty damage or a loss of a	ny kind arising from or	connected with this inspection.
	MA	Commissions	7486 W/7486 NI
·/- 49 6	spector's Signature		National Board, State, and Endorsements
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>//	100		



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Date: 12/28/00

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

Sheet: 1 Of 1

2. Plant: Columbia Generating Station

Unit: Not Applicable

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No. Job No. etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

- 5. (a) Applicable Construction Code: ASME Section III, Code Class 1 See Notes For Code Edition, Addenda And Code Cases
 - (b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	7084	N/A	N/A	1975		Yes, Code Class 1
Piston Tube	General Electric	3902	N/A	N/A	1975	Replaced	Yes, Code Class 1
Piston Tube	General Electric	3238	N/A	N/A	1985	Replacement	Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7084. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 7084. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed visual examination on the existing Piston Tube assembly Serial No 3902. Visual examination results unacceptable (pitting).
 - 4) Installed replacement Piston Tube assembly Serial No 3238.
 - 5) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 6) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 7) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 3238.
- 2) The existing Piston Tube assembly Serial No 3902 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 3) The replacement Piston Tube assembly Serial No 3238 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with Summer 1973 Addenda.
- 4) The Control Rod Drive (CRD) assembly Serial No 7084 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 5) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No 7084.

WOT No 01020130 21



Tests Conducted: Hydrostatic Test Pressure: P Component Des	Pneumatic Nominal Operating Pressure sig Test Temperature: ° ign Pressure: Psig Temperature: ° F	
). Remarks: See attached N-2 Code Data	Report for the replacement Piston Tube assembly Serial No 323	.
	CERTIFICATE OF COMPLIANCE	
We certify that the statements m to the rules of the ASME Code, S Type Code Symbol Stamp: Not Ap Certificate Of Authorization No.: Expiration Date: Not Applicable Prepared By Kuldip Singh - Program Date 1 1 5 0 6	Not Applicable Signed By Ludup	Explacement conforms Supplied to the second
CEF	RTIFICATE OF INSERVICE INSPECTION	
Johnston, Rhode Island have insperied to Johnston, Rhode Island have insperied to Johnston, Rhode Island have insperied to Johnston, and the semination accordance with the requirement of the seminal seminal furthermore, neither the Inspection.	of commission issued by the National Board of Book Washington and employed by Factory Mutual Insurated the components described in this Owner's Factor and state to the best of my knowled the same and taken corrective measures described in the last of the ASME Code, Section XI. The Inspector nor his employer makes any warrations and corrective measures described in this for nor his employer shall be liable in any manner was of any kind arising from or connected with this	rance Company of Report during the edge and belief, the this Owner's Report anty, expressed or Owner's Report.
Inspector's Signature Date 3/9/0/	Commissions 7486.00/7. National Board, State	HSC NIT e, and Endorsements

DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. 1 WOT NO. 01020130 21 General Electric Co., Castle Hayne Rd., Wilmington, N.C. 1. (s) Manufactured by_ (Name and address of NPT Certificate Holder) STOCK WNP-2 (b) Manufactured for (Name and address of N Certificate Holder for completed nuclear component) 3233 N/A 2. Identification-Certificate Holder's Serial No. of Part _____ _Nat'l Bd. No. __ (a) Constructed According to Drawing No. 798D228G010 Drawing Prepared by D. L. Peterson Piston Tube Assembly (b) Description of Part Inspected___ (c) Applicable ASME Code: Section III, Edition 1971 Standard part for use with reactor. (Brief description of service for which component was designed) Rydrostatically tested at 1825 psi. * Number of Sheets - 2 We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III. (The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certifiicate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.) Signed ___GE-NEPD-WMD (NPT Certificate Holder) tificate of Authorization Expires June 16, 1987 Certificate of Authorization No. NPT N-1151 CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable) Design information on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF. Scress analysis report on file at GENERAL ELECTRIC CO., SAN JOSE, CALIF. Prof. Eng. State Calif. Reg. No. 14488 Vernon W. Pence Design specifications certified by_ Prof. Eng. State Calif. Reg. No. 14488 Vernon W. Pence Stress analysis report certified by_ CERTIFICATE OF SHOP INSPECTION I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Province of North Carolina and employed by Department of Labor 19 . and state that to the best of my knowledge Partial Data Report on and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Commissions.

N.C. 723,PA.WC1766, OHIO

National Board, State, Province and No.

Date

Inspector's Signature

^{*}Supplemental sheets in form of lists, aketches ar drawings may be used provided (1) size is 8%" x 11", (2) information in items 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Hem 3. "Remarks".

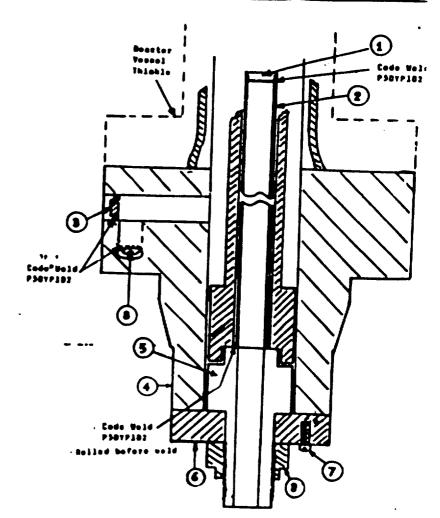
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m	Seams: Heads ((a) Top, (b) Chan If remove Design p below to Safety V: Nozzles:	Girth	Thickness is	Crown Radius (b)	T.S Knuckie Radius psi at	R.T R.T Elliptical Ratio	sion ancein. (b) Material Conical Apex AngleOti	Diaft Efficiency No. of Course Hemispherics Radius ner fastening. Drop Char of at te	T.S. Tight Diameter (Describe or a Weight	Side to F (Conv. or
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	Seams: Heads ((a) Top, (b) Chan If remove below to Safety V. Nozzles: Purpos	Girth	Thickness is ised (a) ited for all ves	Crown Radius (b)	T.S	R.T R.T Elliptical Ratio	sion ancein. (b) Material Conical Apex Angle Oti	Diaft Efficiency No. of Course Hemispherics Radius Drop Char OF at te	T.S. Tiet Diameter (Describe or a Weight py Impact mp. of	Side to P (Conv. or
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2.	Seams: Heads ((a) Top, (b) Chan If remove below to Safety V. Nozzles: Purpos Outlet	Girth	Thickness is ised (a) ited for all ves : Number is, No is, No	Crown Radius (b)	T.S Knuckie Radius psi at applicable Size Type	R.T	cation	Diaft Efficiency No. of Course Hemispherics Radius ner fastening. Drop Char oF at te	T.S. Tist Diameter (Describe or a Weight py Impact mp. of	Side to P (Conv. or ttach sketch)
- I	Seams: Heads ((a) Top, (b) Chan If remove Below to the second of the s	Girth	Thickness is ised (a) ited for all ves it Number	Crown Radius (b) Sels where Siz Siz Siz	T.S Knuckie Radius psi at applicable Size Type	R.T	cation	Diaft Efficiency No. of Course Hemispherics Radius ner fastening. Drop Char of at te	T.S. Tis. Plat Diameter (Describe or a Weight py Impact mp. of cinforcement Material	Side to P (Conv. or ttach sketch)

WI NO. UNCLUSO 21

FORM N-2 MPT CERTIFICATE BOLLERS' DATA REFORT FOR 18 LEAR PART AND APPURISONNES* As required by the Provision of the ASSE Code Rules, Section III, Div. I

- 1. Manufactured & Certified by: GE Company, 2117 Castle Hayne Rd., Wilmington, N.C. 28401 (Home and Address of MPT Certificate Holder) Such
 - (b) Manufactured for: MEP-2, (Name and Address of N Certificate Holder for completed nuclear compone:
- 3238 12/29/00 2. Identification-Cartificate Holders's S/N of Part: Nat'l Bd. N. NΆ
 - (a) Constructed According to Drawing No: 798D228G010 Dwg. Prepared by D. L. Petersc
 - (b) Description of Part Inspected: Piston Tube Assembly
 - (C) Applicable ASME Code: Section III, Edition 1971, Addenda Date 5'73, Case No. Class
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)

- 1. Cap 167A2343P1 SA182-P304 3/8 thick x 1 1/16 00
- Indicator Tube 104B1336P3 SA312-TP316 3/4 ach 40-seemless pipe 0.113 wall thickness 1.065 max. dia.
- 3. Plug 159All76Pl SA182-F304 1/4 thick x 0.812 OD
- 4. Flange 919D610P1 (719E474) SA182-P304 3.37 thick x 9 5/8 00
- 5. Head 129B3539P3,P5 SA182-F304 7/8 thick x 2.875 Dia.
- 6. Ring Flange 114B5122P2 SA182-F304 1" thick x 5.0 00 x 1.75 10
- 7. Cap Screw 117C4516P2 SA193-B6 6 ca. 1/2 dia. on 4 1/8 bolt circle
- 8. Plug 175A7961P1 SA182-F304 0.38 thick x 1.307 dia.



Date: 06/22/01

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD Piston Tube Piston Tube	General Electric General Electric General Electric	A8552 6042 0935	N/A N/A N/A	N/A N/A N/A	1988 1975 1995	Replaced Replacement	Yes, Code Class 1 Yes, Code Class 1 Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No A8552. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No A8552. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed visual examination on the existing Piston Tube assembly Serial No 6042. Visual examination results unacceptable (pitting).
 - 4) Installed replacement Piston Tube assembly Serial No 0935.
 - 5) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 6) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 7) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES-

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 0935.
- 2) The existing Piston Tube assembly Serial No 6042 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 3) The replacement Piston Tube assembly Serial No 0935 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The Control Rod Drive (CRD) assembly Serial No A8552 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 5) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A8552.

WOT No MHX5 10

EMERGYNORTHWEST

Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other X None Test Pressure: Psig Test Temperature: ° F Component Design Pressure: Psig Temperature: ° F Remarks: See attached N-2 Code Data Report for the replacement Piston Tube assembly Serial No 0935.
CERTIFICATE OF COMPLIANCE
We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI. Type Code Symbol Stamp: Not Applicable Certificate Of Authorization No.: Not Applicable Expiration Date: Not Applicable Prepared By
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel inspectors and the State of Washington and employed by Factory Mutual insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period
Implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Commissions 7486 w/2486 w I I Inspector's Signature National Board, State, and Endorsements Date T/10/01

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div, I Luay Ruy
ه (23/4) 1anufactured & Certified by : <u>General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)</u>
2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)
(b) Manufactured for : WNP 2 Richland, Washington 99352 (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification - Certificate Holder's S/N of Part : <u>0935</u> Nat'l Bd. No. <u>N/A</u>
(a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
(b) Description of Part Inspected: Piston Tube Assembly
(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1
REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
Sheet 1 of 2
We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).
Date: 06/27/95 Signed GE - NEBG - NF & CM - QA By CA Representive) On the control of the contr
tertificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151
Certification of Design for Appurtenance
Design information on file at
Stress analysis report on file at <u>GE Company, San Jose, California</u>
DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
Certification of Shop Inspection
I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.
Date Inspector's Signature NC 1231, Ohio, WC 3686 PA Inspector's Signature National Board, State, Province And No.
W emperors a magnetical state and st

^{*.} plemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Ite	ems 4-8 I	ncl. to be co	ompleted for sin	gle wall ve	ssels, jacket	s vessels, or	shells of heat	exchangers.	
4.	Shell:		T.S. Spec. No.) (Min. of Ran		in. Al	errosion llowance	in. Dia fi	in. Lengt	th ft in.
5.	Seams:	Long		H.T		R.T.		Efficiency	x
				1				No. of Cour	
6.	Heads:							T.S	
	Locatio	n (Top	Crown ickness Radius	Knuck le	Elliptical Ratio	Concial Apex Angle	Hemispherical	Flat Sic	de to Press.
(a) (b)									<u> </u>
(-,	If remo	vable, bolts		II, Spec. No., T.S.	Size Number)	Other faster	ning	Describe or attach sketch	
7.	Jacket	Closure:	·			Nanaharati			
			·	-		_	Charpy	n; Meight / Impact	ft-1b
8.	Design	pressure	1250	ps	i at	575	_ Fatten	p of	F
			mpleted for tube		· · · · · · · · · · · · · · · · · · ·				
9.	Tube Sh	eets: Statio	onary. Material		Dia		Thickness	in. Attach	ment
				(Kind & Spo	ec. No.)	(Subject to pressur	•)		(Welded, Bolted)
0.	Tubes:							umber	Туре
		14 4-1 4-4	3					<u> </u>	(Str. or U)
116	ms 11	14 Incl. to b	e completed for				r channels of n	eat exchangers.	
1.	Shell:	Material(Kind & S	T.S. Spec. No.) (Min. of Rang	e Specified)	in. Al	rrosion lowance i	n. Dia ft	in. Lengt	h ft in.
2.	Seams:	Long		н.т.¹		R.T		Efficiency	x
		Girth		н.т.	·····	R.T		No. of Cour	ses
3.	Heads:	(a) Material			T.S	(b) Ma	terial	T.S	
(a)	Locat Top,bott	tom, ends	Crown ckness Radius	Knuck le Radius	Elliptical Ratio		Hemispherical Radius		e to Press. Dnv. or conc.)
(0)	Channel If remov		used (a)	(b)	(c)	Other	fastening		
							Drop We Charpy	(Describe or at eight Impact	•
4.	Design p	ressure		p	si at		Fat temp	of	°F
ite	ns below	to be comple	ted for all vess	els where a	pplicable.				
			: Number				Locatio	วก	
6.	Nozz les:	Purpose (inlet,					_	Reinforcement	
		Outlet, Drain)	Number	Dia. or Size	Тур•	Material	Thickness	Material	How Attached
7.	Inspecti	on Manholes			Size				
	Open ings		s, No	· · · · · · · · · · · · · · · · · · ·	Size	LC	cation		
,	C.,,,,,,,,		·						
·.	Supports		Lugs _ (se or No)	(Number)	Legs	Yumber)	(Describe)	Attached _	(Where & How)

^{1 -} If Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. I

Manufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM

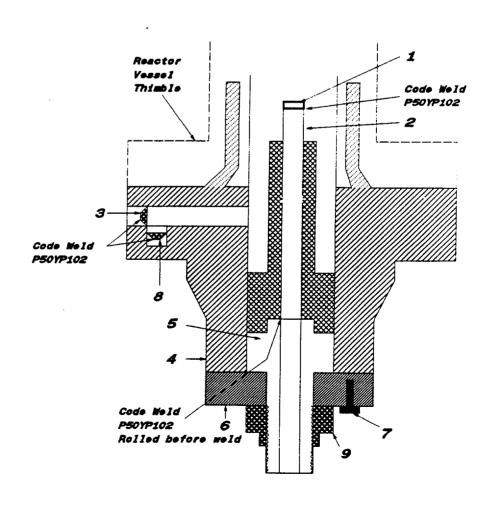
2117 Castle Hayne Road, Wilmington, North Carolina 28401

(Name and Address of NPT Certificate Holder)

(b)	Manufactured for :	WNP 2	Richland,	Washington 99352			
		(Name	and Address of N	Cartificate Holder f	or completed	Duclear component	

- 2. Identification Certificate Holder's S/N of Part : <u>0935</u> ____ Nat'l Bd. No. __N/A
 - (a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: Piston Tube Assembly
 - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)

- 1. Cap 166B9274P001 SA182 - F316 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



Date: 06/22/01

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

- 5. (a) Applicable Construction Code: ASME Section III, Code Class 1 See Notes For Code Edition, Addenda And Code Cases
- (b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A8461	N/A	N/A	1988		Yes, Code Class 1
							 ·

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No A8461. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No A8461. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES-

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No A8461.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No A8461 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A8461.

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EMERGYNORTHWEST

8	Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None Test Pressure: Psig Test Temperature: F Component Design Pressure: Psig Temperature: F
9.	Remarks: None
	CERTIFICATE OF COMPLIANCE
	We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI. Type Code Symbol Stamp: Not Applicable Certificate Of Authorization No.: Not Applicable Expiration Date: Not Applicable
:	Prepared By Kuldip Singh - Program Lead Engineer (PLE) Signed By Kuldip Singh - Program Lead Engineer (PLE)
	Date 6 23 01
	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 of Washington and employed by Factory Mutual Insurance Company of Johnston, Rhode Island have inspected the components described in this Owner's Report during the period
	Commissions 7484 w/7400 mZ ZS Inspector's Signature Commissions 7484 w/7400 mZ ZS National Board, State, and Endorsements
	Date 7/10/0/

Date: 06/22/01

Sheet: 1 0f 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A8577	N/A	N/A	1988	Replaced Replacement Replaced Replaced	Yes, Code Class 1
CT&F	General Electric	A8577	N/A	N/A	1988		Yes, Code Class 1
CT&F	General Electric	A9293	N/A	N/A	1995		Yes, Code Class 1
Piston Tube	General Electric	5980	N/A	N/A	1975		Yes, Code Class 1
Piston Tube	General Electric	0858	N/A	N/A	1995		Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No A8577. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

1) Disassembled Control Rod Drive (CRD) assembly for overhaul.

- 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No A8577. Liquid penetrant (PT) examination results acceptable.
- 3) Performed visual examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No A8577. Visual examination results unacceptable (galling of cooling water orifice).

4) Installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9293.

5) Performed visual examination on the existing Piston Tube assembly Serial No 5980. Visual examination results unacceptable (pitting).

6) Installed replacement Piston Tube assembly Serial No 0858.

- 7) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 8) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 9) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9293.
- 2) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 0858.
- 3) The existing Cylinder Tube And Flange (CT&F) assembly Serial No A8577 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9293 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 5) The existing Piston Tube assembly Serial No 5980 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no
- 6) The replacement Piston Tube assembly Serial No 0858 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 7) The entire Control Rod Drive (CRD) assembly is now identified by the replacement Cylinder Tube And Flange (CT&F) Serial No A9293.

WOT No MHX5 19

EMERGYNORTHWEST

Tests Conduct	ed: Hydrostatic Pneu Test Pressure: Psig Component Design Pres	7	Operating Pressure Other _X_ Non est Temperature: ° F emperature: ° F
). Remarks: See :	attached N-2 Code Data Reports fo	or the following replacement p	parts:
Cylinder Tube And Fl Piston Tube assembly	ange (CT&F) assembly Serial No A y Serial No 0858.	19293.	
	CERT	TIFICATE OF COMPL	IANCE
to the rules of Type Code S Certificate Of Expiration De	of the ASME Code, Section of the ASME Code, Section of ymbol Stamp: Not Applicable of Authorization No.: Not Applicate: Not Applicable	XI.	re correct and this replacement conforms
Prepared By Date	Kuldip Singh - Program Lead En	Signed By Signed By Date	Kuldip Singh - Program Lead Engineer (PLE)
	CERTIFIC	ATE OF INSERVICE I	NSPECTION
Vessel Inspection, Rhoperiod	ctors and the State of Wash de Island have inspected the decision of the Island have inspected the erformed examinations and the with the requirements of his certificate neither the In- cerning the examinations and the inspector nor	hington and employed line components described and state to the distance means are assented as the ASME Code, Sections as the corrective measure this employer shall be	National Board of Boiler and Pressure by Factory Mutual Insurance Company of bed in this Owner's Report during the ne best of my knowledge and belief, the asures described in this Owner's Report ion XI. Byer makes any warranty, expressed or es described in this Owner's Report. Ilable in any manner for any personal or connected with this inspection.
12 M	Inspector's Signature	Commission	National Board, State, and Endorsements
Date	10/0/ -		

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM) 2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder) Richland, Washington 99352 (b) Manufactured for : WNP 2 (Name and Address of N Certificate Holder for completed nuclear component) ___ Nat'l Bd. No. N/A 2. Identification - Certificate Holder's S/N of Part : A9293 (a) Constructed According to Drawing No: 919D258G003 Rev 19 Dwg. Prepared by D. L. Peterson (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u> (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed) Sheet 1 of 2 We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Signed <u>GE - NEBG - NF & CM - QA</u> Date: 06/27/95 (NPT Certificate Holder) Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151 Certification of Design for Appurtenance GE Company, San Jose, California Design information on file at ___ Stress analysis report on file at ___<u>GE Company</u> , <u>San Jose</u> , <u>California</u> Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

Certification of Shop Inspection

I. the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

Date

| NC 1231, Ohio, WC 3686 PA | National Board, State, Province And No.

Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

^{*}Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

					N	r.					
4.	Shell:		T nd & Spec. No.)			in. A	orrosion lowance	in. Dia	ft in.	Length ft	
5.	Seams:	Long					R.T.		Effic	iency	;
		Girth _			н.т. 1		R.T.		No. of	Courses	
i.	Heads:	(a) Mate	rial			T.S	(b) M	laterial	1	r.s	
a)	Bottom,		Thickness	Crown Radius		Elliptical Ratio	Concial Apex Angle		al Flat Diameter	Side to Press. (conv. or conc	. }
b)			its used _				Other faste	ning			_
	Jacket	Closure:		<u> </u>	I, Spec. No., T.S.				(Describe or attach	sketch }	
				(De	ecribe as ogee a	nd weld, ber, etc. If	bar give dimensions,	if boits, describe or st Drop Char	. Unioba	ft	
	Design	pressure		1250	ps	i at	575	F at t	emp of	° F	
			comp leted								
	Tube Sh	neets: St	ationary.	Material		Dia	•	Thickness	in. A	ttachment	
					(Kind & Sp	ec. No.)	(Subject to pressu	re)		(Welded	Boll
	Tubes:									Type	
_										(Str.	
	- 11 -										
-		14 incl.	to be comp	leted for	inner cham		ted vessels, d	or channels of	heat exchang	ers.	
-		Material	•	.S. (Min. of Range	Nominal Thickness • Specified)	Co in. Al	rrosion lowance i	in. Dia	ft in.	Length ft	
	Shell:	Material (Kr	т.	.S. (Min. of Range	Nominal Thickness Specified)	Co in. Al	rrosion lowance i	in. Dia	ft in.		
	Shell:	Material (199	T,	S. (Min. of Range	Nominal Thickness • Specified) 1 H.T.	Co in. Al	rrosion lowancei	in. Dia	ft in.	Length ft	x
•	Shell: Seams:	Material (1994) Long	T.	S	Nomina? Thickness • Specified) 1 H.T.	in. Al	rrosion lowance i	in. Dia	ft in. Efficient	Length ft	*
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	Shell: Seams: Heads: Loca Top.bot Channel	Material (Nor Long Girth (a) Material tion tom.ends	T. rial Thickness	S. (Min. of Range	Nomina? Thickness Specified) 1 H.T. 1 H.T. Knuck le Radius	T.SElliptical Ratio	R.T (b) Ma Concial Apex Angle	in. Dia Hemispherica Radius fastening Drop	ft in. Efficient No. of The state Diameter The state The sta	Length ft ency CoursesS Side to Press. (conv. or conc.	
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)	Shell: Seams: Heads: Loca Top.bot Channel If remo	Material (Nor Long	Thickness Lts used (a	SCIMIN. of Range	Nomina I Thickness • Specified) H.T. H.T. Knuck le Radius (b)	T.S Elliptical Ratio (c)	R.T R.T (b) Ma Concial Apex Angle Other	in. Dia Hemispherica Radius fastening Drop	ft in. Efficient No. of The state Diameter Weight One of Weight One of Weight One of The state One of The state One of The state One of The state One of One of The state One of One	Length ft ency CoursesS Side to Press. (conv. or conc be or attach sketch) ft o	_,;
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))	Shell: Seams: Heads: Loca Top.bot Channel If remo Design s below Safety	Material (No. Long Girth (a) Material tion tom.ends vable, bo pressure to be con	Thickness Its used (a	Crown Radius	Nomina I Thickness • Specified) H.T. H.T. Knuck le Radius (b)	T.S. Elliptical Ratio (c) si at pplicable.	R.T R.T (b) Ma Concial Apex Angle Other	terial Hemispherica Radius Drop Charp F at te	ft in. Efficient No. of I Flat Diameter Weight Diameter Weight Diameter weight Diameter Diameter I Diameter	Length ft ency	_,;
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aa)	Shell: Seams: Heads: Loca Top,bot Channel If remo Design s below Safety Nozzles:	Material (Normal Long	Thickness Thickness Its used (a pleted for lets: Numb	Crown Radius) all vesseer	Nomina I Thickness Specified) H.T. H.T. Knuck le Radius (b) Pels where a	T.S Elliptical Ratio (c) si at pplicable. Size	R.T	terial Hemispherica Radius Brop Charp Charp F at te F at te Locat Thickness cocation cocation	ftin. Efficient No. of The state Diameter Weight The state Weight The state	Length ft ency Courses Side to Press. (conv. or conc. be or attach sketch) ft F	x

^{1 -} If Postweid Heat-Treated,

^{2 -} List other internal or external pressure with coincident temperature when applicable.

MHX5 19 FORM N-2 NPT CERTIFICATE HULDERS' DATA REPORT FOR NUCLEAR . . . RT AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

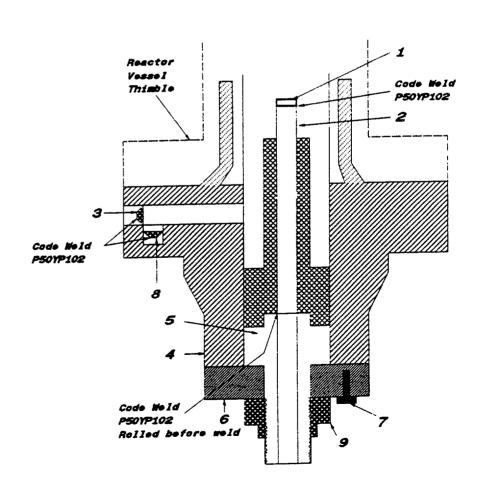
2117 Castle Havne Road, Wilmington, North Carolina 28401

/// Uas	su u ri	QY119	7 / IUQU.	777	11 1 111	GIOII, TIGIL		
(Name	and	Address	of	NPT	Certificate	Holder)

/ L 1	Manufactured for :	WNP 2	Richland.	Washington 9935	<u>? </u>			
(0)	mailulactuled for .	(Name and	Address of N	Certificate Holder	for	completed	nuclear	component

- Nat'l Bd. No. ___N/A 2. Identification - Certificate Holder's S/N of Part : A9293
 - (a) Constructed According to Drawing No: 919D258G003 Rev 19 Dwg. Prepared by D. L. Peterson
 - (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
 - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)

- 1. Cap 166B9274P001 SA182 - F316 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4° sch 40 - seamless pipe 0.113" wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4° thick x 0.812° OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 11485122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



MAX5 19

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I 011

the safe
るしまり。 anufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
2117 Castle Havne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)
(b) Manufactured for : WNP 2 Richland, Washington 99352 (Name and Address of N Certificate Holder for completed nuclear component)
Identification - Certificate Holder's S/N of Part : 0858 Nat'l Bd. No. N/A
(a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson
 (b) Description of Part Inspected: <u>Piston Tube Assembly</u> (c) Applicable ASME Code: Section III , Edition <u>1974</u> , Addenda Date <u>W75</u> , Case No. <u>1361-2</u> Class <u>1</u>
REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
Sheet 1 of 2
We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).
Date: 06/27/95 Signed GE - NEBG - NF & CM - QA By SC QA Representive)
Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151
Certification of Design for Appurtenance
Design information on file at
Stress analysis report on file at <u>GE Company, San Jose, California</u>
DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on \$\(\subseteq \frac{5}{5}, \left(\frac{994}{994} \right). and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

NC 1231, Ohio, WC 3686 PA me National Board, State, Province And No. Inspector's Signature

pplemental sheets in form of lists, sketches or drawing may be used provided (1) size is $8-1/2^{\prime\prime\prime}$ x $11^{\prime\prime\prime}$, (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

A	·								
₹.	Shell: M				in. Al	rrosion lowance	in. Dia	ft in. l	ength ft
		•	c. No.) (Min. of Ran	1					
5.	Seams: L	.ong		H.T. ₁		R.T.		Effici	encyx
	G	irth				R.T.		No. of	Courses
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	Location Bottom, E	inds) Thick	Crown ness Radius		Elliptical Ratio	Concial Apex Angle			Side to Press. (conv. or conc.)
ַ (ס)		ıble, bolts us				Other faste	ning		
		•	(Materi	N, Spec. No., T.S.	Size Number)	ounce radio		(Describe or attach :	Hetch)
•	Jacket Cl	losure:		escribe as ogee ar	nd weld, bar, etc. If t	per give dimensions,	if bolts, describe or si	setch)	
			·	-			Dros Chai	Weight	ft-lb
3. [Design pr	essure	1250	ps	i at	575	_°F at 1	emp of	F
tem	s 9 and 1	0 to be compl	eted for tube	sections					
).	Tube Shee	ts: Stationa	ry. Material		Dia	·	Thickness	in. At	tachment
		Floating	. Material	(Kind & Spe	c. No.) Dia	(Subject to pressu	re) Thickness	in. At	(Welded, Bolted
١. '	Tubes: M								Type
									(Str. or U)
			c. No.) (Min. of Ranç	e Specified)					ength ft i
•		irth		1					Courses
. 1									s
	Locati		Crown ness Radius		Elliptical Ratio	_	Hemispherica	1 Flat	
b) (Channe 1	ble, bolts us		(b)	<u>(c)</u>	Other	fastening	-	
		,	· · · · · · · · · · · · · · · · · · ·	,·/	, , ,				ne or attach sketch)
								Weight py Impact	ft-1b
							_		
	Design pro	2 essure		p	si at		Fatt	emp of	° F
. (essure					Fat t	emp of	
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. [s below to Safety Va	o be complete	d for all ves	els where a	pplicable.			tion	F
tems	Safety Va	essure o be complete lve Outlets: Purpose (inlet, Outlet, Drain)	d for all vess	Dia. or Size	pplicable. Size _ Type	Material	Loca	Fleinforcerr Material	ent How Attached
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tems	Safety Va Nozzles:	essure o be complete lve Outlets: Purpose (inlet, Outlet, Drain) n Manholes,	Number Number	Dia. or Size	pplicable. Size _ Type	MaterialL	Loca Thickness	tion	ent How Attached

^{1 -} If Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE ...JLDERS' DATA REPORT FOR NUCLEAR ART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401

(Name and Address of NPT Certificate Holder)

(b)	Manufactured for	:	WNP 2	Richland, Washington 99352	
,			(Name and	Address of N Certificate Holder for completed nuclear comp	onent

2. Identification - Certificate Holder's S/N of Part : <u>0858</u> Nat'l Bd. No. <u>N/A</u>

(a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson

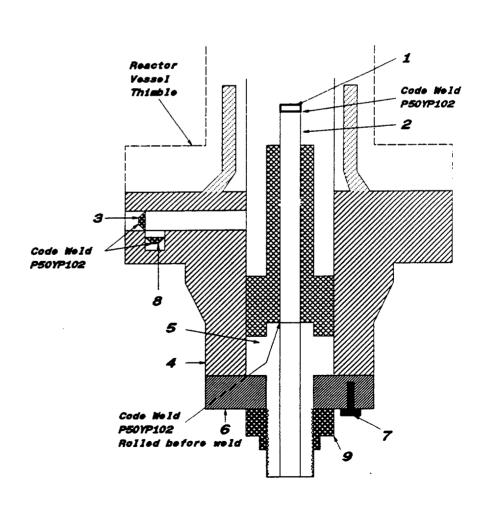
(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

(Brief description of service for which component was designed)

- 1. Cap 166B9274P001 SA182 - F316 3/8" thick x 1 1/16" OD
- Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1,065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37° thick x 9 5/8° OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1* thick x 5.0* OD x 1.75* ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30" thick x 2.62" dia.



Date: 06/22/01

Sheet: 1 Of 1

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	7168	N/A	N/A	1975	***************************************	Yes, Code Class 1
CT&F	General Electric	7168	N/A	N/A	1975	Replaced	Yes, Code Class 1
CT&F	General Electric	A9454	N/A	N/A	1995	Replacement	Yes, Code Class 1
Piston Tube	General Electric	5600	N/A	N/A	1975	Replaced	Yes, Code Class 1
Piston Tube	General Electric	0883	N/A	N/A	1994	Replacement	Yes, Code Class 1

7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No 7168. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:

1) Disassembled Control Rod Drive (CRD) assembly for overhaul.

2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No 7168. Liquid penetrant (PT) examination results unacceptable.

3) Installed replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9454.

4) Performed visual examination on the existing Piston Tube assembly Serial No 5600. Visual examination results unacceptable (pitting).

5) Installed replacement Piston Tube assembly Serial No 0883.

- 6) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
- 7) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
- 8) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Cylinder Tube And Flange (CT&F) assembly Serial No A9454.
- 2) ASME Section III Code Cases are as listed on the attached N-2 Code Data Report for the Piston Tube assembly Serial No 0883.
- 3) The existing Cylinder Tube And Flange (CT&F) assembly Serial No 7168 is certified to comply with ASME Section III, Code Class 1,
- 1971 Edition with no Addenda.
 4) The replacement Cylinder Tube And Flange (CT&F) assembly Serial No A9454 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 5) The existing Piston Tube assembly Serial No 5600 is certified to comply with ASME Section III, Code Class 1, 1971 Edition with no Addenda.
- 6) The replacement Piston Tube assembly Serial No 0883 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda
- 7) The entire Control Rod Drive (CRD) assembly is now identified by the replacement Cylinder Tube And Flange (CT&F) Serial No A9454.

WOT No MHX5 24

EMERGYNORTHWEST

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

Tests Conduct	ted: Hydrostatic Pneumatic Nominal Operating Pressure Other None Test Pressure: Psig Test Temperature: F Component Design Pressure: Psig Temperature: F
. Remarks: See	attached N-2 Code Data Reports for the following replacement parts:
ylinder Tube And Fl iston Tube assembl	lange (CT&F) assembly Serial No A9454. ly Serial No 0883.
	CERTIFICATE OF COMPLIANCE
to the rules of Type Code S Certificate O	at the statements made in this Owner's Report are correct and this replacement conforms of the ASME Code, Section XI. Symbol Stamp: Not Applicable If Authorization No.: Not Applicable ate: Not Applicable Signed By Kuldip Singh - Program Lead Engineer (PLE) Code
	CERTIFICATE OF INSERVICE INSPECTION
Vessel Inspersion, Rho period	ligned, holding a valid commission issued by the National Board of Boiler and Pressure actors and the State of Washington and employed by Factory Mutual Insurance Company of ode Island have inspected the components described in this Owner's Report during the to and state to the best of my knowledge and belief, the performed examinations and taken corrective measures described in this Owner's Report the with the requirements of the ASME Code, Section XI. This certificate neither the Inspector nor his employer makes any warranty, expressed or cerning the examinations and corrective measures described in this Owner's Report. In this owner's Report was any manner for any personal aperty damage or a loss of any kind arising from or connected with this inspection.
Date 7/	Inspector's Signature Commissions 74164/7486 NT IS National Board, State, and Endorsements
Date	

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I 6/23/01 1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM) 2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder) Richland, Washington 99352 (b) Manufactured for : WNP 2 (Name and Address of N Certificate Holder for completed nuclear component) ___ Nat'l Bd. No. ___N/A 2. Identification - Certificate Holder's S/N of Part : A9454 (a) Constructed According to Drawing No: 919D258G003 Rev 19 Dwg. Prepared by D. L. Peterson (b) Description of Part Inspected: <u>Cylinder Tube & Flance</u> (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi, min. (Brief description of service for which component was designed) Sheet 1 of 2 We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Signed GE - NEBG - NF & CM - QA Date: 06/27/95 (MPT Certificate Holder) No. : NPT N - 1151 Certificate of Authorization Expires: 6/16/96 Certification of Authorization Certification of Design for Appurtenance Design information on file at ______ GE Company . San Jose . California Stress analysis report on file at ____ GE Company . San Jose . California Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u> Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 6/27, 1975, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

NC 1231, Ohio, WC 3686 PA National Board, State, Province And No.

^{*}Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Items 4-8 Incl. to be completed						
4. Shell: MaterialT. (Kind & Spec. No.)	Nomina 1 S. Thickness Min. of Range Specified)	in. All	rosion lowance in	. Dia ft.	in. Le	ngth ft i
5. Seams: Long	н.т.¹		R.T		_ Efficien	сух
6irth	1		R.T		No. of C	ourses
6. Heads: (a) Material				erial	T.S	•
Location (Top Bottom, Ends) Thickness	Crown Knuckle	Elliptical Ratio		Hemispherical Radius		Side to Press. (conv. or conc.)
(a)			Other fasteni			
If removable, bolts used	(Meterial, Spec. No., T.S.	Size Number)	Office (42 fell)	(5	eacribe or attach six	rich)
7. Jacket Closure:	(Describe as ogee as	nd weld, ber, etc. If b	er give dimensions, if b	Dwan W	iant	ft-1b
8. Design pressure	1250 95	i at	575	Δ		٥
				,		
Items 9 and 10 to be completed		O÷-		Thickness	in A++	a chment
9. Tube Sheets: Stationary.	/ Mari 6 0m	aa Nia l	(Subject to organize)			(VPGCGC, SORGC
						achment
10. Tubes: Material	O.D	in. Thick	inessi	inches or gage. Nu	mber	Type(Str. or U)
Items 11 - 14 incl. to be compl	ated for inner cham	here of jacket	ed vessels or	channels of he	at exchanger	š.
		· Cas	ene ion			4
(Kind & Spec. No.)	(Min. of Range Specified) 1	in. All				
(Kind & Spec. No.)	S Thickness (Min. of Range Specified)	in. A1	R.T.		_ Efficienc	зух
(Kind & Spec. No.)	S Thickness (Min. of Range Specified) H.T H.T	in. Al	R.T R.T		_ Efficient	cy
(Mnd & Spec. No.)	S Thickness (Min. of Range Specified) H.T H.T Crown Knuck le	T.S	R.T R.T R.T R.T R.T Concial	erial	Efficienc No. of Co T.S. Flat	cy
(Kind & Spec. No.) 12. Seams: Long Girth 13. Heads: (a) Material Location Thickness (a) Top,bottom,ends	S Thickness (Min. of Range Specified) H.T H.T Crown Knuck le	in. All	R.T R.T R.T R.T R.T Concial	erial	Efficienc No. of Co T.S. Flat	ourses
(Kind & Spec. No.) 12. Seams: Long Girth 13. Heads: (a) Material Location Thickness	S Thickness (Min. of Range Specified) H.T H.T Crown Knuck le Radius Radius	T.SElliptical Ratio	R.T R.T (b) Mate	erial	Efficient No. of Co T.S Flat Signmeter	ourses Side to Press. (conv. or conc.)
Girth Location Thickness (a) Top,bottom,ends (b) Channel If removable, bolts used (a)	S Thickness (Min. of Range Specified) H.T H.T Crown Knuck le Radius Radius	T.SElliptical Ratio	R.T R.T (b) Mate	erial Hemispherical Radius fastening	Efficience No. of Column T.S. Flat Diameter	ourses Side to Press. (conv. or conc.)
(Rind & Spec. No.) 12. Seams: Long Girth 13. Heads: (a) Material Location Thickness (a) Top, bottom, ends (b) Channel If removable, bolts used (a	S Thickness (Min. of Range Specified) H.T H.T Crown Knuck le Radius Radius (b) (b)	T.SElliptical Ratio	R.T	erial Hemispherical Radius fastening	Efficience No. of Control T.S. Flat Diameter (Describe	ourses Side to Press. (conv. or conc.) or attach swetch)
(Kind & Spec. No.) 12. Seams: Long Girth 13. Heads: (a) Material Location Thickness (a) Top.bottom.ends (b) Channel If removable, bolts used (a	S Thickness (Min. of Range Specified) H.T H.T Crown Knuck le Radius Radius) (b)	T.S Elliptical Ratio (c)	R.T	erial Hemispherical Radius fastening Drop We Charpy	Efficience No. of Control T.S. Flat Diameter (Describe	ourses Side to Press. (conv. or conc.) or attach statch)
Girth Girth Location Thickness (a) Top.bottom.ends (b) Channel If removable, bolts used (a	S Thickness (Min. of Range Specified) H.T H.T Crown Knuckle Radius Radius)(b) all vessels where a	T.S. Elliptical Ratio (c) osi at applicable.	R.T R.T (b) Mate Concial Apex Angle F	Hemispherical Radius fastening Drop We Charpy Fat temp	Mo. of Control T.S Flat Diameter (Describe ight Impact of	ourses Side to Press. (conv. or conc.) or attach statch)
Girth 13. Heads: (a) Material Location Thickness (a) Top.bottom.ends (b) Channel If removable, bolts used (a) 14. Design pressure 15. Safety Valve Outlets: Numb	S Thickness (Min. of Range Specified) H.T H.T Crown Knuckle Radius Radius)(b) all vessels where a	T.S. Elliptical Ratio (c) osi at applicable.	R.T R.T (b) Mate Concial Apex Angle F	Hemispherical Radius fastening Drop We Charpy Fat temp	Mo. of Control T.S Flat Diameter (Describe ight Impact of	ourses Side to Press. (conv. or conc.) or attach swetch) ft-1b
(Kind & Spec. No.) 12. Seams: Long Girth 13. Heads: (a) Material Location Thickness (a) Top.bottom.ends (b) Channel If removable, bolts used (a) 14. Design pressure 15. Safety Valve Outlets: Numb 16. Nozzles: Purpose (Inlet,	S Thickness (Min. of Range Specified) H.T H.T Crown Knuckle Radius Radius)(b) all vessels where a	T.S. Elliptical Ratio (c) osi at applicable.	R.T R.T (b) Mate Concial Apex Angle F	Hemispherical Radius fastening Drop We Charpy Fat temp	Efficient No. of Co T.S. Flat Diameter	ourses Side to Press. (conv. or conc.) or attach swetch) ft-1b
(Kind & Spec. No.) (Girth Girth 13. Heads: (a) Material Location Thickness (a) Top.bottom.ends (b) Channel If removable, bolts used (a 14. Design pressure Items below to be completed for 15. Safety Valve Outlets: Numb 16. Nozzles: Purpose (Iniet, Outlet, Drain) Num	S Thickness (Min. of Parige Specified) H.T H.T Crown Knuck le Radius Radius)(b) all vessels where a er	T.S. Elliptical Ratio (c) osi at applicable. Size	R.T R.T (b) Nate Concial Apex Angle Gother for the Concient of	erialHemispherical Radius	Efficient No. of Co T.S. Flat Diameter	Side to Press. (conv. or conc.) or attach statch) ft-1b F
Girth 13. Heads: (a) Material Location Thickness (a) Top.bottom.ends (b) Channel If removable, bolts used (a) 14. Design pressure Items below to be completed for 15. Safety Valve Outlets: Numb 16. Nozzles: Purpose (Iniet, Outlet, Drain) Number 17. Inspection Manholes, No. Openings: Handholes, No.	S Thickness (Min. of Range Specified) H.T H.T Crown Knuck le Radius Radius [b] [b] all vessels where a ger	T.S Elliptical Ratio (c) psi at applicable. Size Size Size	lowance in in in in	erial Hemispherical Radius fastening Drop We Charpy Fat temp Location Thickness	Efficient No. of Co T.S. Flat Diameter	Side to Press. (conv. or conc.) or attach statch) ft-1b F
Girth 13. Heads: (a) Material Location Thickness (a) Top.bottom.ends (b) Channel If removable, bolts used (a) 14. Design pressure Items below to be completed for 15. Safety Valve Outlets: Numb 16. Nozzles: Purpose (Inlet, Outlet, Drain) Number 17. Inspection Manholes, No.	S Thickness (Min. of Range Specified) H.T H.T Crown Knuck le Radius Radius [b] all vessels where a ger moor Dia, or Size	T.S Elliptical Ratio (c) psi at applicable. Type Size	R.T. R.T.	erialHemispherical Radius	Efficient No. of Co T.S. Flat Diameter	ourses Side to Press. (conv. or conc.) or ettach swetch) ft-1b F

^{1 -} If Postweld Heat-Treated.

^{2 -} List other internal or esternal pressure with coincident temperature when applicable.

MHX524

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR. ART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Diy. I

6)23(4)

Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)

(b) Manufactured for : WNP 2	Richland, Washington 99352 Address of N Certificate Holder for completed nucleons	clear component)
Identification - Certificate Holder's	AL ALE MAN	N/A

(a) Constructed According to Drawing No: 919D258G003 Rev 19 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

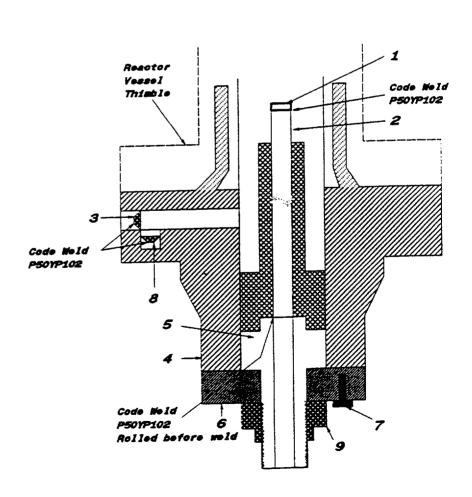
(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

(Brief description of service for which component was designed)

Sheet 2 of 2

- 1. Cap 16689274P001 SA182 - F316 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 16784908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37* thick x 9 5/8* OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- Ring Flange 114B5122P002 SA182 - F304 1* thick x 5.0* OD x 1.75* ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30" thick x 2.62" dia.



MHX5 24

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

	6)25/01
Manufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing	(GE NF & CM)
2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)	

	2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)
	(b) Manufactured for : WNP 2 Richland, Washington 99352 (Name and Address of N Certificate Holder for completed nuclear component)
2.	. Identification - Certificate Holder's S/N of Part, : <u>0883</u> Nat'l Bd. No. <u>N/A</u>
	(a) Constructed According to Drawing No: <u>798D228G012 Rev 36</u> Dwg. Prepared by <u>D. L. Peterson</u>
	(b) Description of Part Inspected: <u>Piston Tube Assembly</u>
	(c) Applicable ASME Code: Section III . Edition <u>1974</u> . Addenda Date <u>W'75</u> . Case No. <u>1361-2</u> Class <u>1</u>
3	. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)
	Sheet 1 of 2
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report). Date: O1/19/94 Signed GE-NEBG-NF&CM-QA (NPT Certificate Holder) Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: NPT N-1151
Γ	Certification of Design for Appurtenance
Ì	Design information on file at <u>GE Company, San Jose, California</u>
	Stress analysis report on file at <u>GE Company, San Jose, California</u>
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

1/20 1994 Jeone Curt NC 1231, Ohio, WC 3686 PA
Date Inspector's Signature National Board, State, Province And No.

Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2 (back)

Ite	ms 4-8 I	ncl. 1	to be compl	eted for sing	le wall ves	sels, jacke	ts vessels, or	shells o	f heat ex	changers.		·
4.	Shell:	Mate	rial(Kind & Spec.	T.S. No.) (Min. of Range	Nominal Thickness Specified)	in. A	orrosion llowance	in. Dia.	ft.	in. Ler	ngth	_ ft i
5.	Seams:	Long			н.Т. ¹		R.T.			Efficien	=у	x
					1					No. of C	ourses _	· · · · · · · · · · · · · · · · · · ·
6	Waade ·							Material _		T.\$		
	Location,	on (T , Ends	op) Thickn	Crown ness Radius	Knuck le Radius	Elliptical Ratio	Concial Apex Angle	Hemisph			Side to	Press.
(b)				ed			Other fast	en ing				
		_		(, Spec. No., T.S.	Size Number)			(De	scribe or attach skr	rich)	
7.	Jacket	Closu	re:	(De			If bar give dimensions		Charpy	Impact		
8.	Design	press	ure	1250	ps	i at	575	F	at temp	of		F
It	ems 9 an	d 10 t	o be comple	eted for tube	sections							
9.	Tube S	heets:	Stationa Floating	ry. Material	(IQnd & Sq	D	ia	Thi	ckness _	in. Att	achment	
10.	Tubes:	Mate	erial		0.0.	in. Th	ickness	inches or	gage. Nu	mber	ا ^و د	(Str. or U)
	'		-1 4- 1-	completed for	innan char	here of isc	keted vessels.	or chann	els of he	at exchange	rs.	
			(Kind & Spe	c. No. } (Min. of Han	je Specmes j	s in.						ftx
12.	. Seams:									No. of		
(a	Loc a) Top,bo	cation ottom,	Thick	Crown kness Radius	Knuck le	Elliptica	Concial Apex Angle	Hemisp	herical	Flat	Side to	Press. or conc.)
(1	b) Channo If re	eı novabî	e, bolts us	sed (a)	<u>(b)</u>	(c)	Otl	her faster	ing	/ Descri	be or attach	skeich)
			2						Drop Working Charpy	eight Impact		•
	. Desig					psi at			r at 100	y 01		<u> </u>
				ed for all ve								• • • •
15	. Safet	y Valv	re Outlets:	Number		Si	ze		Locati	on		
16	. Nozzl		rpose (inlet, utlet, Drain)	Number	Dia, or Si	T)	/pe Male	riai -	Thickness	Reinforcer Material	nent	How Attached
17	. Inspe Openi	ction ngs:	Hanholes, Handholes Threaded,	, No		Size Size Size		Locatio	n			
18	. Suppo	rts:	Skirt(Y	Lugs	(Number		(Number)	Other	(Describe)	Atta		Where & How)

^{1 - #} Postweld Heal-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

6123101 1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

2117 Castle Havne Road, Wilmington, North Carolina 28401

THE CASHETTI	TALL TOUR				7
(Name	and Address	of MPT	Certificate	Bolder))

Richland, Washington 99352 (b) Manufactured for : WNP 2 (Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : 0883 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 798D228G012 Rev 36 Dwg. Prepared by D. L. Peterson

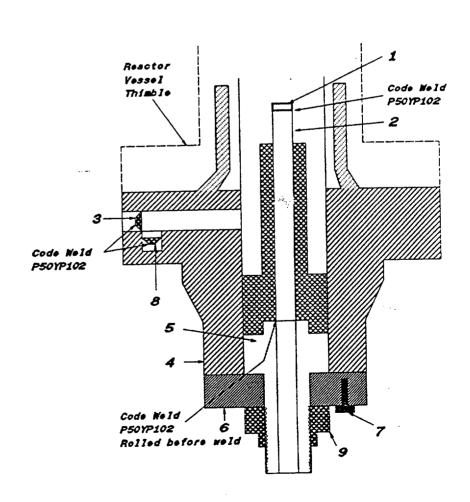
(b) Description of Part Inspected: Piston Tube Assembly

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. (Brief description of service for which component was designed)

Sheet 2 of 2

- 1. Cap 166B9274P001 SA182 - TP316 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113' wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37° thick x 9 5/8° OD
- 5. Head 129B3539P005 SA182 - F304 7/8° thick x 2.875° dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



Date: 06/22/01

Sheet: 1 Of 1
Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A4709	N/A	N/A	1994	•	Yes, Code Class 1

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No A4709. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No A4709. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No A4709.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No A4709 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A4709.

WOT No MHX5 25

EMERGYNORTHWEST

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

	l: Hydrostatic Test Pressure: Psig Component Design		Tes	erating Pressure at Temperature: ° nperature: ° F	
Remarks: None					
		CERTIFICATE (OF COMPLIA	NCE	
			's Report are	correct and this	replacement <i>conforms</i>
	he ASME Code, Se				
	nbol Stamp: Not Appli . uthorization No.: No				
Expiration Date					
	1 1 3/2	001		XIIIA	001
Prepared By	Kuldip Singh - Program L	end Engineer (PLF)	_ Signed By _	Kuldin Singh - Proc	ram Lead Engineer (PLE)
	Circle Shight - Frogram E	.eau Engineer (i EE)	0-4-	4123	2 / V I
Date	6/23/0		_ Date	0,2,	3 0
	CERT	TIFICATE OF IN	SERVICE IN	SPECTION	
I the undersia	ned holding a valid	i commission iss	ued by the N	etional Board of	Boiler and Pressure
Vessel inspecto	ors and the State of	f Washington and	employed by	Factory Mutual In	surance Company of
Johnston, Rhode	Island <i>have inspec</i>	ted the compone	ents describe	d in this Owner's	Report during the
period 4/20	[/// to 7//	0/0/ and	d state to the	best of my know	rledge and belief, the
					n this Owner's Report
	with the requirement	nts of the ASME	Code, Section	N XI. er makes anv wa	rrantv. expressed or
in accordance	ceruncale neilier	the mapector not	i nis employs ive measures	described in thi	- Owner's Penert
By signing this	ning the examinati	ons and correcti			S OWIIEI S NEPUIL
By signing this implied, concer Furthermore, n	rning the examinati either the inspector	r nor his employ	er shall be lia	ble in any mann	er for any personal
By signing this implied, concer Furthermore, n	rning the examinati either the inspector	r nor his employ	er shall be lia	ble in any mann	er for any personal
By signing this implied, concer Furthermore, n	rning the examinati	r nor his employ	er shall be lia	ble in any mann	er for any personal
By signing this implied, concer Furthermore, n	rning the examinati either the inspector	r nor his employ ss of any kind ari	er shall be lia Ising from or	oble in any mann connected with	er for any personal
By signing this implied, concer Furthermore, nainjury or proper	rning the examinati either the Inspecto rty damage or a los	r nor his employ ss of any kind ari	er shall be lia	ble in any mann connected with t	er for any personal this inspection. ーリピールエ 2
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By signing this implied, concer Furthermore, nainjury or proper	rning the examinati either the Inspecto rty damage or a los	r nor his employ ss of any kind ari	er shall be lia Ising from or	ble in any mann connected with t	er for any personal this inspection. ーリピールエ 2

Date: 06/22/01

Sheet: 1 Of 1
Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD)

5. (a) Applicable Construction Code: ASME Section III, Code Class 1 - See Notes For Code Edition, Addenda And Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
CRD	General Electric	A8655	N/A	N/A	1988		Yes, Code Class
							wanter

- 7. Description Of Work Performed: Overhauled Control Rod Drive (CRD) assembly Serial No A8655. The overhaul work was performed in accordance with plant procedure PPM No 10.5.4 "Control Rod Drive Overhaul" as follows:
 - 1) Disassembled Control Rod Drive (CRD) assembly for overhaul See Note 2.
 - 2) Performed liquid penetrant (PT) examination on the existing Cylinder Tube And Flange (CT&F) assembly Serial No A8655. Liquid penetrant (PT) examination results acceptable.
 - 3) Performed VT-3 visual examination on the existing ring flange cap screws. VT-3 visual examination results acceptable.
 - 4) Performed VT-3 visual examination on the existing piston tube nut. VT-3 visual examination results acceptable.
 - 5) Reassembled parts and materials for Control Rod Drive (CRD).

NOTES -

- 1) ASME Section III Code Cases are as listed on the N-2 Code Data Report for the Control Rod Drive (CRD) assembly Serial No A8655.
- 2) ASME pressure boundary (retaining) parts and materials were not replaced during CRD overhaul activities.
- 3) The Control Rod Drive (CRD) assembly Serial No A8655 is certified to comply with ASME Section III, Code Class 1, 1974 Edition with Winter 1975 Addenda.
- 4) The entire Control Rod Drive (CRD) assembly is identified by the Cylinder Tube And Flange (CT&F) Serial No A8655.

WOT No MHX5 28

EMERGYNORTHWEST

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

81	Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure Other None Test Pressure: Psig Test Temperature: ° F Component Design Pressure: Psig Temperature: ° F
9.	Remarks: None
	CERTIFICATE OF COMPLIANCE
	the Court Several and this replacement conforms
	We certify that the statements made in this Owner's Report are correct and this replacement conforms to the rules of the ASME Code, Section XI.
	Type Code Symbol Stamp: Not Applicable
	Certificate Of Authorization No.: Not Applicable
	Expiration Date: Not Applicable
	A Ch O'CL SINGE STANK RIGH
	Prepared By Kuldip Singh - Program Lead Engineer (PLE) Signed By Kuldip Singh - Program Lead Engineer (PLE) Kuldip Singh - Program Lead Engineer (PLE)
	Kuldip Singh - Program Lead Engineer (PLE)
	Date 6 23 01 Date 6 23 01
	,
	CERTIFICATE OF INSERVICE INSPECTION
	I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure
	Vessel Improved and the State of Washington and employed by Factory Mutual Insurance Company of
	Johnston Rhode Island have inspected the components described in this Owner's Report during the
	neried 7/2//0/ to ////// and state 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.
	Injury or property damage or a root or any mind arrows new extensions
	m - To
	M. 400 Commissions 7486 W/ 7486 WL I)
1	Inspector's Signature National Board, State, and Endorsements
	7/10/01
	Date

Date: 06/22/01

Sheet: 1 0f 4

Unit: Not Applicable

EMERGY NORTHWEST

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1. See below for Code Edition, Addenda and Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Control Rod Drive Assemblies Control Rod Drive Assemblies	General Electric (GE) General Electric (GE)	See Below	N/A N/A	N/A N/A	See Below See Below	Replaced CRD Replacement CRD	Yes, Code Class 1 Yes, Code Class 1

- 7. Description Of Work Performed: I) Replaced twenty nine (29) Control Rod Drive (CRD) assemblies. The replacement work was performed in accordance with plant procedure PPM No 10.5.7 " Control Rod Drive Removal And Replacement" as follows:
 - 1) Removed all the existing cap screws from each Control Rod Drive (CRD) assembly bolted flanged connection for all the core locations listed below Eight (8) cap screws for each core location.

2) Removed twenty nine (29) Control Rod Drive (CRD) assemblies.

3) Performed VT-1 visual examination on all the new replacement cap screws. VT-1 visual examination results acceptable.

4) installed replacement Control Rod Drive (CRD) assemblies.

- 5) Installed VT-1 visually examined new replacement cap screws for each Control Rod Drive (CRD) assembly bolted flanged connection for all the core locations listed below Eight (8) cap screws for each core location.
- 6) Torqued the cap screws for the Control Rod Drive (CRD) assemblies bolted flanged connections to the required torque values.
- 7) Performed VT-2 visual examination during pressure test on Control Rod Drive (CRD) assemblies bolted flanged connections to confirm pressure boundary integrity of the joints. Leakage was observed during pressure test and was evaluated to be acceptable.
- II) The above work was also performed on two (2) Control Rod Drive (CRD) assemblies which were removed and reinstalled at the same core location. These two (2) Control Rod Drive (CRD) assemblies which were removed in order to replace the "O" rings due to leakage problem.

WO No MYN6



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS (Back)

A Tests (Conducted: Hydros	static Pne	eumatic No	ominal Operating	Pressure *	Other None
0 /6313 (-	essure: 1022 Psig		•	erature: 215° F	. L
			essure: 1250 Psig	Temperatu		
9 Remai	rks: 1) See attached N-	2 Code Data Repor	rts for the following re			Cylinder Tube And Flange
(CT&F) ass		2 0000 0000 11000			, ,,,	•
Serial No	Serial No	Serial No	Serial No	Serial No	Serial No	Serial No
7305	7299	A9582	A9618	A8745	7084	A9535
A8915	A9663	A9138	6502	A9539	A9482	A9552
7037	A9155	A9531	6543	A9541	6229	A9478
A8740	A9550	A9157	5249	A8460	A9325	A9505
2) * Pressu Section XI	ire test on the CRD bolts pressure test in accorda	ed flanged connection	ons - Test pressure o DSP-RPV-R801 *Rea	f 1022 Psig and test t ctor Pressure Vessel	emperature of 215 ⁰ Leakage Test".	6595 F recorded during ASME
		CE	RTIFICATE OF C	COMPLIANCE		
to the Type Certi	ertify that the state e rules of the ASMI Code Symbol Stat ficate Of Authoriza ration Date: Not Appl	E <i>Code, Section</i> np: Not Applicable tion No.: Not App	n XI.	eport are correct	and this replacer	nent <i>conforms</i>
	arad By	h - Program Lead E	Signeer (PLE)	gned By Kuldip	Singh - Program Lea	ad Engineer (PLE)
Date	6	0/23/01	Da	te	6/23/01	
l, the	e undersigned, hold sel inspectors and	ina a valid con	nmission issued	RVICE INSPECT	Board of Boiler	and Pressure
Johns perio Own in ac By s imple	ston, Rhode Island he of S/J-T/O/ er has performed ecordance with the igning this certificatied, concerning the hermore, neither they or property damage.	ave inspected to 7/0/2 examinations a requirements of the rectangle of the	the components // and st. nd taken correct of the ASME Cod inspector nor his and corrective if r his employer s f any kind arising	described in this ate to the best of ive measures de ie, Section XI. s employer make measures descri hall be liable in a	s Owner's Report my knowledge escribed in this of the sany warranty, t	ert during the and belief, the Owner's Report expressed or er's Report. any personal spection.
Date	1. M. 1 Inspector's S	ignature	Comi	missions <u>7480</u> Natio	nai Board, State, and	d Endorsements

Date: 06/22/01

Sheet: 2 Of 4

Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1. See below for Code Edition, Addenda and Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Control Rod Drive Assemblies Control Rod Drive Assemblies	General Electric (GE) General Electric (GE)	See Below See Below	N/A N/A	N/A N/A	See Below See Below	Replaced CRD Replacement CRD	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed:

Continuation From Sheet 1 of 4

<u>WO*</u> <u>No</u>	<u>Core</u> Loc.	CRD Replaced Serial Number	Code Edition And Addenda	<u>Year</u> Built	CRD Replacement Serial Number	Code Edition And Addenda	<u>Year</u> Built	<u>Code</u> <u>Case</u>
- 6 02	26-52	6792	1971/-	1975	7305	1971/-	1975	Note 2
6 03	26-55	7053	1971/-	1975	A8915	1971/-	1974	Note 2
6 04	34-59	6536	1974/-	1974	7037	1971/-	1975	Note 2
6 05	18-03	7041	1971/-	1975	A8740	1974/W75-	1987	Note 2
606	02-23	7377	1971/-	1975	7299	1971/-	1975	Note 2
6 08	10-23	A8552	1974/W75	1988	A9663	1974/W75	1994	Note 2

NOTES -

- 1) * All the Work Order Task (WOT) numbers are prefixed with "MYN".
- 2) ASME Section III Code Cases for the replacement Control Rod Drive (CRD) [Cylinder Tube And Flange (CT&F)] assemblies are as listed on the attached N-2 Code Data Reports.
- 3) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 12345, Heat (Trace) Code No AT. VT-1 visual examination Report No 2RPV-14.
- 4) New replacement cap screws, SA-540 Gr. B23, Class 4, Heat No 81224, Heat (Trace) Code No Q2. VT-1 visual examination Report No 2RPV-11 (1-99-2-1).

Continued On Sheet 3 of 4



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

Date: 06/22/01 Sheet: 3 Of 4

2. Plant: Columbia Generating Station

Unit: Not Applicable

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1. See below for Code Edition, Addenda and Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda,

Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Control Rod Drive Assemblies	General Electric (GE)	See Below	N/A	N/A	See Below	Replaced CRD	Yes, Code Class 1
Control Rod Drive Assemblies	General Electric (GE)	See Below	N/A	N/A	See Below	Replacement CRD	Yes, Code Class 1

7. Description Of Work Performed:

Continuation From Sheet 2 of 4

<u>₩0*</u>	Core	CRD Replaced	Code Edition	<u>Year</u>	CRD Replacement	Code Edition	<u>Year</u>	<u>Code</u>
<u>No</u>	Loc.	<u>Serial Number</u>	And Addenda	<u>Built</u>	Serial Number	And Addenda	<u>Built</u>	Case
6 09	42-07	Removed, replace	d "O" rings and rein	stalled				
6 10	42-19	7479	1971/-	1975	A9155	1974/W75	1992	Note 2
6 11	30-11	7040	1971/-	1975	A9550	1974/W75	1994	Note 2
6 12	50-35	7166	1974/-	1975	A9582	1974/W75	1994	Note 2
6 13	34-11	A8655	1974/W75	1988	A9138	1974/W75	1993	Note 2
614	26-19	A8577	1974/W75	1988	A9531	1974/W75	1994	Note 2
6 29	22-35	A8461	1974/W75	1988	A9157	1974/W75	1992	Note 2
6 45	06-23	6218	1971/-	1974	A9618	1974/W75	1994	Note 2
6 46	18-27	7078	1971/-	1975	6502	1971/-	1974	Note 2
6 47	26-43	6706	1971/-	1975	6543	1974/-	1974	Note 2
6 48	34-27	6088	1971/-	1974	5349	1971/-	1974	Note 2

NOTES -

¹⁾ See notes on Sheet 2 of 4

Date: 06/22/01

Sheet: 4 Of 4
Unit: Not Applicable



FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS As Required By The Provisions Of The ASME Code Section XI

1. Owner: Energy Northwest

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

2. Plant: Columbia Generating Station

Address: Columbia Generating Station, North Power Plant Loop, Richland, Washington, 99352

3. (a) Work Performed By: Energy Northwest

(b) Repair Organization P.O. No, Job No, etc.: Energy Northwest

(c) Type Code Symbol Stamp: Not Applicable

(d) Certificate Of Authorization No.: Not Applicable

(e) Expiration Date: Not Applicable

4. Identification Of System: Control Rod Drive (CRD) System

5. (a) Applicable Construction Code: ASME Section III, Code Class 1. See below for Code Edition, Addenda and Code Cases

(b) Applicable Edition Of ASME Section XI Utilized For Repairs Or Replacements: 1989 Edition with no Addenda, Code Case: None

6. Identification Of Components Repaired Or Replaced And Replacement Components

Name Of Component	Name Of Manufacturer	Manufacturer's Serial No	National Board No	Other I.D.	Year Built	Repaired, Replaced Or Replacement	ASME Code Stamped (Yes Or No) Code Class
Control Rod Drive Assemblies Control Rod Drive Assemblies	General Electric (GE) General Electric (GE)	See Below	N/A N/A	N/A N/A	See Below See Below	Replaced CRD Replacement CRD	Yes, Code Class 1 Yes, Code Class 1

7. Description Of Work Performed:

Continuation From Sheet 3 of 4

<u>₩0*</u> <u>No</u>	<u>Core</u> Loc.	CRD Replaced Serial Number	Code Edition And Addenda	<u>Year</u> Built	CRD Replacement Serial Number	Code Edition And Addenda	<u>Year</u> Built	<u>Code</u> <u>Case</u>
6 49	34-43	4835	1971/-	1974	A8745	1974/W75	1988	Note 2
6 50	34-51	6660	1971/-	1975	A9539	1974/W75	1994	Note 2
	38-07	6108	1971/-	1974	A9541	1974/W75	1994	Note 2
6 51		7170	1971/-	1975	A8460	1974/W75	1988	Note 2
6 52	10-15		1971/-	1975	7084	1971/-	1975	Note 2
6 53	14-07	6552	1971/-	1974	A9482	1974/W75	1994	Note 2
6 54	14-55	6583	•	1975	6229	1971/-	1975	Note 2
6 55	22-03	6503	1971/-			1974/W75	1995	Note 2
6 56	22-31	7048	1974/-	1974	A9325			
6 57	22-51	5934	1971/-	1975	A9535	1974/W75	1994	Note 2
6 58	30-27	A7168	1971/-	1974	A9552	1974/W75	1994	Note 2
6 59	30-55	A4709	1974/W75	1984	A9539	1974/W75	1994	Note 2
			1974/-	1974	A9505	1974/W75	1994	Note 2
6 60	30-59	6565				1971/-	1975	Note 2
6 61	42-47	5706	1974/-	1974	6595	1971/-	1975	14010 2
6 90	14-15	Removed, replace	ed "O" rings and reir	nstalled				

NOTES -

1) See notes on Sheet 2 of 4

FORM N-2 MANU' CTURERS DATA REPORT FOR NUCLE PART AND APPURTENANCES

An required by the traviations of the ASME Code Rules Parlang Rock	
l. (a) Manufactured by General Electric Company, Castle Hayne Rd., Wilmington, N. C. (Name and address of Manufacturer of part)	2:
(Name and address of Manufacturer of part)	·· -
(b) Manufactured for General Electric Company, San Jose, California	
(Name and address of Manufacturer of completed nuclear component)	
2. Identification-Manufacturer's Serial No. of Part 7305 Nat'l Bd. No	
(a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson	
(b) Description of Part Inspected Control Rod Drive, Model #7RDB144 Cl	
(c) Applicable ASME Code: Section III, Edition 1971, Addonda date None, Case No. 1361-1 Class 1	
3. Remarket Standard part for use with Reactor. Hydrostatically tested at 1820 psi	
(Brief description of service for which component was designed)	
minimum.	
We certify that the atsiements made in this report are correct and this vessel part or appurtenance as defined in the Code forms to the rules of construction of the ASME Code Section III. (The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtent Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not include the component Design Specification and Stress Report.)	
1-1-21 75 27 1-1-21	:
Vate July 31 19 75 Signed GE, BWRSD - REM (Measulacturer) (Measulacturer)	
Certificate of Authorization Expires June 20, 1978 Certificate of Authorization No. NPT - 462	
CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)	
Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington	
Stress snalysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmingt	- 1
Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 1448	8
Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 1448	8
CERTIFICATE OF SHOP INSPECTION	司
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors	
and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina bare inspectors	
Manufactured Barriel Barriel Barriel July 31	
and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.	
Date	
Commissions NC 723, PA NC 1766 Obto	•
Inspector's Signature Commissions NC 723 PA 17C 1766 Oh10 National Board, State, Province and No.	i

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l. Shell: M	Long	T.S.	inner char lin. of Rongo H.T. ¹	mbers of ju Nominal Thickness Specified)	Corin, Allo	meios mence in	Efficiency	ia. Length	fci %
. Shell: M	Long	T.S.	inner char lin. of Rongo H.T. ¹	mbers of ju Nominal Thickness Specified)	Corin, Allo	meios	Efficiency  No. of Course	in. Length	fti %
2. Seams:	Long Girth Location	T.S.	in, of Rongo  H.T.  Crown Redist	nbers of ja Nominal Thickness Specified)  T.S.  Enuckies	Corin. Allo	maios mance in	Efficiency  No. of Course	in. Length	ft
2. Seams:	Long Girth Location	Thickness	inner char lin, of Rongo H.T. H.T. Crown	Nominal Thickness Specified)  T.S.  Rouckless Rediss	Corin. Allo	meios	Efficiency  No. of Course	in. Length	ft
2. Seams: 3. Heads (	Long Girth (a) Material _ Location , bottom, end	T.S. pee. No.) (M	in, of Rongo  H.T.  Crown Radius	mbers of ja Nominal Thickness Specified)  T.S.  Enuckies Radius	R.TR.TRatio	meios presidente de la contra la contra la contra la Apez Ang	Efficiency  No. of Course rist  Hemispheric Redius	in. Length  T.S.  Tist  Diameter	Side to Pres
2. Seams: 3. Heads (	Long Girth (a) Material _ Location , bottom, end	T.S. pee. No.) (M	in, of Rongo  H.T.  Crown Radius	mbers of ja Nominal Thickness Specified)  T.S.  Enuckies Radius	R.TR.TRatio	meios presidente de la contra la contra la contra la Apez Ang	Efficiency  No. of Course rist  Hemispheric Redius  Other fastenin	in. Length  esT.S  rel Flat Diameter  (Describe of	Side to Pres (Conv. or Conv.
2. Seams: 3. Heads (	Long  Girth  a) Material _  Location , bottom, end	T.S. pee. No.) (M	in, of Rongo  H.T.  Crown Radius	mbers of ja  Nominal Thickness Specified)  T.S.  Rauckles Radius	R.TR.TRatio	meios presidente de la contra la contra la contra la Apez Ang	Efficiency  No. of Course rist  Hemispheric Redius  Other fastenin	in. Length  esT.S  rel Flat Diameter  (Describe of	Side to Pres (Conv. or Conv.
2. Seams: 3. Heads (	Long Girth (a) Material _ Location , bottom, end	T.S. pee. No.) (M	in, of Rongo  H.T.  Crown Radius	Mominal Thickness Specified)  T.S.  Knuckie Radius	R.TR.T	meios presidente de la contra la contra la contra la Apez Ang	. Diaft Efficiency No. of Cours rial le Redius _ Other fastenin Ch	in. Lengthin. Length	Side to Pres (Conv. or Conv. o
2. Seams: 3. Heads (  (a) Top. (b) Charlif remove	Girth	T.S. pee. No.) (M	in, of Rongo  H.T.  Crown Radius	Mominal Thickness Specified)  T.S.  Knuckie Radius	Corin. Allo	meios presidente de la contra la contra la contra la Apez Ang	. Diaft Efficiency No. of Cours rial le Redius _ Other fastenin Ch	in. Length  esT.S  rel Flat Diameter  (Describe of	Side to Pres (Conv. or Conv. o
1. Shell: M 2. Seams: 3. Heads ( (a) Top., (b) Char If remov	Girth Lesstien bottom, end anel pressure pressure pressure pressure contents and contents	Thickness	in, of Rongo  H.T.  Crown Redies	mbers of ja  Nominal Thickness Specified)  T.S.  Enuckies Radius	R.T	meios presidente de la contra la contra la contra la Apez Ang	. Diaft Efficiency No. of Cours rial le Redius _ Other fastenin Ch	in. Lengthin. Length	Side to Pres (Conv. or Conv. o
3. Heads ( (a) Top., (b) Charlef remove	Girth Lesstien bottom, end anel pressure pressure pressure pressure contents and contents	Thickness	in, of Rongo  H.T.  Crown Redies	mbers of ja  Nominal Thickness Specified)  T.S.  Enuckies Radius	R.T	meios presidente de la contra la contra la contra la Apez Ang	No. of Course Redius  Other fastenin  Or at	in. Lengthin. Length	Side to Pres (Conv. or Conv. o
3. Heads ( (a) Top, (b) Char If remov	Girth	Thickness as a seed (a)	inner char lin, of Range H.T.  Crown Radius	T.S.  Knuckite Radius  (b)	R.T	meios  pwancein  (b) Mater  Conical  Apez Ang	No. of Course Redius  Other fastenin  Or at	in. Lengthin. Length	Side to Pres (Conv. or Conv. o
3. Heads ( (a) Top, (b) Char If remov	Girth	Thickness as a seed (a)	inner char lin, of Range H.T.  Crown Radius	T.S.  Knuckite Radius  (b)	R.T	meios presidente de la contra la contra la contra la Apez Ang	. Diaft Efficiency No. of Cours rial le Redius _ Other fastenin Ch	in. Lengthin. Length	Side to Pres (Conv. or Conv. o
. Shell: M. Seams:  3. Heads (  (a) Top. (b) Charlif remov  4. Design  tems below	Girth  Location  bottom, end  and  pressure  to be compi	Thickness as a seed (a)	inner char lin, of Range H.T.  Crown Radius	T.S.  Knuckite Radius  (b)	R.T	meios  pwancein  (b) Mater  Conical  Apez Ang	No. of Course Redius  Other fastenin  Or at	in. Length  T.S.  T.S.  (Describe of price of pr	Side to Pres (Conv. or Conv. o
3. Heads ( (a) Top., (b) Charlet removes 4. Design tems below	Girth	Thickness as a seed (a)	inner char lin. of Renge H.T. H.T. Crown Redies	mbers of ja  Nominal Thickness Specified)  T.S.  Rauckles  (b)  ps  here applie	R.T	(b) Mater  Content  Apez Ang	No. of Course Redius  Other fastenin  Or at	in. Lengthin. Length	Side to Pres (Conv. or Conv. o
3. Heads ( (a) Top, (b) Char If remov 4. Design tems below 13. Safety 16. Nozzie:	Girth  Location  bottom, end  and  pressure  to be compi	Thickness as a seed (a)	inner char lin, of Range H.T.  Crown Radius	mbers of ja  Nominal Thickness Specified)  T.S.  Rauckles  (b)  ps  here applie	R.T	meios  pwancein  (b) Mater  Conical  Apez Ang	No. of Course Redius  Other fastenin  Or at	in. Length  T.S.  Tal Fist Diameter  (Describe of party Impact temp. of	Side to Pres (Conv. or Cor
3. Heads ( (a) Top, (b) Char If remov 4. Design tems below 13. Safety 16. Nozzie:	Long	Thickness as a Number	inner char lin. of Renge H.T. H.T. Crown Redies	mbers of ja  Nominal Thickness Specified)  T.S.  Rauckles  (b)  ps  here applie	R.T	(b) Mater  Content  Apez Ang	No. of Course Redius  Other fastenin  Or at	in. Length  T.S.  Tal Flat  Diameter  (Describe of party Impact temp. of	Side to Pres (Conv. or Cor
1. Shell: M 2. Seams: 3. Heads ( (a) Top, (b) Char If remov 14. Design tems below 15. Safety 16. Nozzie: Purpee	Long	Thickness as a Number	inner char lin. of Renge H.T. H.T. Crown Redies	mbers of ja  Nominal Thickness Specified)  T.S.  Rauckles  (b)  ps  here applie	R.T	(b) Mater  Content  Apez Ang	Efficiency  No. of Course rial  Hemispheric Redius  Other fastenin  Or at  Thickness	in. Length  T.S.  T.S.  Time Diameter  (Describe of pweight arpy Impact temp. of temp. of temp. of temp. Material	Side to Pres (Conv. or Con r ettach sketch)
1. Shell: M 2. Seams: 3. Heads (  (a) Top, (b) Chas If remov  14. Design  tems below  15. Safety  16. Nozzie:  Purpes Outlet,	Long	Thickness  Thickness	inn of Rongo  In. of Rongo  H.T.  Crown Radius  Vessels w	mbers of ja  Nominal Thickness Specified)  T.S.  Rauckie Radius  (b)  ps  here applie	R.T	(b) Material  Location  Material	Efficiency  No. of Course risk  Hemispheris Redius  Other fastenin  Or at  Thickness	in. Length  T.S.  T.S.  (Describe of pweight arpy impact temp. of	Side to Pres (Conv. or Conv. o
A. Shell: M.  C. Seams:  A. Heads (  (a) Top. (b) Chass If remove  4. Design  tems below  15. Safety  16. Nozzie:  Purpos Outlet,	Girth  Girth  Location  bottom, end  and  rable, boits  to be compi  Valve Outlet  st  e (Inlet, Drain)	Thickness as Number	inner char lin. of Renge H.T. H.T. Crown Redist	mbers of ja  Nominal Thickness Specified)  T.S.  Rnuckie Redius  (b)  ps  here applie  Size  Size	R.T	Conical Apex Ang	No. of Course rial Hemispheric Redius  Other fastenin Chestenin Ch	in. Length  T.S.  T.S.  Time Diameter  (Describe of pweight arpy Impact temp. of temp. of temp. Material	Side to Pres (Conv. or Con r ettach sketch)
1. Shell: M 2. Seams: 3. Heads ( (a) Top, (b) Chas If remov  14. Design  items below  15. Safety  16. Nozzie:  Purpee Outlet,	Girch	Thickness  Thickness	in, of Rongo  In, of Rongo  H.T.  Crown Redist	mbers of ja  Nominal Thickness Specified)  T.S.  Enuckie Radius  (b)  ps  here applie  Size  Size	Cor_in. Allo  R.T  R.T  R.T  Siliptica  Zatio  (c)  i at  cable.	Conical Apex Ang	Efficiency  No. of Course risk  Hemispheric Redius  Other fastenin  Or at	in. Length  T.S.  T.S.  Time Diameter  (Describe of pweight arpy Impact temp. of temp. of temp. Material	Side to Pres (Conv. or Con r ettach sketch)

# FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

· •	(4) 上ろして Manufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)
	2117 Castle Hayne Road, Wilmington, North Carolina 28401
	( Name and Address of NPT Certificate Holder )
	(b) Manufactured for : WNP 2 Richland, Washington 99352  ( Name and Address of N Certificate Holder for completed nuclear component )
2.	Identification - Certificate Holder's S/N of Part : A8915 Nat'l Bd. No. N/A
	(a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson
	(b) Description of Part Inspected: <u>Cylinder Tube &amp; Flange</u>
	(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
3.	REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.
	( Brief description of service for which component was designed )
	Sheet 1 of 2
_	
	the component Design Specification and Stress Report ).  Date: 10/23/91 Signed GE - NEBG - NF & CM - QA (NPT Certificate Holder )  (NPT Certificate Holder )
. • ⁻	Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPTN - 1151
	Certification of Design for Appurtenance
	Design information on file at <u>GE Company. San Jose, California</u>
	Stress analysis report on file atGE Company, San Jose, California
	DC22A6253 Rev. 1 Design specification certified by <u>Biorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
	Certification of Shop Inspection
	I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.  By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied,

supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is  $8-1/2^n \times 11^n$ , (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or

NC 1231, Ohio, WC 3686 PA National Board, State, Province And No.

p or were

Inspector's Signature

Quone

connected with this inspection.

Daté

#### FORM N-2 ( back )

Ite	ems 4-8	incl. to be co	mpleted for si	ngle wall ve	essels, jacket	s vessels, or	shells of heat	exchangers.	
4.	Shell:	Material (Kind & S	T.S. Spec. No. ) (Min. of Reu	Nominal Thickness ige Specified)	Co s in. Al	rrosion lowance	in. Dia ft	in. Length	ft in.
5.	Seams:	Long		н.т. 1		R.T.		Efficiency _	¥
		Girth		1				No. of Course	
6.	Heads:							T.S	
		on ( Top	Crown		Elliptical	Concial			
(a) (b)	Bottom,	Ends ) Thi	ckness Radiu	s Radius	Ratio	Apex Angle		Flat Side Diameter (co	to Press. nv. or conc. )
	If remo	vable, bolts		ial, Spec. No., T.S	Size Number	Other faste	ning		
7.	Jacket	Closure:			<u> </u>			Describe or attach sketch )	
		•	(1	Jeschbe as ogee s	and weld, bar, etc. If I	bar give dimensions,		h) eight Impact	ft-1b
8.	Design	pressure	1250	ps	i at	575	F at∙tem	p of	° F
Ite	ms 9 and	10 to be com	pleted for tube	sections					
9.	Tube Sh	eets: Statio	nary. Materia	(Kind & Sc	Dia	( Subject to present	Thickness	in. Attachme	(Welded, Solled)
		Floati						in. Attachme	
0.	Tubes:	Material		O.D	in. Thic	kness	_ inches or gage. N	umber	Туре
īte	me 11 -	14 inol to b	a sempleted for	·					(Str. or U)
	112 11	14 INC 1. LO D	e completed for	· · · · · · · · · · · · · · · · · · ·			or channels of h	eat exchangers.	
1.	Shell:	Material(Kind & S	T.S. pec. No. ) (Min. of Ren	Nominal Thickness ge Specified)	in. A1	rrosion lowance	in. Dia ft	in. Length	ft in.
2.	Seams:	Long				R.T.		Efficiency	%
		Girth		н.т.		R.T.		No. of Course	es
3.	Heads:							T.S	
(a)	Loca Top.bot	tion Thic	Crown ckness Radius	Knuck le	Elliptical Ratio	Concial	Hemispherical		to Press.
(0)	Channel If remo	vable, bolts	used (a)	(b)	(c)	Other	fastening		
						-	Drop W	( Describe or atta eight Impact	ch sketch )
4.	Design :	2 Dressure			nei at		o Fat tem	·	F
_			ed for all ves				rat tem		<u> </u>
			Number			<del></del>			
					51ZE _		Locatio	on	
ο.	nozz ies:	Purpose (Inlet, Outlet, Drain)	Number	Dia. or Size	Туре	Material	Thickness	Reinforcement Material	How Attached
7.	Inspect Openings		, No		Size Size Size		ocation		
3.	Supports		Lugs	(Number)	Legs	Ot Number)	her (Describe)	Attached	(Where & How)

^{1 -} If Postweid Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

## FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div., I Build Sugi

6123101

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (	GE NF & CM)
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#### 2117 Castle Hayne Road, Wilmington, North Carolina 28401

( Name and Address of NPT Certificate Holder )

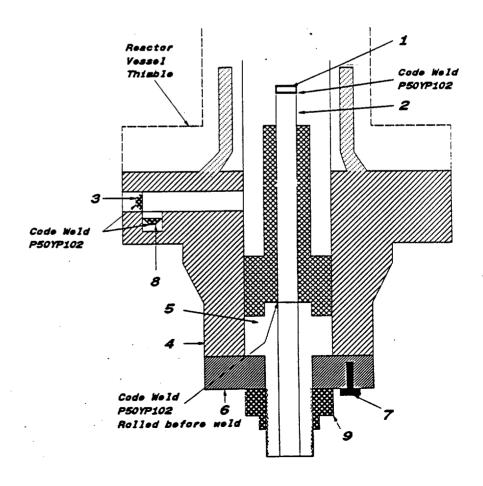
(b) Manufactured for :	WNP 2	Richland, Washington	n 99352	
	( Name and	Address of N Certificate	Holder for completed nuclear	component )

- 2. Identification Certificate Holder's S/N of Part : A8915 Nat'l Bd. No. N/A
  - (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson
  - (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
  - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. N207 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

  ( Brief description of service for which component was designed )

Sheet 2 of 2

- 1. Cap 166B9274P001 SA182 - F304 3/8" thick x 1 1/16" OD
- Indicator Tube 166B9313P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Fiange 919D610P001 (719E474) SA182 - F304 3.37* thick x 9 5/8* OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002, P003 137C8151P001, P002 SA182 - F304 1* thick x 5.0* OD x 1.75* ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2° dia. on 4 1/8° bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30° thick x 2.62° dia.



# FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES.

_	required by the Provisions of the ASME Code Rules 124 (24 (2)
-	Contain Sing by
ı.	THE PERSON OF TH
	UNDER BOOK ACCIONATION OF THE PROPERTY OF THE
•	(b) Manufactured for General Electric Company, San Jose, California
2	(Name and address of Manufactures of completed nuclear component)
٤,	Identification-Manufacturer's Setial No. of Part
	(a) Constructed Asserting to Day 1 12 761839709
	(a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson
	(b) Description of Part Inspected Control Rod Drive, Model #7RDB144 Cl
	(c) Applicable ASME Code: Section III, Edition 1971, Addenda date None, Case No. 1361-1 Class 1
_	Case No. 1301-1 Class 1
3.	Remarks: Standard part for use with Reactor. Hydrostatically tested at 1820 psi
	(Brief description of service for which component was designed)
	MINITERIOR 6
	CON VISIONAL AND VISIONAL CONTRACTOR OF CONT
	The season of th
fon	We certify that the statements made in this report are correct and this vessel part or appartenance as defined in the Code con-
(Th	e applicable Design Specification and Stress Report are not the responsibility of the new Months
in I	ns to the rules of construction of the ASME Code Section III.  e applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance interesting a separate Design Specification and Stress Report if the appurtenance is not included the component Design Specification and Stress Report.)
Dat	e July 31 1975 Signed GE, BWRSD - REM
	Manufacture
Cèt	tificate of Authorization Expires June 20, 1978 Certificate of Authorization No. NPT - 462
_	
	CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)
_	Committee (Water applicable)
E	Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington
3	trees analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington
-	esign specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488
S	Prese analysis was a still to Vorman II Day
	Prof. Eng. State Calif. Reg. No. 14488
	CERTIFICATE OF SUOP INSPECT
	CERTIFICATE OF SHOP INSPECTION
	I, the undersigned, holding a valid commission issued by the value of
*	I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors
0	State of North Carolina and employed by Separtment of Labor
Mi	nufacturer's Partial Data Report on July 31
-	By signing this confidence animated this part in accordance with the ASME Code Section IV
10	t the next described is this Manual and the standard of the last the next described in the last the standard of the standard of the last the standard of the standard of the last the standard of the
wi	all be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected
	and any stant attend of connected
Da	July 31 19 75
	£ 000 101
	C. Sherreli
	Inspector's Signature Commissions NC 723 PA LTC 1766 Ohio National Board, State, Province and No.
	rectangle Board, State, Province and No.

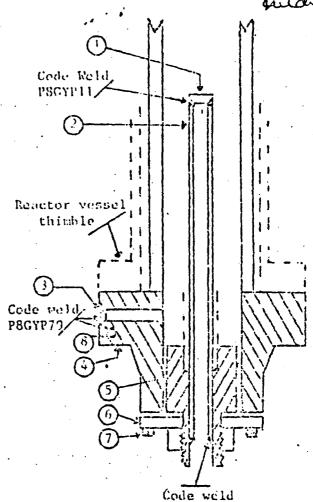
#### FORM N-2 (back)

s 4-8 Incl. to be comp	leted for sim	tie murr in			!			
shell: Material	~ c	No Th	minel ickness	in. Allows	ion incein. I	Dia ft	_in. Length	fc in.
shell: Maccriul (Kind & Sp	1.5. Min.	of Range Sp	pecified)			•		
(Kind & Sp		~ 1	_	R.T	<u>.:</u> 1	Efficiency		%
Seams: LON								•
Gin ₄	•	<b>~1</b> .	•	R.T		No. of Cours	es	
Girty Heads: (a) Material	n.	. 4	T C		(b) Materia	d	T.S	
Heads: (a) Material			_ 1 .0	Elilotical	Conical	Hemispheric	al Flat	Side to Press. (Conv. or Conc.)
Location (Top, bottom, ends)		Radius	Knuskle Radius	Retio	Apex Angle	Radius	Diameter	Conv. or conc.,
(a)								
(b)					Other fast	ening		
If removable, bolts us	red	riel. Spec. I	No., T.S., SI	ze, Number)		Ū	(Describe or attac	W Rescout
			•		٠			
Jacket Closures (Deace	150 00 00 00 00 00 00 00 00 00 00 00 00 0	weld, ber.	ete. If bar gi	ve dimensions,	# bolted, descr	ibs or sketch)	op Weight	<del>.</del>
(Desci				•		רא	op weight	ft-lb
	050			575 [%]	ř.	or at	temp. of	°F
Design pressure ²	250		Pai	et		·	_	
					1323	S. Belline	ក្រុក្សា ក្រុក្សា	<u> </u>
ns 9 and 10 to be com	pleted for tul	be section:	s			1	n. Attachment	ings .
			.1,				n Arrachment	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Tube Sheets: Station	ary. Material			)ia		CKU623 11		(Welded, Bolted)
Floati Tubes: Material	ne. Materia	l	1	Di <b>s.</b>	Thi	ickness	n. Attachment_ Typ	
— t thereid		O.D.	in. 7	Thickness	or Est	. Number	туг	(Str. or U)
Tubes: Material			•		•	·	<u> </u>	
at the Manager	T.S.		Nominal Thickness	Corr Lin. Allo	rosion 'in	. Diaft	ia. Length	1i
, Shell: Material(Kind &	T.S. Spec. No.) (M	in, of Range	Nominal Thickness Specified)	Corr in. Allo	rosion '	. Disft Efficiency	in. Length	<b>%</b>
. Shell: Material(Kind &	T.S. Spec. No.) (M	in, of Range	Nominal Thickness Specified)	Corr in. Allo	mesod in	Efficiency No. of Co	in. Length	%
Shell: Material (Kind & Const.)  Seams: Long Girth Girth	T.S. Spec. No.) (M	in, of Range	Nominal Thickness Specified)	in. Allo	mesod in	Efficiency No. of Co	in. Length	%
Shell: Material (Kind &	T.S. Spec. No.) (M	in, of Range	Nominal Thickness Specified)	in. Allo	owencein	Efficiency No. of Corrigi	ursesT.S.	%
. Shell: Material (Kind b)  . Seams: Long  Girth  . Heads (a) Material  Location	T.S. Speq. No.) (M	in. of Range H.T.1  H.T.1  Crown	Nominal Thickness Specified)  T.S.  Radiu	R.T.	owanceininininininini	Efficiency No. of Corrish	ursesT.S.	% Side to Press
Shell: Material (Kind b) Seams: Long Girth Heads (a) Material	T.S. Speq. No.) (M	in. of Range H.T.1  H.T.1  Crown	Nominal Thickness Specified)  T.S.  Radiu	R.T.	(b) Mater	Efficiency No. of Corrish	ursesT.S.	% Side to Press
Girth Location (a) Top, bottom, en	T.S. Speq. No.) (M	in. of Range H.T.¹  H.T.¹  Crown se Radiu	Nominal Thickness Specified)  T.S.  Radiu	R.TR.T	(b) Mater  I Cénical Apex Angl	Efficiency  No. of Corrial  Hemisphelie Radiu	ursesT.S	Side to Press
Girth Location (a) Top, bottom, en	T.S. Speq. No.) (M	in. of Range H.T.¹  H.T.¹  Crown se Radiu	Nominal Thickness Specified)  T.S.  Radiu	R.TR.T	(b) Mater  I Cénical Apex Angl	Efficiency No. of Corrisi Hemisphe Radiu Other fasten	ursesT.S	Side to Press r (Conv. or Conc
Girth Location (a) Top, bottom, er	T.S. Speq. No.) (M	in. of Range H.T.¹  H.T.¹  Crown se Radiu	Nominal Thickness Bpecifisc)  T.S.  Radiu  (b)	R.T	(b) Mater  I Cénical Apex Angl	Efficiency No. of Corrisi Hemisphe Radiu Other fasten	urses	Side to Press r (Conv. or Conc or attach sketch)
Girth Location (a) Top, bottom, en	T.S. Speq. No.) (M	in. of Range H.T.¹  H.T.¹  Crown se Radiu	Nominal Thickness Bpecifisc)  T.S.  Radiu  (b)	R.TR.T	(b) Mater  I Cénical Apex Angl	Efficiency  No. of Corrisi  Hemisphe Radiu  Other fasten	ursesT.S  prical Fist Diamete  (Describe of Drop Weight Charpy Impact	Side to Press r (Conv. or Conc or attach sketch)
Girth Location (a) Top, bottom, en (b) Channel If removable, bolts	T.S. Speq. No.) (M	in. of Range H.T.¹  H.T.¹  Crown se Radiu	Nominal Thickness Specified)  T.S n	R.T	(b) Mater  I Cénical Apex Angl	Efficiency  No. of Corrisi  Hemisphe Radiu  Other fasten	urses	Side to Press r (Conv. or Cond or attach sketch)
Girth Location (a) Top, bottom, en (b) Channel If removable, bolts	T.S. Speq. No.) (M	in. of Range H.T.¹  H.T.¹  Crown se Radiu	Nominal Thickness Specified)  T.S n	R.T	(b) Mater  I Cénical Apex Angl	Efficiency  No. of Corrisi  Hemisphe Radiu  Other fasten	ursesT.S  prical Fist Diamete  (Describe of Drop Weight Charpy Impact	Side to Press r (Conv. or Cond or attach sketch)
Girth  Girth  Location  (a) Top, bottom, er  (b) Channel  If removable, bolts  4. Design pressure ²	T.S. Spec. No.) (M	H.T.1  Crown	Nominal Thickness Specifisc)  T.S  Ruck Radiu  (b)	R.T	(b) Mater  I Cénical Apex Angl	Efficiency  No. of Corrisi  Hemisphe Radiu  Other fasten	ursesT.S  prical Fist Diamete  (Describe of Drop Weight Charpy Impact	Side to Press r (Conv. or Conc or attach sketch)
Girth  Girth  Location  (a) Top, bottom, er  (b) Channel  If removable, bolts  4. Design pressure ²	T.S. Spec. No.) (M	H.T.1  Crown	Nominal Thickness Specifisc)  T.S  Ruck Radiu  (b)	R.T	(b) Mater  I Cénical Apex Angl	Efficiency  No. of Corrisi  Hemisphe Radiu  Other fasten	ursesT.S  prical Fist Diamete  (Describe of Drop Weight Charpy Impact	Side to Press r (Conv. or Conc or attach sketch)
Girth  Girth  Continu  Girth  Continu  Girth  Continu  Girth  Location  (a) Top, bottom, en  (b) Channel  If removable, bolts  Location  (continu  Continu	T.S. Spec. No.) (M	in. of Range H.T.  H.T.  Crown Radiu	Nominal Thickness Specified)  T.S.  Radiu  (b)  p where appli	R.T	(b) Mater  I Cénical Apex Angl	Efficiency  No. of Corrisi  Hemisphe Radiu  Other fasten	ursesT.S  prical Fist Diamete  (Describe of Drop Weight Charpy Impact	Side to Press r (Conv. or Conc or attach sketch)
Girth  Girth  Continu  Girth  Continu  Girth  Continu  Girth  Location  (a) Top, bottom, en  (b) Channel  If removable, bolts  Location  (continu  Continu	T.S. Spec. No.) (M	in. of Range H.T.  H.T.  Crown Radiu	Nominal Thickness Specified)  T.S.  Radiu  (b)  p where appli	R.T	(b) Mater  Conical Apex Angl	Efficiency  No. of Corrisi  Hemisphe Radiu  Other fasten	ursesT.S  prical Fist Diamete  (Describe of Drop Weight Charpy Impact	Side to Press r (Conv. or Conc or attach sketch)
Girth  Girth  Location  (a) Top, bottom, en  (b) Channel  If removable, bolts  A. Design pressure ² tems below to be com	T.S. Spec. No.) (M	in. of Range H.T.  H.T.  Crown Radiu	Nominal Thickness Specified)  T.S.  Radiu  (b)  p where appli	R.T	(b) Mater  Conical Apex Angl	Efficiency  No. of Corrisi  Hemisphe Radiu  Other fasten	T.S.  Tr.S.  Tr.	Side to Press r (Conv. or Conc or attach sketch)
Girth	T.S. Spec. No.) (Market Number Spec. No.) (Market Number Spec. No.) (Market Number Spec. Number	in. of Range H.T.  H.T.  Crown Radiu	Nominal Thickness Specified)  T.S n	R.T	(b) Mater  Conical Apex Angl	Efficiency  No. of Corrisi  Hemisphe Radiu  Other fasten	T.S  prical Fist Diamete  (Describe Charpy Impact at temp. of	Side to Press r (Conv. or Conc or attach sketch)
Girth  Girth  Location  (a) Top, bottom, en  (b) Channel  If removable, bolts  4. Design pressure ² tems below to be com	T.S. Spec. No.) (M	in. of Range H.T.  H.T.  Crown Radiu	Nominal Thickness Specified)  T.S n	R.T	(b) Mater  Conical Apex Angl	No. of Corrial  Hemisphelie Radiu  Other fasten	T.S.  Tr.S.  Tr.	Side to Press r (Conv. or Conc or attach sketch)
Girth Girth Girth Location (a) Top, bottom, en (b) Channel If removable, bolts  tems below to be com  Safety Valve Outle Nozziest Purpose (Inlet,	T.S. Spec. No.) (Market Number Spec. No.) (Market Number Spec. No.) (Market Number Spec. Number	in. of Range H.T.  H.T.  Crown Radiu	Nominal Thickness Specified)  T.S n	R.T	(b) Mater  Conical Apex Angl	No. of Corrial  Hemisphelie Radiu  Other fasten	T.S.  Tr.S.  Tr.	Side to Press r (Conv. or Conv. or attach sketch)
Girth	T.S. Spec. No.) (Market Number Spec. No.) (Market Number Spec. No.) (Market Number Spec. Number	in. of Range H.T.  H.T.  Crown Radiu	Nominal Thickness Specified)  T.S n	R.T	(b) Mater  Conical Apex Angl	No. of Corrial  Hemisphelie Radiu  Other fasten	T.S.  Tr.S.  Tr.	Side to Press r (Conv. or Conc or attach sketch)
Girth Girth Coastion (a) Top, bottom, es (b) Channel If removable, bolts  tems below to be com  Safety Valve Outle Purpose (Inlet, Outlet, Drain)	T.S. Spec. No.) (Market Number Number	in. of Range H.T.  Crown se Radiu vessels	Nominal Thickness Specified)  T.S.  Radiu  (b)  P  where appli  Size	R.T	(b) Mater il Conical Apex Angl	No. of Corrisi  Hemisphele Radiu  Other fasten	T.S  T.S  Trical Fist Diamete  (Describe Drop Weight Charpy Impact at temp. of  Reinforcement Material	Side to Press r (Conv. or Conc or attach sketch)
Girth  Girth  Coastion  (a) Top, bottom, es  (b) Channel  If removable, bolts  Least valve Outle  Nozzlest  Purpose (Inlet, Outlet, Drain)	T.S. Spec. No.) (Market Number Number	in. of Range H.T.  H.T.  Crown se Radiu  vessels	Nominal Thickness Specified)  T.S.  Radiu  (b)  Size  Size	R.T		L. DisftEfficiencyNo. of CorrisiHemisphe ie RadiuOther fastenOF	T.S  T.S  Tr.S  Tr.S.	Side to Press r (Conv. or Conc or attach sketch)
Girth  Girth  C. Seams: Long  Girth  C. Seams: Long  Girth  Location  (a) Top, bottom, en  (b) Channel  If removable, bolts  Lems below to be com  Safety Valve Outle  Nozzlest  Purpose (Inlet, Outlet, Drain)	T.S. Spec. No.) (Market Number Number	in. of Range H.T.  H.T.  Crown se Radiu  vessels	Nominal Thickness Specified)  T.S.  Radiu  (b)  Size  Size	R.T		L. DisftEfficiencyNo. of CorrisiHemisphe ie RadiuOther fastenOF	T.S  T.S  Tr.S  Tr.S.	Side to Press r (Conv. or Conc or attach sketch)  [to
Girth  Contion  (a) Top, bottom, en  (b) Channel  If removable, bolts  Least valve Outle  Nozziest  Purpose (Iniet, Outlet, Drain)  17. Inspection Manh	T.S. Spec. No.) (Management of the special spe	in. of Range H.T.  H.T.  Crown Radiu  vessels	Nominal Thickness Specified)  T.S n	R.T	Location	L. DisftEfficiencyNo. of CorrisiHemisphe ie RadiuOther fastenOF	T.S  T.S  Trical Fist Diamete  (Describe Drop Weight Charpy Impact at temp. of  Reinforcement Material	Side to Press r (Conv. or Conc or attach sketch)  [to

SIN 7037

- 1. Cop 167A2343P1 (167A2343)
- ) SA182-F304 3/8 thick x 1 1/16 OD
- Indicator Tube 104B1336P1 \$A312-TP316
   3/4 sch 40-scamless pipe
   0.113 wall thickness
   1.065 max. dia.
- 3. Plug 159A1176P1 SA182-F304 1/4 thick x 0.812 OD
- Flange 919D610P1 (719E474)
  SA132-F304
  3.37 thick x 9 5/8 0D
  neck 1 1/16 thick x 5.0 0D
  2.875 ID
- 5. Head 129B3539P1 SA182-F304 7/8 thick x 2.875 Dia.
- 6. Ring Flange 114E5122P2

  SA182-F304
  1" thick x 5.0 OD x 1.75 ID
- 7. Cap Screw 117C4516P2SA193-566 ea. 1/2 dia. on 4 1/8 bolt circle
- 8. Plug 175A7961P1 SA182-F3040.38 thick x 1.307 dia.



ATTACAMENT TO FORM N-2 MANUFACTURER'S DATA REPORT racyp7

Rolled before weld

Kuldip Sups.

FORM H-2 MPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTMENTERS* 6026

As required by the Provision of the ASME Code Rules, Section III, Div. 1

AS required by the Provision of the Asse one Rules, section 111, 111.
1. Manufactured & Certified by: GE Company, 2117 Castle Hayne Rd., Wilmington, N.C. 28402  (Name and Acdress of NPT Certificate Holder)  (b) Manufactured for: WNP-2, RICHLAND, Wa. 99352  (Name and Address of N Certificate Holder for completed nuclear component)
•
2. Identification-Certificate Holders's S/N of Part: A8740 Nat'l Bd. No. N/A
(a) Constructed According to Drawing No: 919D258G003 Dwg. Prepared by D. L. Peterson
(b) Description of Part Inspected: CYLINDER TUBE & FLANGE
(c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75 Case No. 1361-2 Class 1
3. REMARKS: Sub-assembly of Control Rod Drive for use with reactor.  (Brief description of service for which component was designed)  Everostatically tested at 1825 psi. min.
*Sheet 1 of 2
We certify that the statements in this report are correct and this wessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NFT Certificate Holder for parts. An NFT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).  [NPT Certificate Holder]  [NPT Certificate Holder]  Certificate Of Authorization Expires: 6/16/90 Certification of Authorization No.: NPT N-1151
CERTIFICATION OF DESIGN FOR APPURTMENTS
Design information on file atGE COMPANY, SAN JOSE, CALIFORNIA
Stress analysis report on file at GE COMPANY, SAN JOSE, CALIFORNIA  DC22A6253 Rev. 0  Design specification certified by BJORN HAAHERG Prof. Eng. State CALIF. Reg. No. 15570  DC22A6254 Rev. 0.
Stress analysis report certified by EDWARD MOSHIO Prof. Eng. State CALIF. Reg. No. MO18646
CHARLESCHICAL OF SHOP DESPRICTION .
I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of NORTH CAROLINA and employed by DEPARIMENT OF LABOR of STATE OF NORTH CAROLINA have inspected the part of a pressure vessel described in this Partial Data Report on /2-3/ 19 % and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.
By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.
DATE Trapector's Signature National Board, State, Province and No.
A 1 in form of lines, electrical or descript may be used provided (1) gize in

Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" X 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "PEPARESE"

VERIFIED & ACCEPTED

R.I. Inspector.

Date

(10/77)

FORM N-2 (back)

5/N A8740 Buraip Empt. 1/19/40

Items 4-8 Incl. to be	completed for	r single wal:	T AGESCTS	, jeckets v	Books. Or si	heile of hem	t avchencere
		Nominal	Corr	osion			
Shell: Material	T.S	Thickness	_in. Allo	wancein	Diaft.	in. Lengt	hftin.
(Kind &	Spec.No) ()	າກ.ofRange:	Specified	)			
. Seams: Long	n.	· ~		•	Efficient	ey	×
Girth	н.:	7.1	R.T		No of C		
Girth  6. Heads: (a) Material		T.S.		(b)Materia		I.S.	
<b>,,,</b> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				_,_,			<del></del>
Location (Top	Crown	Knuckle E.	lliptical	Concial	Hemispheric	al Flat	Side to Press.
Bottom, Ends) Thicks	ness Radium	Radius	Retio	Apex Angle	Radius	Diameter	(conv.or conc.
(a)							
If removable, bolts	<del></del>						
If removable, bolts (	J860		A1	Uther fast	gnine		
7. Jacket Closure:	rerrer 'Shoc 's	No., 1.5. 51	ze Number	,	(Describ	be or attach	sketch)
(Dear	cibe es cose	and wald has	ato If	her give di	consisse 4	halka di-	cribe or shetch
(5050)	,200 es 09ee	and Mara has	r, <del>o</del> cc. 1	DEL GIVE U	Drop We:	. DOITE, Ges	cribe or shetch
8. Design Pressure 2_	1250	nei ei	t 57	5 <b>e</b> r	Charny 1	Impact	<del>_</del> ,,
			·	· ·	at temo	. of	16-16
<del>*************************************</del>		<del></del>					
Items 9 and 10 to be co	empleted for	tube section	ns.				
9. Tube Sheets: Station	onary Mat'l.		Dia.	<del></del>	Thickness	in. Attach	ment
	()	(ind of Spec.	. No.) (	Subj.to Pre	88.)	(	Welded, Bolted)
Floatin	). Material		Dia	Thi	cknessin	. Attachment	
10. Tubes: Material	•	D 4m 5	7 h é al	nchei	B 	-	
m. Todes: Macerial	^U	₁₁ .	I UTCKU699	or ga	ge. Number_	, ype	
						(	Str. or U)
Items 11-14 incl. to be	- completed t	for inner ch	onhere of	ischeted v	esele or o	bennels of b	
Items 11-14 incl. to be					essels, or c	hannels of h	eat exchangers
	No	peinel	Corros	ion			
ll. Shell: Material	NoT.STI	ominal hicknessir	Corros	ion			
ll. Shell: Material (Kind&Spec	Ni T.S. Ti No.) (Hin.	ominal hickness <u>i</u> ofRange Spec:	Corros n. Allows ified)	ion ncein.D:	ieft	inLength_	
ll. Shell: Material (Kind&Spec	Ni T.S. Ti No.) (Hin.	ominal hickness <u>i</u> ofRange Spec:	Corros n. Allows ified)	ion ncein.D:	ieft	inLength_	
11. Shell: Material (KindåSpec 12. Seams: Long	T.S. TI	ominal hicknessir ofRange Spec:	Corros n. Allows ified)	ion ncein.D: fficiency	ieft	inLength_	ftin.
11. Shell: Material (KindåSpec 12. Seams: Long	T.S. TI	ominal hicknessir ofRange Spec:	Corros n. Allows ified)	ion ncein.D: fficiency	ieft	inLength_	ftin.
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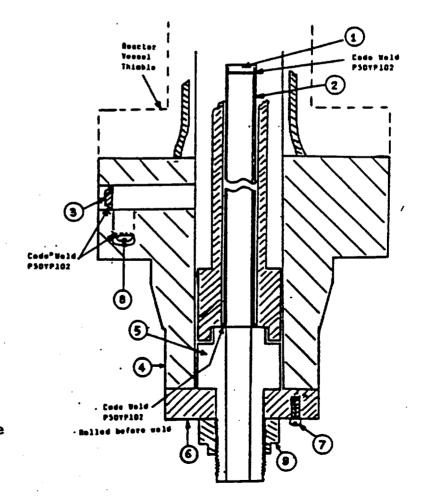
² List other internal or external pressure with conincident temperature when applicable.

### FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPORTENANCES* As required by the Provision of the ASME Orde Pulos, Section III. Dis.

1. I required by the restrict of the Asset the Rives, section in, biv. I plant sup
unufactured & Certified by: GE Company, 2117 Castle Hayne Rd., Wilmington, N.C. 28402
(b) Manufactured for: WNP-2, RICHLAND, Wa. 99352
(Name and Address of N Certificate Holder for completed nuclear component)
Identification-Certificate Holders's S/N of Part: A8740 Nat'l Bd. N. N/A
(a) Constructed According to Drawing No: 919D258G003 Dwg. Prepared by D. L. Peterson
(b) Description of Part Inspected: CYLINDER TUBE & FLANGE
(C) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75, Case No. 1361-2 Class 1
REMARKS: Sub-assembly of Control Rod Drive for use with reactor.
(Brief description of service for which component was designed)
Hydrostatically tested at 1825 psi. min.

#### *Sheet 2 of 2

- Cap 167A2343Pl SA182-F304 3/8 thick X 1 1/16 CD
- dicator Tube 104B1336P3
  312-TP316
  3/4 sch 40-seamless pipe
  0.113 wall thickness
  1.065 max. dia.
- 3. Plug 159All76Pl SA182-F304 1/4 thick x 0.812 OD
- 4. Flange 919D610P1 (719F474) SA182-F304 3.37 thick x 9 5/8 CD
- Head 129B3539P3, P5 SA182-F304 7/8 thick x 2.875 Dia.
- 6. Ring Flange 114B5122P2 SA182-F304 1" thick x 5.0 CD x 1.75 ID
- . Cap Screw 117C4516P2 SA193-B6 6 ea. 1/2 dia. on 4 1/8 bolt circle
- 3. Plug 175A7961Pl 182-F304 . __.38 thick x 1.307 dia.
- Nut 114B5460P1 SA193-B8A 1.30 thick x 2.62 dia.



# FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES.

As required by the Provisions of the ASME Code Rules and Such	
CONTACTOR OF THE PROPERTY OF T	<del></del> :
(Name and address of Manufactures of part)	
(b) Manufactured for General Electric Company, San Jose California	
(Name and address of Manufacture)	
2. Identification-Manufacturer's Setial No. of Part	
(a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson	·
(b) Description of Part inspected Control Rod Drive, Model #7RDB144 C1	
(c) Applicable ASME Code: Section III, Edition 1971, Addenda date None, Case No. 1361-1 Class 1	
3. Remarks: Standard part for use with Reactor. Hydrostatically tested at 1820 ps	: i
to the description of service for which component was designed	,,,
minimum.	
- Control of the Cont	
Ve certify that the exercises made in this	·
We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Co- forms to the rules of construction of the ASME Code Section III. (The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appure Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not in the component Design Specification and Stress Report.)	
1 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Date July 31 19 75 Signed GE, BWRSD - REM	-
(Manufactures)	
Certificate of Authorization Expires June 20, 1978 Certificate of Authorization No. NPT - 462	
CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)	
Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmingt	on
Stress analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmin	
Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14	_
Constant to the second state of the second sta	- 1
Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14	488
CERTIFICATE OF SHOP INSPECTION	
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspecto and/or the State of Province of North Carolina and employed by Department of Labor	rs
	-
Manufacturer's Partial Data Report on July 31	is
and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.  By signing this certificate, peither the inspector and his conductive with the ASME Code Section III.	·
By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concer ing the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employ with this Inspection.	er er
	İ
Date July 31 19 75	
Commissions NC 723 PA NC 1766 MA	1
Inspector's Signature Commissions NC 723 PA MC 1766 Ohio National Board, State, Province and No.	<del>-</del> !

#### FORM N-2 (back)

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(b)					Other fas			
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Jacket Closutet	he es eseè and	weld, ber,	te. If bergiv	e dimension	, if bolted, desc	ribe or sketch)	op Weight	
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Tubes: Material	<del></del>	_ 0.2			•			(Str. or U)
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#### FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I 6/23/01 1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM) 2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder ) Richland, Washington 99352 ( Name and Address of N Certificate Holder for completed nuclear component ) (b) Manufactured for : WNP 2 Nat'l Bd. No. N/A 2. Identification - Certificate Holder's S/N of Part : A9663 (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u> (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 . Case No. 1361-2 Class 1 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. ( Brief description of service for which component was designed ) Sheet 1 of 2 We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ). Signed <u>GE - NEBG - NF & CM - QA</u> Date: 03/15/94 ( NPT Certificate Holder ) Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N- 1151 Certification of Design for Appurtenance Design information on file at _____ GE Company, San Jose, California Stress analysis report on file at ____ GE Company, San Jose, California Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

## Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have and state the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

FORM N-2	back
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								at exchangers.	
. Shell:	Materi	a T T (Kind & Spec. No.)	.S(Min. of Range	Nominal Thickness Specified)	in. A				ngth ft in
. Seams:	Long _			н.т.¦					cy
	Girth			н.т					ourses
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b)		bolts used _				Other faste	ning	( Describe or attach sky	etch i
		e:	(Material		Size Number)			<u> </u>	
			(Des	scribe as ogee as	nd weld, bar, etc.	f bar give dimensions,	UF	op Weight arpy Impact	ft-lb
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Lo	cation	Thicknes	Crown s Radius	Knuck le	Elliptica Ratio	Concial Apex Angle	Hemispher	ical Flat	Side to Press. ( conv. or conc. )
b) Chann	el	, bolts used		(b)	(c)	Oth	er fastening		
		, 20,00	\-/ <u></u>				D C	rop Weight harpy Impact	be or attach sketch)
. Desig	n nressi	2			psi at		F a	t temp of	F
		e completed f				<del></del>			
		Outlets: Nu				:e	L	ocation	
5. Safet 5. Nozzl	es: Purp	pse (Inlet,	Number	Die. or Siz			ial Thicke	Reinforcer bess Material	nerit How Attached •
7. Inspe Openi	ings:	Handholes, I	lo		Size Size Size		Location _		
_			io		Legs		Other -	Attac	thed
8. Suppo	rts:	Skirt	Lugs	(Number)		(Number)		scribe)	(Where & How)

^{1 -} If Postweid Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

MYN6

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. I

6/23/01

nufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

### 2117 Castle Hayne Road, Wilmington, North Carolina 28401

( Name and Address of NPT Certificate Holder )

(b)	Manufactured for	:	WNP 2 Richland, Washington 99352  (Name and Address of N Certificate Holder for completed nuclear component)	_
-----	------------------	---	--------------------------------------------------------------------------------------------------------------	---

2. Identification - Certificate Holder's S/N of Part : A9663 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

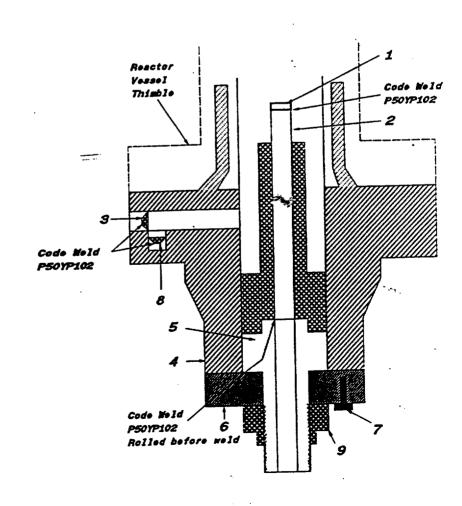
(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

( Brief description of service for which component was designed )

Sheet 2 of 2

- 1. Cap 166B9274P001 SA182 - TP316 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4° thick x 0.812° OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Head 129B3539P005 \$A182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



MYN 6

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* M N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR FACT AND ILI, Div. As required by the Provision of the ASME Code Rules, Section III, Div.

	8(12)76 Wine (GENER CM)
Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufactured	6/23(0)
2447 Coote Havne Road Wilmington, North Carolina 28401	•
( Name and Address of MYI Certificate nutter /	
(b) Manufactured for : WNP 2 Richland, Washington 99352  ( Hame and Address of M Certificate Holder for completed nuclear comp	onent )
Identification - Certificate Holder's S/N of Part : A9155 Nat'l Bd. No. N/A	
(a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Pete	150II _
(b) Description of Part Inspected: Cylinder Tube & Flange	•
(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N20	7 1361-2 Class 1
REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  ( Brief description of service for which component was designed )	
	Sheet 1 of 2
We certify that the statements in this report are correct and this vessel part of appurtenance of conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance the component Design Specification and Stress Report ).  Date: 12/22/92 Signed GE-NEBG-NF&CM-QA By Stress Conformation	nce is not included in
Certification of Design for Appurtenance	
Design information on file at <u>GE Company. San Jose. California</u>	
Control of the Contro	
Stress analysis report on file at GE Company, San Jose, California	
Stress analysis report on file at <u>GE Company, San Jose, California</u> DC22A6253 Rev. 1 Design specification certified by <u>Biom Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>155</u>	
Stress analysis report on file at <u>GE Company, San Jose, California</u>	<u>70</u>
Stress analysis report on file at <u>GE Company</u> , <u>San Jose</u> , <u>California</u> DC22A6253 Rev. 1 Design specification certified by <u>Biorn Haabera</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>155</u> DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M</u>	<u>70</u>
Stress analysis report on file at <u>GE Company</u> , <u>San Jose</u> , <u>California</u> DC22A6253 Rev. 1 Design specification certified by <u>Biorn Haaberq</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>155</u> DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M</u> Certification of Shop Inspection	<u>70</u>

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 12/16, 1992, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

NC 1231, Ohio, WC 3686 PA Our National Board, State, Province And No. Inspector's Signature

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

#### FORM N-2 ( back )

				Nominal		ier	· · · · · · · · · · · · · · · · · · ·			
4.	Shell:	Material (Mnd & Sc	T.S. Dec. No.) (Min. of Ren	Thickness	s in. Al	Towance	in. Dia	ft	in. Lengt	h ft′
5.	Seams:	Long		н.т. '		R.T.		E	fficiency	
						·				ses
i.	Heads:	(a) Material			T.S	(ъ) н	aterial		_ T.S	
a b	Location,	on ( Top , Ends ) Thic	Crown ckness Radius	Knuck le Radius	Elliptical Ratio		Hemispher	ical Flat	Sid	e to Press. onv. or conc. )
		ovable, boits u	ised	M, Spec. No., T.S	Stre Number I	Other faste	n ing	( Describe o		
•	Jacket	Closure:			and weld, ber, etc. If	had other discounting			w attach swetch )	·
		2					D: C:	rop Weight		ft-1b
	Design	pressure	1250	ps	i at	575	F a:	t temp of _		°F
_		d 10 to be comp								
•	Tube Sh	heets: Station	ary. Material	(Kind & S	Dia	(Subject to pressu	Thickne	ess in	. Attach	ment (Welded, Sol
		Floatin	g. Material		D1a	•	Thickno	ess in	. Attach	ment
•	Tubes:	Material		0.0.	in. Thic	kness	_ inches or gage	. Number		Туре
te	ms 11 -	14 incl. to be	completed for	inner cham	here of inches	ted vessels				(Str. or U
_										
		<del>,-</del>	<del></del>		·		or channels	or neat ex	changers.	
•	Shell:	Material		Nominal Thickness pe Specified)	Co	enacion				h ft^
		Material	T.S. ec. No.) (Min. of Rang	Nominal Thickness Je Specified) t H.T.	Co	rrosion lowance	in. Dia	_ ft	in. Lengti	h ft^
•	Seams:	Material (Kind & Sp	T.S. ec. No.) (Min. of Rang	Nominal Thickness e Specified) t H.T.	Co 1n. Al	rosion lowance R.T.	in. Ola	ft &	in. Length	ses
	Seams:	Material (Kind & Sp	T.S. ec. No.) (Min. of Rang	Nominal Thickness e Specified) t H.T.	Co 1n. Al	rosion lowance R.T.	in. Ola	ft &	in. Length	ses
	Seams: Heads: Loca Top,bot	Material (Kind & Sp  Long  Girth  (a) Material  ation Thic	T.S. ec. No.) (Min. of Rang	Nominal Thickness e Specified) 1 H.T. H.T.	Co 1n. Al	rosion lowance R.T.	in. Dia	ft E	in. Length fficiency o. of Cours T.S.	ses
	Seams: Heads: Loca Top.bot Channel	Material (Kind & Sp  Long  Girth  (a) Material  ation Thic	T.S. ec. No.) (Min. of Rang Crown kness Radius	Nominal Thickness pe Specified) H.T. H.T. Knuck le Radius	T.SElliptical Ratio	R.T. R.T. (b) Ma	in. Dia iterial Hemispheri	ft E	in. Length fficiency o. of Cours T.S.	ses
a)	Seams: Heads: Loca Top.bot Channel	Material (Mind & Sp  Long  Girth  (a) Material  ation Thic ctom, ends	T.S. ec. No.) (Min. of Rang Crown kness Radius	Nominal Thickness pe Specified) H.T. H.T. Knuck le Radius	T.SElliptical Ratio	R.T. R.T. (b) Ma	terial  Hemispheri Radius  fastening	ft E	in. Length fficiency o. of Cours T.S. Side eter ( co	ses e to Press. onv. or conc. )
a) b)	Heads:  Loca Top.bot Channel If remo	Material (Mind & Sp  Long  Girth  (a) Material  ation Thic ctom, ends	T.S. ec. No.) (Min. of Rang Crown kness Radius	Nominal Thickness Personal H.T. H.T.  Knuck le Radius	T.SElliptical Ratio(c)	R.T. R.T. (b) Ma Concial Apex Angle	Hemispheri Radius fastening	ft E Note:	in. Length fficiency o. of Cours T.S. Side eter ( co	ses e to Press. onv. or conc. )
	Seams: Heads: Loca Top.bot Channel If remo	Material (Kind & Sp  Long  Girth  (a) Material  ation Thic ctom, ends  vable, bolts u  pressure	T.S. ec. No.) (Min. of Rang Crown kness Radius sed (a)	Nominal Thickness e Specified)  H.T.  H.T.  Knuck le Radius  (b)	T.SElliptical Ratio(c)	R.T. R.T. (b) Ma Concial Apex Angle	Hemispheri Radius fastening	ft E	in. Length fficiency o. of Cours T.S. Side eter ( co	to Press. onv. or conc. )
a) b)	Seams:  Heads:  Loca Top.bot Channel If remo  Design	Material (Xind & Sp. Long Girth (a) Material Ation Thic stom, ends lovable, bolts under the complete to be complete	T.S. ec. No.) (Min. of Rang Crown kness Radius sed (a)	Nominal Thickness Packled)  H.T.  H.T.  Knuck le Radius  (b)	T.S	R.T. R.T. (b) MacConcial Apex Angle	Hemispheri Radius fastening Or Ch	ft E Note:	in. Length  fficiency  o. of Cours  T.S.  Side  eter ( co	to Press. onv. or conc. )
a) b)	Heads:  Loca Top.bot Channel If remo  Design  ms below  Safety	Material (Kind & Sp  Long  Girth  (a) Material  ation Thic ctom, ends  vable, bolts u  pressure  to be complete  Valve Outlets:	T.S. ec. No.) (Min. of Rang Crown kness Radius sed (a)	Nominal Thickness Packled)  H.T.  H.T.  Knuck le Radius  (b)	T.S	R.T. R.T. (b) MacConcial Apex Angle	Hemispheri Radius fastening Or Ch	ft E Note that Diameter Temporary Impacts: tempof	in. Length  fficiency  o. of Cours  T.S.  Side  eter ( co	to Press. onv. or conc. )
a) b)	Heads:  Loca Top.bot Channel If remo  Design  ms below  Safety	Material (Xind & Sp. Long Girth (a) Material Ation Thic stom, ends lovable, bolts under the complete to be complete	T.S. ec. No.) (Min. of Rang Crown kness Radius sed (a)	Nominal Thickness Packled)  H.T.  H.T.  Knuck le Radius  (b)	T.S	R.T. R.T. (b) MacConcial Apex Angle	Hemispheri Radius fastening Or Ch	ftE  Notical Flat Diameter  Top Weight- harpy Impact temp of	in. Length  fficiency  o. of Cours  T.S.  Side  eter ( co	to Press. onv. or conc. )
a) b)	Seams:  Loca Top,bot Channel If remo  Design  ms below Safety Nozzles	Material (Xind & Sp. Long Girth (a) Material ation Thicatom, ends by able, bolts under the complete valve Outlets: Purpose (Inlet, Outlet, Orain)	T.S. ec. No.) (Min. of Rang Crown kness Radius sed (a) ed for all vess Number	Nominal Thickness Packled)  H.T.  H.T.  Knuck le Radius  (b)  Dia or Stoe	T.S	R.T. R.T. (b) MacConcial Apex Angle	terial	ftE  Notical Flat Diameter  Top Weight- harpy Impact temp of	in. Length  fficiency  o. of Cours  T.S.  Side  ster ( co	to Press. Onv. or conc. )  Tach swetch)  ft-1b
. te	Heads:  Loca Top.bot Channel If remo  Design  ms below  Safety	Material (Kind & Sp Long Girth (a) Material Ation Thic Ation Thic Ation, ends Ation Thic Ation Ation Thic Ation Ation Thic Ation A	T.S. ec. No.) (Min. of Plans Crown kness Radius sed (a)  ed for all vess Number  Number	Nominal Thickness Je Specified)  H.T.  H.T.  Knuck le Radius  (b)  Dia or Stee	T.S	R.T. R.T. (b) MacConcial Apex Angle Other	in. Dia  Iterial Hemispheri Radius  fastening  Or Ch  F at	ftE  Note that Diameter is the property of  cation  Read Market Mar	in. Length fficiency o. of Cours T.S. Side eter (co	to Press. onv. or conc. )  tach sketch )  ft-1b  ft-1b
a) b)	Seams:  Loca Top.bot Channel If remo  Design ms below Safety Nozzles	Material (Xind & Sp. Long Girth (a) Material ation Thicatom, ends lovable, bolts under the complete valve Outlets: Purpose (Iniet, Outlet, Orain)	T.S. ec. No.) (Min. of Plans Crown kness Radius sed (a) ed for all vess Number Number	Nominal Thickness Je Specified)  H.T.  H.T.  Knuck le Radius  (b)  Dia or Stee	T.S	R.T. R.T. (b) Macondal Apex Angle Other	Hemispheric Radius  fastening  Or  Fat	ft E No ical Flat Diame  Top Weight. Harry Impact temp of  Cation  Real Market Ma	in. Length fficiency o. of Cours T.S. Side eter (co	to Press. onv. or conc. )  tach sketch )  ft-1b  ft-1b

^{1 -} If Postweid Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFIC E HOLDERS' DATA REPORT FOR NUCL R PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I

1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

6123101

### 2117 Castle Havne Road. Wilmington, North Carolina 28401 ( Name and Address of NFT Certificate Holder )

(b)	Manufactured for	: _	WNP 2	Richland, Washington 99352
			( Name and	Address of N Certificate Holder for completed nuclear component )

- 2. Identification Certificate Holder's S/N of Part : A9155 Nat'l Bd. No. N/A
  - (a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson
  - (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
  - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi, min.

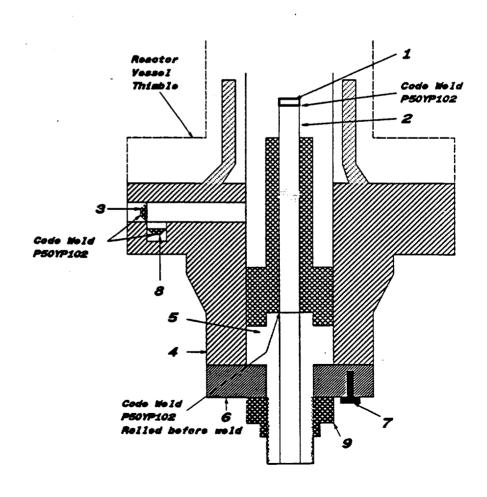
  ( Brief description of service for which component was designed )

Sheet 2 of 2

1. Cap 166B9274P001 SA182 - F304 3/8" fhick x 1 1/16" OD

2. Indicator Tube 166B9313P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness =1.065" max. dia.

- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37* thick x 9 5/8* OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 11485122P002, P003 137C8151P001, P002 SA182 - F304 1° thick x 5.0° OD x 1.75° ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30" thick x 2.62" dia.



MYNG

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPU	RTENANCES*
FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND ATT	Culdy Say
1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacture  2117 Castle Hayne Road, Wilmington, North Carolina 28401  ( Name and Address of NPT Certificate Holder )	
(b) Manufactured for : IVNP 2 Richland, Washington 99352  (Name and Address of N Certificate Holder for completed nuclear components)	nent )
2. Identification - Certificate Holder's S/N of Part: A9550 Nat'l Bd. No. N/A  (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peters  (b) Description of Part Inspected: Cylinder Tube & Flange  (c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75, Case No. 136  3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  (Brief description of service for which component was designed)	
	Sheet 1 of 2
We certify that the statements in this report are correct and this vessel part or appurtenance as conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Spec Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Ho is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance the component Design Specification and Stress Report).  Date: 04/08/94  Signed GE-NEBG-NF & CM-QA (NPT Certificate Holder)  Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: NPTN-1	e is not included in
Certification of Design for Appurtenance	
Design information on file atGE Company, San Jose, California	
OF Company Sen Jose California	

### Stress analysis report on file at _____ GE Company_ Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u> Prof. Eng. State Calif. Reg. No. M018646 DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u>

### Certification of Shop Inspection

I. the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

NC 1231, Ohio, WC 3686 PA 198 1994 Juone P Every Inspector's Signature National Board, State, Province And No.

Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

Item	s 4-8 I	ncl. to be comp	leted for sing	le wall ves	sels, jackets	vessels, or	shells of	heat exc	hangers.	
4.	Shell:	Material (Kind & Spec	. No. ) (Min. of Rang	e Specified )	in. All					th ft :n.
5.,	Seams:	Long		н.т. ј		R.T			Efficiency	
		Girth		н.т		R.T			No. of Cou	rses
6.	Heads:	(a) Material _	· · · · · · · · · · · · · · · · · · ·		T.S	(b) Ma	steria		T.S.	
(a)	Locatio Bottom,	n (Top Ends ) Thick	Crown ness Radius		Elliptical Ratio	Concial Apex Angle	Hemisphe Radius			de to Press. conv. or conc. )
(b)	If remo	ovable, bolts us	ed			Other faster	ni <b>ng</b>			
7		Closure:	( Materia	I, Spec. No., T.S.					ribe or attach sketch	
		_	(0			er gwe dimensions, i		Drop Weig Charpy In	ght	ft-1b
8.	Design	pressure	1250	ps	i at	575	F	at temp o	of	F
		d 10 to be comp								
9.	Tube SI		ry. Material	(NUND & SP	ec. NO. j					hment (Weided, BoRed hment
10.	Tubes:	Material		O.D	in. Thic	kness	inches or ga	ge. Numi	ber	Type
		14 incl. to be						- of boo	+ evebanene	
		(Kind & Spi	ic. No. ) (Min. of Ran	ge Specified )	in. A1					gth ft in.
12.	Seams:	Long		1						urses
					7.6					
13.			Crown kness Radius	Knuck le		Concial Apex Angle	Hemisphe		Flat S	ide to Press.
		ottom,ends								
	If rem	novable, bolts u	sed (a)	(b)	(c)	Utne	er fasteni	Drop Wei	( Describe	or attach sketch ) ft-lb
14.	Design	pressure		<u> </u>	psi at		°F	at temp	of	F
		ow to be complet								
		y Valve Outlets:						Location	n	
		Purpose (Inlet, Outlet, Drain)	Number	Die. or Size		Materia	The	ickness	Reinforcemer Material	How Attached
17.	Inspec Openia	ction Manholes, ngs: Handholes Threaded	i, No				Location			
18.	Suppor		Lugs	(Number)		(Number)		( Describe )	Attach	(Where & How)

^{1 -} If Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. I

_	1	_		
-	d	23	16)	

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

# 2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Holder)

(b) Manufactured for : WNP 2 Richland, Washington 99352

(Name and Address of N Certificate Holder for completed nuclear component)

2. Identification - Certificate Holder's S/N of Part : A9550 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson

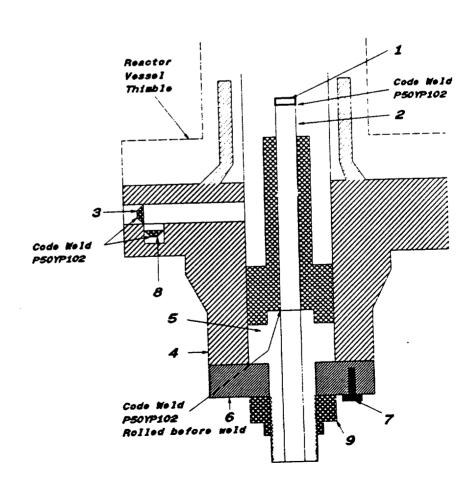
(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

( Brief description of service for which component was designed )

- Cap 166B9274P001 SA182 - TP316 3/8" thick x 1 1/16" OD
- Indicator Tube 167B4908P001 SA312 - TP316 3/4' sch 40 - seamless pipe 0.113' wall thickness 1.065' max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4° thick x 0.812° OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37* thick x 9:5/8* OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1* thick x 5.0* OD x 1.75* ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 114B5460P**00**1 XM - 19 SA479 1.30° thick x 2.62° dia.



#### FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I 1. Hanufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM) 6/23/01 2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder ) Richland, Washington 99352 (b) Manufactured for : WNP 2 ( Name and Address of N Certificate Holder for completed nuclear component ) Nat'l Bd. No. N/A 2. Identification - Certificate Holder's S/N of Part : A9582 (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u> (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 . Case No. 1361-2 Class 1 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. ( Brief description of service for which component was designed ) Sheet 1 of 2 We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ). Signed <u>GE - NEBG - NF & CM - QA</u> Date: 03/15/94 C QA Representive ( NPT Certificate Holder ) Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151 Certification of Design for Appurtenance GE Company, San Jose, California Design information on file at __ Stress analysis report on file at ____ GE Company, San Jose, California Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>

#### Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

DC22A6254 Rev 1 ~

NC 1231, Ohio, WC 3686 PA 1999 Jerome P Every
Inspector's Signature National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

		i	Nominal	Co	orrosion	ia Dia	ft in l	enath ft. i
Shell:	Material T. (Kind & Spec. No.)	.S (Min. of Range S	Thickness . Specified)	in. A	llowance	in. Dia	. rc m. c	ength ft i
Seams:	Long				R.T.		Efficie	ncy%
	Girth	н			<del></del>			Courses
Heads:	(a) Material			T.S	(b) Ma	aterial	T.	\$
Location Bottom.		Crown		Elliptical Ratio	_	Hemispheric	al Flat	
If remov	vable, bolts used _		Spec. No., T.S. S	Sing Alterbar 1	Other faste	ning	( Describe or attach s	sketch)
Jacket (	Closure:	•			If bar give dimensions,	d holts, describe of	sketch )	
		(Desc	xibe as ogee an	d weid, ber, etc. I	oar give dunerisons,	Dro	op Weight	ft-lb
Dogian	2 pressure	1250	osi	at	575	°F at	temp of	°F
	10 to be completed							
ams 9 and	To to be completed	Material		O i		Thicknes	ss in. At	ttachment
inne 200	eets: Stationary.	'Material	(Kind & Spe	e. No. )	( Subject to pressu	Thicknes	ss in. At	(Welded, Bolled
Tubes:	Material		0.D	in. Thi	ickness	inches or gage.	Number	Type(Str. or U)
				<u> </u>		on channels (	of heat exchange	ers.
	14 incl. to be comp							
		r.s	Nominal Thickness Specified)		Corrosion Allowance	in. Dia	_ ft in. l	Length ft
Shell:	Material I	「.S. )(Min. of Range	Nominal Thickness Specified) 1		Corrosion Allowance	in. Dia	ft in. l	Length ft
Shell: Seams:	Material T (Kind & Spec. No. Long	「.S. )(Min. of Range	Nominal Thickness Specified) 1 H.T. 1 H.T.	in. #	Corrosion Allowance R.T.	in. Dia	ftin. l	Length ft
Shell: Seams:	Material T (Kind & Spec. No. Long	「.S. )(Min. of Range	Nominal Thickness Specified) 1 H.T. 1 H.T.	in. #	Corrosion Allowance R.T.	in. Dia	ftin. l	Length ft
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Shell:  Seams:  Heads:  Loca a) Top.bot b) Channel	Material T (Kind & Spec. No.  Long  Girth  (a) Material  ation Thickness ttom, ends	Crown Radius	Nominal Thickness Specified) H.T. 1 H.T	T.SElliptica	R.T. R.T. (b) N Concial Apex Angle	in. Dia	ft in. l Efficie No. of T cal Flat Diameter	Length ft % ency % Courses % .S Side to Press. ( conv. or conc. )
Shell: Seams: Heads: Loca a) Top.bot	Material T (Kind & Spec. No.  Long  Girth  (a) Material  ation Thickness ttom, ends	Crown Radius	Nominal Thickness Specified) H.T.  tH.T.  Knuckle Radius	T.SElliptica	R.T. R.T. (b) N Concial Apex Angle	daterialHemispheri Radiuser fastening	ft in. l	ency
Shell: Seams: Heads: Loca a) Top,bot b) Channel If remo	Material T (Kind & Spec. No.  Long Girth  (a) Material ation Thickness ttom, ends povable, bolts used	Crown Radius	Nominal Thickness Specified)  H.T.  H.T.  Knuckle Radius  (b)	T.S.  Elliptica Ratio  (c)	Corrosion Allowance R.T. R.T. (b) No service Angle Other	Material Hemispheri Radius er fastening Ch	ft in. l  Efficient  No. of  The call Flat Diameter  op Weight Carpy Impact	ency
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Shell: Seams: Heads: Loca a) Top,bot b) Channel If remo	Material Towns (Mind & Spec. No. Long Girth (a) Material Thickness ttom, ends lovable, bolts used for the work to be completed for the material for the materia	Crown Radius (a)	Nominal Thickness Specified) H.T.  H.T.  Knuckle Radius  (b)	T.S	Corrosion Allowance R.T. R.T. (b) N Concial Apex Angle	Material Hemispheri Radius er fastening Ch F at	ft in. l  Efficient  No. of  The cal Flat Diameter  op Weight arpy Impact temp of	Length ft
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Shell: Seams: Loca a) Top,bot b) Channel If remo  Design tems below Safety Nozzle:	Material T (Kind & Spec. No.  Long  Girth  (a) Material  ation Thickness ttom, ends lovable, bolts used  pressure  w to be completed for  Valve Outlets: Num  s: Purpose (Inlet, Outlet, Orain)	Crown s Radius (a) or all vess	Nominal Thickness Specified) H.T.  H.T.  Knuckle Radius  (b)  els where	T.S.  Elliptica Ratio  (c)  psi at  applicable.  Siz	Corrosion Allowance R.T. R.T. (b) No concial Apex Angle Other	Hemispheri Radius  F at  Lo Location	ft in. l  Efficient  No. of  The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state	Length
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^{1 -} If Postweid Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

## REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III. Div. I	Zuch
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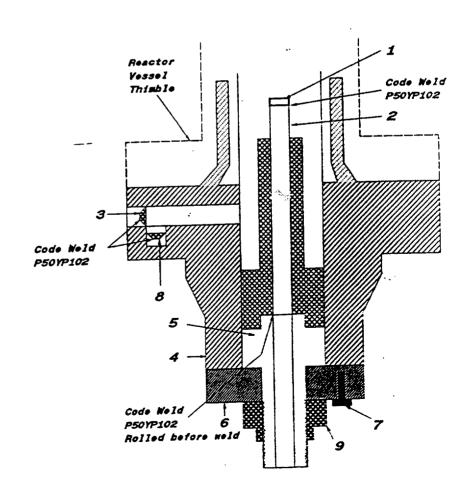
1.	Manufactured & Certified by :	General Electric Company Nuclear Fuel & Components Manufacturing	(GENF&CM) 6)23/01
	• •	2447 Carlo Hayna Boad, Wilmington, North Carolina 28401	, ,

2117 Castle Hayne Road, Wilmingto ( Name and Address of NPT Certificate Holder )

<b>(b)</b>	Manufactured for :	WNP 2 Richland, Washington 99352  (Name and Address of N Certificate Holder for completed nuclear component)	
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- 2. Identification Certificate Holder's S/N of Part : A9582 Nat'l Bd. No. N/A
  - (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
  - (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
  - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. ( Brief description of service for which component was designed )

- 1. Cap 16689274P001 SA182 - TP316 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4° sch 40 - seamless pipe 0.113 wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4° thick x 0.812° OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37° thick x 9 5/8° OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1° thick x 5.0° OD x 1.75° ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2º dia. on 4 1/8º bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div.

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	-8-	T12	*	н

Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM) 6/23/01 2117 Castle Havne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder ) Richland, Washington 99352 (b) Manufactured for : WNP 2 ( Hame and Address of N Certificate Holder for completed nuclear component ) _ Nat'l Bd. No. ___<u>N/A</u> 2. Identification - Certificate Holder's S/N of Part : <u>A9138</u> (a) Constructed According to Orawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u> (c) Applicable ASME Code: Section III . Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1 3. REHARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. ( Brief description of service for which component was designed ) Sheet 1 of 2 We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ). Signed <u>GE - NEBG - NF & CM - QA</u> Date: 01/28/93 ( MPT Certificate Holder ) Certificate of Authorization Expires: 6/16/93 Certification of Authorization No. : NPT N - 1151 Certification of Design for Appurtanance GE Company . San Jose . California Design information on file at _____ Stress analysis report on file at ____GE Company. San Jose . California Design specification certified by <u>Blorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u> DC22A6253 Rev. 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018648</u> Certification of Shop Inspection I. the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on the board of the b and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied. concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or

Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

connected with this inspection.

Date

Quom

Inspector's Signature

NC 1231. Ohio. WC 3686 PA

National Board, State, Province And No.

Ite	ns 4-8 I	nol. to	be complet	ed for sing	le wall ve	ssels, jacket	s vessels, or	shells of heat	exchangers.	
4.	Shell:		ia 1 (Kind & Spec. No		Thickness	in. Al	rrosion lowance	in. Dia ft	in. Len	gth ft
5.	Seams:	Long			н.т. 1		R.T.	<u> </u>	Efficienc	xx
					1					urses
6.	Heads:	(a) Ma	iterial		· .	T.S	(b) M	aterial	T.S.	-
	Location,	n ( Tor		Crown ss Radius	Knuck le Radius	Elliptical Ratio		Hemispherica i	Flat S	
(6)		vab le.	boits used		L Spec. No., T.S.		Other faster	ning	escribe or attach shell	
7.	Jacket	Closur	e:	( Materia	K, Spec. No., 1.S.	Size Mumber)		if boils, describe or state Organ	ASSESSED OF BRIDGE SHAPE	
			2					Charpy	Impact	•
8.	Design	pressu	re	1250	ps	i at	575	F at tem	p of	· •
			be complete							
9.	Tube Sh	neets:			/Mod & Sn	an No.1	( Stublest to present	<b></b> 1		(Welded, Bolled )
10.	Tubes:	Mater	ial	· .	0.0	in. Thic	kness	inches or gags. N	umber	Type (Str. or U)
îte	ms 11 -	14 inc	l. to be con	no leted for	inner cham	bers of jacke	ted vessels.	or channels of h	eat exchangers	•
			(	,	1					gth ft a
12.	Seams:	Long			•					ух
										urses
13.	Heads:	(a) M	aterial			T.S	(ь) м	aterial	T.S.	· .
			Thickne	Crown ss Radius		Elliptical Ratio				ide to Press. conv. or conc. )
(0)			boits used	(a)	(b)	(c)	Othe	r fastening	/ Describe	or adaph shelch )
								Orop V	eight	·
	٠		2	•				•		• •
14.		<u> </u>				psi at		F at tem	p or	
Ite			·			applicable.				
15.	Safety	Va lve	Outlets: N	umber		Size		Locat1	on	•
16.	Nozz le:		oo (Inlot, , Drain)	Number :	Dia. or Star	Type	Linteriol .	Thickness	Reinforcement Material	How Attached
17.	Inspect Open in	gs: H	andholes.	No No		Size Size		Location		
18.	Support		kirt(Yes or	Lugs	(Number)	Legs		ther(Describe)	Attache	(Where & How)

⁻ If Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

# FORM N-2 NPT CERTIF. TE HOLDERS' DATA REPORT FOR NUL AR PART AND APPURTENANCES" As required by the Provision of the ASME Code Rules, Section III, Div. I

1.	Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing	(GENF&CM)
	2117 Castle Hayne Road, Wilmington, North Carolina 28401	6/23/01

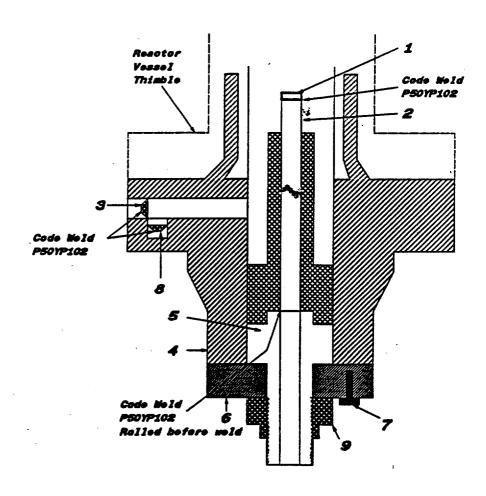
(b) Manufactured for : WNP 2 Richland, Washington 99352

( Name		Certificate		completed	nuclear	component

- 2. Identification Certificate Holder's S/N of Part : <u>A9138</u> Nat'l Bd. No. <u>N/A</u>
  - (a) Constructed According to Drawing No: <u>919D258G003 Rev 17</u> Dwg. Prepared by <u>D. L. Peterson</u>
  - (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
  - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi, min.

  ( Brief description of service for which component was designed )

- 1. Cap 166B9274P001 SA182 - F304 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 166B9313P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002, P003 137C8151P001, P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30" thick x 2.62" die.



FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. I

-	
T.	Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)  Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
-	2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of RFT Certificate Holder )
	(b) Manufactured for : WNP 2 Richland, Washington 99352  ( Name and Address of N Certificate Bolder for completed nuclear component )
2	Identification - Certificate Holder's S/N of Part : A9531 Nat'l Bd. No. N/A
•	(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
	(h) Description of Part Inspected: Cylinder Tube & Flange
	(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
3.	REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  ( Brief description of service for which component was designed )
	Sheet 1 of 2
<i>\f</i>	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).  Date: 03/15/94  Signed GE-NEBG-NF&CM-QA By SC RA Representive )  Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: NPTN-1151
	Certification of Design for Appurtenance
	Design information on file at GE Company , San Jose , California
	Stress analysis report on file at <u>GE Company, San Jose, California</u>
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
L	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
	Certification of Shop Inspection
	I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.  By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied. By signing the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.
	Dave    State   Second   Secon
1	nare A sustained

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

<u>l</u> ten	ıs 4-8 İr	ncl. to	be comple	ted for sing	gle wall ve	ssels, jacket	s vessels, or	shells of heat e	exchangers.	
4.	Shell:	Materi	a 1 (Kind & Spec. N	T.S. lo.) (Min. of Rang	Nominal Thickness a Specified)	in. Al				ength ft in.
<b>5</b> .	Seams:	Long _			н.т. '		R.T		_ Efficie	ency ^X
					1				_ No. of	Courses
6	Heads:							aterial	T.	\$
•		_						Hemispherical	Flat	Side to Press.
		Ends )	Thickne	ess Radius	Radius	Ratio	Apex Angle	Radius	Diameter	( conv. or conc. )
(a) (b)										
	If remo	vable,	bolts used	( Materia	al, Spec. No., T.S.	Size Number)	uther faste	ning(D	escribe or attach :	sketch )
7.	Jacket	Closure	:	(D	escribe as ogee a	nd weld, bar, etc. #	bar give dimensions,	If bolts, describe or sketch	1)	
				,-	•		-			ft-1b
_			2	****			575	0	of	٠,
						1 at	3/3			
				ted for tube						
9.	Tube Sh	eets:	Stationary	y. Material	LiGod & Sc		A Contract to the second	1		(Weided, Sched)
			Floating.	Material		Dia	1.	Thickness _	in. At	ttachment
0.	/Tubes:	Mater	ia1		0.0	in. Thic	kness	_ inches or gage. N	mber	Type(Str. or ∪ )
							ted vessels	or channels of h	eat exchange	Prs.
			(Kind & Spec.	T.S No.) (Min. of Ren	ge Specified ) 1	i in. A				Length ft in
	June .				1				No. of	Courses
					-					.s
	Loca	ıt ion	Thickn	Crown	Knuck le	C114-A41	Concini	Homischerical	Flat	
	Top.bot Channel	1						- Factories		
	If remo	ovable,	bolts use	d (a)	(b)	(c)	Othe	r fastening Drop W Charpy	eight Impact	ribe or altach skelch)
			2			psi at		e Fat tem		°F
									:	
			<u> </u>			applicable.				<u> </u>
<b>1</b> 5.	Safety	Valve (	Out lets:	Number		Size		Locati	on	
<b>16</b> .	Nozz les	-	e (Inlet, Drain)	Number	Dia. or Size	Туре	Material	1 Thickness	Reinforce Material	How Attached
17.	Inspect	ion M	anholes,	No	·	Size		Location		· ·
	Opening	gs: H	andholes, hreaded,			Size		Location		
18	Support		kirt	Lugs				Other	Atta	ched

^{1 -} If Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME-Code Rules, Section III, Div. I

**ब**म्येश

Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

### 2117 Castle Hayne Road, Wilmington, North Carolina 28401

( Name and Address of NPT Certificate Holder )

161	Manufactured for	: WNP 2	Richland, Washington 99352
(0)	Manutactured 10		and Address of N Certificate Holder for completed nuclear component

___ Nat'l Bd. No. __ N/A 2. Identification - Certificate Holder's S/N of Part : A9531

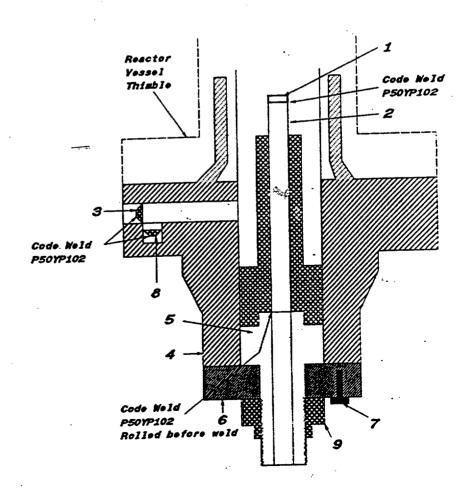
(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

(c) Applicable ASME Code: Section III . Edition 1974 . Addenda Date W'75 . Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. ( Brief description of service for which component was designed )

- 1. Cap 166B9274P001 SA182 - TP316 3/8" thick x 1 1/16" OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4° sch 40 - seamless pipe 0.113' wall thickness 1.065' max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Head 129B3539P005 SA182 - F304 7/8° thick x 2.875° dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1° thick x 5.0° OD x 1.75° ID
- 7. Cap Screw 117C4516P002 SA 193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Dig. I

_	Ludip Luph
۷.	Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
	2117 Castle Havne Road. Wilmington. North Carolina 28401  ( Heme and Address of MFT Certificate Holder )
	(b) Manufactured for : WNP 2 Richland, Washington 9935?  ( Name and Address of N Certificate Holder for completed nuclear component )
2.	Identification - Certificate Holder's S/N of Part : _A9157
	(a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson
	(b) Description of Part Inspected: <u>Cylinder Tube &amp; Flange</u>
	(c) Applicable ASME Code: Section III . Edition 1974 . Addenda Date W75 . Case No. N207 1361-2 Class 1
3.	REMARKS: <u>Standard part for use with Reactor. Hydrostatically tested at 1825 psi, min.</u> ( Brief description of service for which component was designed )
	Sheet 1 of 2
~*	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).  Date: 12/22/92 Signed GE-NEBG-NF & CM-OA  (NPT Certificate Holder)  Certificate of Authorization Expires: 6/16/93 Certification of Authorization No.: NPT N-1151
	Certification of Design for Appurtenance
	Design information on file at <u>GE Company</u> . San Jose California
	Stress analysis report on file at <u>GE Company</u> , San Jose, California
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haabero</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A6254 Rev 1 Stress analysis report certified by <i>Edward Yoshio</i> Prof. Eng. State <i>Calif.</i> Reg. No. <i>M018646</i>
	Anneldinables of Alexandram and an

#### Certification of Shop Inspection

I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 1992. and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied. concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

Pc ners NC 1231, Ohio, WC 3686 PA
National Board, State, Province And No. Inome Inspector's Signature

Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

(07/90)

Ite	ns 4-8 I	ncl. to be	complete	d for sing	le wall ves	sels, jack	ets vessels,	or shells	of heat e	xchangers.		
4.	Shell:			.S.		in. /	Corrosion Allowance	in. Dia.	ft.	in. L	ength	ft in
5.	Seams:	Long	•		1 H.T.		R.	Τ.		_ Efficie	ncv	X.
•					1					No. of		
	Usada.				-					T.:		
٥.		_		•								
(a) (b)	Bottom,	•	Thickness	Radius	Radius	Ratio		le Radiu	\$	Flat Diameter	( conv. o	r conc. )
(,	If remo	vable, bo	ts used _				Other fa	stening		secribe or attach a		
7.	Jacket	Closure:		( Material	, Spec. No., T.S.	Size Number )	If her give dimens			secrice or aniach a	——————————————————————————————————————	
				(Dec	scribe as ogee ar	nd wold, bar, etc.	If bar give dimens	ions, if bolts, dec	Drop We Charpy	ight Impact		ft-1b
8.	Design	pressure		1250	ps	i at	575	°F	at temp	of		°F
Ite	ms 9 and	i 10 to be	completed	for tube	sections	-	<u> </u>			<del> </del>		
9.	Tube Si	neets: St	ationary.	Material	· · · · · · · · · · · · · · · · · · ·	0	ia.	Th	ickness	in. At	tachment _	
		<b>-</b>										(Welded, Boiled)
10.	Tubes:	Material	-	<del></del>	0.D	in. Th	ickness	Inches o	orgage. Nu	mber	Туре	(Str. or U)
				Johan San		hana of inc	hatad yasaa	la an aban	anda of he	eat exchange		
116	ms 11 -	# INC   .	to be comp	reced for		<del></del>		is, or chan		eat exchange		
11.	Shell:			.S. ) (Min. of Reng		in.	Corrosion Allowance _	in. Dia	ft.	in. L	ength	ft in
12.	Seams:	Long			н.т.'		R	.T		_ Efficie	ncy	
		6irth			H.T		R	.т		No. of	Courses _	
13.	Heads:							b) Material		т.	s	<del></del>
(a)	Top.bo	ttom, ends		Crown s Radius	Radius	Ratio		Hemis gle Radiu	•	Flat Diameter		
(ם)	Channe If rem	ı ovable, bo	its used	(a)	(b)	(c)		Other faste	ning			
									Orop W	( Deecn	be or attach ski	ft-1b
14.	Design	pressure	!			psi at			• Fat tem	p of		°F
		<u></u>	moleted fo			applicable.			·			
			<del></del>	<del></del>	3613 MIC. C			<del></del>	Locatio	on		
16.	Nozz 1e	S: Purpose (I	iniet,		· <del></del>					Reinforce	ment	
		Outlet, Dra		Number	Die, or Size	ту	pe M		Thickness	Mederical		low Attached
17.	Inspec	tion Manh	noles. N			Size		Locatio	on			
	Openin	gs: Hand	tholes, N			Size			on			
	c		•							Atta		
18.	Suppor	rts: Skii	(Yes or N	Lugs	(Number)	Legs _	(Number)	_ Other _	(Describe)			here & How)

^{1 -} If Postward Heat-Treated.

^{2 -} List other internal or esternal pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFIC... E HOLDERS' DATA REPORT FOR NUCL R PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. J.

Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM

#### 2117 Castle Hayne Road, Wilmington, North Carolina 28401

( Name and Address of NPT Certificate Holder )

(b)	Manufactured for : _	WNP 2	Richland, Washington 99352
	_	( Name and	Address of N Certificate Holder for completed nuclear component )

2. Identification - Certificate Holder's S/N of Part : A9157 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 919D258G003 Rev 17 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. N207 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

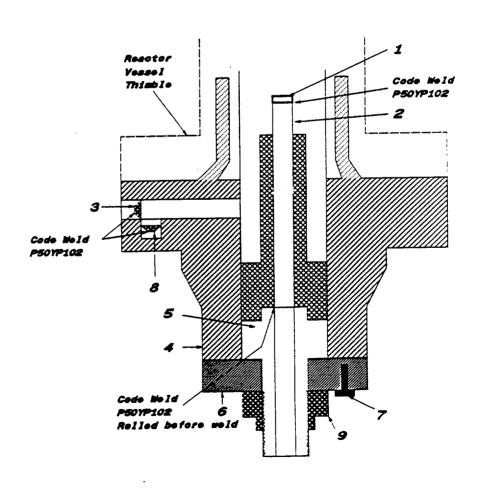
( Brief description of service for which component was designed )

Sheet 2 of 2

1. Cap 166B9274P001 SA182 - F304 3/8* thick x 1 1/16* OD

2: Indicator Tube 16689313P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness J.065" max. dia.

- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37° thick x 9 5/8° OD
- 5. Base 137C5311P001 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002, P003 137C8151P001, P002 SA182 - F304 1° thick x 5.0° OD x 1.75° ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2° dia. on 4 1/8° bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0,38° thick x 1.307° dia.
- 9. Nut 137C5934P001 XM - 19 SA479 1.30° thick x 2.62° dia.



# FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

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	7		3/01

_	+ G 23(0)
٠	Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
	2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder )
	(b) Manufactured for : WNP 2 Richland, Washington 99352  ( Name and Address of N Certificate Bolder for completed nuclear component )
2.	Identification - Certificate Holder's S/N of Part : A9618 Nat'l Bd. No. N/A .
	(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
	(h) Description of Part Inspected: Cylinder Tube & Flange
	(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1
3.	Standard port for use with Reactor. Hydrostatically tested at 1825 psi. min.
٠	
	Sheet 1 of 2
<i>!</i>	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).  Date: 03/15/94 Signed GE-NEBG-NF&CM-QA (SCA Representive)  Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: NPTN-1151
	Certification of Design for Appurtenance
	Design information on file atGE Company, San Jose, California
	Stress analysis report on file at <u>GE Company, San Jose, California</u>
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
Γ	Certification of Shop Inspection
	I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.  By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.  NC 1231, Ohio, WC 3686 PA  Inspector's Signature  NC 1231, Ohio, WC 3686 PA  Hational Board, State, Province And No.

Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

_	4-8 Incl. to be con								
	hell: Material	T C	Nominal	Co'	rrosion lowance i	n. Dia	ft in. L	ength 1	't i
S	ihel]: Material	1 . S pec. No. ) { Min. of R	ange Specified)						
			1		R.T.		Efficie	псу	x
S	eams: Long		1				No. of		
	Girth								
. }	Heads: (a) Material			T.S	(b) Ma		1.		
ļ	ocation ( Top	Crow		Elliptical	Concial Apex Angle		al Flat Diameter	Side to Pr ( conv. or	
a) [	Bottom, Ends ) Thi	ckness Radi	us Radius	Ratio					<del></del>
ьì °					Other faster	ing	(Describe or altach s		
	If removable, bolts	{Ma	terial, Spec. No., T.S.					iketch )	
. •	Jacket Closure:		( Describe as ogee at	nd weld, bar, etc. If	ber give dimensions,	f bolts, describe or s	iketch)		
			,			0.0	p Weight rpy Impact		ft-lb
	2				E7E	o F at	temp of		_ °F
1.	Design pressure	1250	ps	1 at	5/3				
tem	s 9 and 10 to be com	mpleted for to	ube sections						
 ) .	Tube Sheets: Static	onary. Mater	ial	Dia	a	Thicknes	is in. A	ttachment _	Weided, Bolte
•	Floati	ing Mater	(Kind & Sp ial	ec. No. ) Di	( Subject to pressu	Thicknes	is in. A	ttachment _	<u> </u>
,	Tubes: Material	,,,,g	2.2	in Thi	ckness	inches or gage.	Number	Туре	
•	Tubes: Material		0.0	10. 10.		_			(Str. or U)
	Shell: Material	T.S	Nominal Thickness				ftin.		ft
l .	Shell: Material(Kind &:	T.S Spec. No. ) (Min. of	Nominal Thickness Flange Specified)	in. A	orrosion 1lowance	in. Dia	ft in.	Length	
1.	Shell: Material(Kind &	T.S. Spec. No.) (Min. of	Nomina l Thickness Range Specified) t H.T.	in. A	orrosion 11 lowance	in. Dia	ftin. Effici	Length	x
1. 2.	Shell: Material(Kind &  Seams: Long	T.S Spec. No. ) (Min. of	Nominal Thickness Range Specified) H.T.	in. A	orrosion Nilowance	in, Dia	ftinEffici	Length ency Courses	x
1. 2.	Shell: Material(Kind &	T.S Spec. No. ) (Min. of	Nominal Thickness Range Specified) H.T.	in. A	R.T.   R.T.   (b)	in. Dia	ftin Effici No. of	Length ency Courses .S	x
1. 2.	Shell: Material (Kind & Seams: Long	T.S	Nominal Thickness Fange Specified)  H.T.  H.T.  H.T.	in. A	orrosion Nilowance	in. Dia	ftin Effici No. of T	Length ency Courses	x 
1. 2. 3.	Shell: Material (Kind & Kind &	T.SSpec. No.) (Min. of	Nominal Thickness Range Specified) H.T. H.T. H.T. wwn Knuckle Radius	T.SElliptical	R.T. R.T. (b) P	in. Dia	ftin Effici No. of T cal Flat Diameter	ency CoursesS Side to P { conv. o	ress.
1. 2. 3.	Shell: Material (Kind & Kind &	T.SSpec. No.) (Min. of	Nominal Thickness Range Specified) H.T. H.T. H.T. wwn Knuckle Radius	T.SElliptical	R.T. R.T. (b) P	laterialHemispheric Radius	ftin Effici No. of T cal Flat Diameter	ency Courses S Side to P	ress.
1. 2. 3.	Shell: Material (Kind & Kind &	T.SSpec. No.) (Min. of	Nominal Thickness Range Specified) H.T. H.T. H.T. wwn Knuckle Radius	T.SElliptical	R.T. R.T. (b) P	laterialHemispheric Radius	ft in Effici No. of I cal Flat Diameter(Desc.	ency CoursesS Side to P { conv. o	ress. r conc. )
). 2. 3. (a)	Shell: Material [Kind&: Seams: Long Girth Heads: (a) Materia Location Th Top,bottom,ends Channel If removable, bolts	T.S	Nominal Thickness Range Specified)  H.T.  H.T.  Why Knuckle Radius  (b)	T.S Elliptical Ratio(c)	R.T. R.T. (b) P Concial Apex Angle	taterial	ft in.  Effici  No. of  cal Flat Diameter  op Weight	ency CoursesS Side to P { conv. o	ress. r conc. )
(a) (b)	Shell: Material [Kind&]  Seams: Long  Girth  Heads: (a) Materia  Location Th Top,bottom,ends Channel If removable, bolts  Design pressure	T.SSpec. No.) (Min. of	Nominal Thickness Range Specified)  H.T.  H.T.  WMN Knuckle Radius  (b)	T.S in. A  Elliptical Ratio (c)	R.T. R.T. (b) P Concial Apex Angle	taterial	ftin.  Effici  No. of  Tal  Cal Flat Diameter  op Weight	ency CoursesS Side to P { conv. o	ress. r conc. )
(a) (b)	Shell: Material [Kind&: Seams: Long Girth Heads: (a) Materia Location Th Top,bottom,ends Channel If removable, bolts  Design pressure  ms below to be compl	T.S Spec. No.) (Min. of  l crockness Rad used (a)	Nominal Thickness Range Specified)  H.T.  H.T.  wm Knuckle Radius  (b)  vessels where	T.S Elliptical Ratio(c) psi at applicable.	R.T. R.T. (b) P Concial Apex Angle	laterial	ftin.  Effici  No. of  Tal  Diameter  op Weight arpy Impact	ency CoursesS Side to P ( conv. o	ress. r conc. )
(a) (b)	Shell: Material [Kind&]  Seams: Long  Girth  Heads: (a) Materia  Location Th Top,bottom,ends Channel If removable, bolts  Design pressure	T.S Spec. No.) (Min. of  l crockness Rad used (a)	Nominal Thickness Range Specified)  H.T.  H.T.  wm Knuckle Radius  (b)  vessels where	T.S Elliptical Ratio(c) psi at applicable.	R.T. R.T. (b) P Concial Apex Angle	laterial	ftin.  Effici  No. of  Tal Flat Diameter  op Weight arpy Impact temp of	ency CoursesS Side to P ( conv. o	ress. r conc. )
(a) (b) 4.	Shell: Material (Kind & Kind &	T.S Spec. No.) (Min. of  Cro cickness Rac cused (a) leted for all ts: Number	Nominal Thickness Range Specified)  H.T.  H.T.  WMN Knuck le lius Radius  (b)  vessels where	T.S Elliptical Ratio (c) psi at applicable.	R.T.  R.T.  (b) P  Concial Apex Angle  Other	laterial Hemispheric Radius Dr Dr Ch F at Lo	ftin.  Effici  No. of  Tal Flat  Diameter  op Weight arpy Impact  temp of	ency CoursesS Side to P ( conv. o	ress. r conc. )
(a) (b) 4.	Shell: Material [Kind&]  Seams: Long  Girth  Heads: (a) Materia  Location Th Top, bottom, ends Channel If removable, bolts  Design pressure  ms below to be compl  Safety Valve Outlet	T.S Spec. No.) (Min. of  Cro cickness Rac cused (a) leted for all ts: Number	Nominal Thickness Range Specified)  H.T.  H.T.  wm Knuckle Radius  (b)  vessels where	T.S Elliptical Ratio (c) psi at applicable.	R.T.  R.T.  (b) P  Concial Apex Angle  Other	laterial Hemispheric Radius Dr Dr Ch F at Lo	ftin.  Effici  No. of  Tal Flat  Diameter  op Weight arpy Impact  temp of	ency CoursesS Side to P ( conv. o	ress. r conc.)  ft-lb
11. 22. 33. (a) (b) Ite	Shell: Material (Kind & Kind &	T.S Spec. No.) (Min. of  Cro cickness Rac cused (a) leted for all ts: Number	Nominal Thickness Range Specified)  H.T.  H.T.  WMN Knuck le lius Radius  (b)  vessels where	T.S Elliptical Ratio (c) psi at applicable.	R.T.  R.T.  (b) P  Concial Apex Angle  Other	laterial Hemispheric Radius Dr Dr Ch F at Lo	ftin.  Effici  No. of  Tal Flat  Diameter  op Weight arpy Impact  temp of	ency CoursesS Side to P ( conv. o	ress. r conc.)  ft-lb
11. 22. 33. (a) (b)	Shell: Material (Kind & Seams: Long Girth Heads: (a) Materia Location Th Top,bottom,ends Channel If removable, bolts  Design pressure ms below to be compl Safety Valve Outlet Nozzles: Purpose (Inlet, Outlet, Drain)	T.S. Spec. No.) (Min. of  Cro ickness Rac used (a) leted for all ts: Number	Nominal Thickness Flange Specified)  H.T.  H.T.  Why Knuck le Radius  (b)  vessels where	T.S Elliptical Ratio (c) psi at applicable.	Corrosion R.T. R.T. (b) P Concial Apex Angle Other	laterial Hemispheric Radius Dr Ch F at Lo	ftin.  Effici  No. of  Cal Flat Diameter  (Description	ency CoursesS Side to P ( conv. o	ress. r conc. )  tch)  ft-lb  F
(a) (b)	Shell: Material (Kind & Kind &	T.S. Spec. No.) (Min. of  Cro ickness Rac used (a)  leted for all ts: Number  Number	Nominal Thickness Range Specified)  H.T.  H.T.  wwn Knuck le lius Radius  (b)  vessels where	T.S Elliptical Ratio (c)  psi at applicable. Size Size Size	e Materia	laterial	ftin.  Effici No. of  Tal Flat Diameter  op Weight arpy Impact temp of	ency CoursesS Side to P ( conv. o cribe or attach ske	ress. r conc. )  tch)  ft-1b  F
(a) (b) 4. Itee	Shell: Material (Kind & Seams: Long Girth Heads: (a) Materia Location Th Top,bottom,ends Channel If removable, bolts  Design pressure ms below to be compl Safety Valve Outlet Nozzles: Purpose (Inlet, Outlet, Drain)	T.S. Spec. No.) (Min. of  Cro ickness Rac sused (a)  leted for all ts: Number  Number  es, No. les, No.	Nominal Thickness Flange Specified)  H.T.  H.T.  Why Knuck le Radius  (b)  vessels where	T.S  Elliptical Ratio  (c)  psi at applicable.  Size Size	e Materia	laterial	ftin.  Effici No. of  Tall Flat Diameter  op Weight arpy Impact temp of	ency CoursesS Side to P ( conv. o cribe or attach ske	ress. r conc. )  tch)  ft-1b  F

^{1 - #} Postweld Heal-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

MYN6 FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

KJOS.

612310,

nufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

#### 2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder )

(b)	Manufactured for	:	WNP 2 Richland, Washington 99352  ( Name and Address of N Certificate Holder for completed nuclear component )	
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2. Identification - Certificate Holder's S/N of Part : A9618 Nat'l Bd. No. N/A

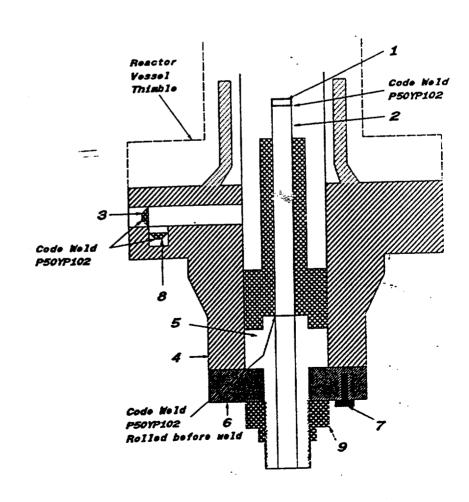
(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. ( Brief description of service for which component was designed )

- 1. Cap 166B9274P001 SA182 - TP316 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113' wall thickness 1.065' max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4° thick x 0.812° OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37° thick x 9 5/8° OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



FORM N-2 MANUEACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES

As required by the Provisions of the ASME Gode	
General Electric Company, Castle Hayne Rd (Name and address of Manufacturer	1. Wilmington, N. C. 6)23(0)
(Name and address of Manufacturer	of part)
Manufactured for General Electric Company, San Jose, Calif	ornia
(Name and sadress of Mandischurer of Complete	d line to an a surface with
entification-Manufacturer's Serial No. of Part 6502 Nat'l	Bd. No
Constructed According to Drawing No. 761E387G2 Drawing Prepared by	D. L. Peterson
•	
Description of Part Inspected Control Rod Drive, Model #7RDB144	4 Ci
	i
Applicable ASME Code: Section III, Edition 1971, Add and a date None,	Case No. 12011 Ciass. Eller
emarks: Standard part for use with Reactor. Hydrostation	cally tested at 1020 551
(Brief description of service for which component w	was dusigned)
minimum.	
·	
certify that the statements made in this report are correct and this vessel part or	appurtenance as defined in the Code con-
to the rules of construction of the ASME Code Section III.  applicable Design Specification and Stress Report are not the responsibility of	
acturer is responsible for furnishing a separate Design Specification and Stress r	Report if the appurtenance is not included
component Design Specification and Stress Reports)	
December 17 19 74 Signed GE, BWRSD - REM By (Manufacturer)	land land
December 17 19 74 Signed (Manufacturer)	Om. C. West
ficate of Authorization Expires June 20, 1975 Certificate of A	uthorization No. NPT - 462
CERTIFICATION OF DESIGN FOR APPURTENANCE (w	vhen applicable) 🕶 💮 💮
esign information on file at General Electric Co., BWRSD-REM, Cas	stle Navne Rd Wilmington
	l l
ress analysis report on file at General Electric Co., BWRSD-REM, C	Castle Hayne Rd., Wilmington
esign specifications certified by Vernon W. Pence Prof.	Eng. State Calif. Reg. No. 14488
ress analysis report certified by Vernon W. Pence Prof.	Eng. State Calif. Reg. No. 14488
CERTIFICATE OF SHOP INSPECTION	
CERTIFICATE OF SHOT MADI ECTION	
I, the undersigned, holding a valid commission issued by the National Board of	Boiler and Pressure Vessei Inspectors
Morth Carolina and employed by Depar	tment of Labor
State of North Carolina have inspected the part of	a pressure vessel described in this
December 1/ 19/4 and s	state that to the best of my knowledge
nd belief, the Manufacturer has constructed this part in accordance with the ANIE	ATTAINT, CADIESSED OF IMPRICAL CONCORN.
	neither the inspector not ma complete.
hall be liable in any manner for any personal injury of property damage or a loss	s of any kind arising from or connected
ith this inspection.	v a improbablyca se
December 17 19 74	HIK INTURMENTAL UN
Date December 17	8 4 11 11 11 11 11 11 11 11 11 11 11 11 1
E. Commissions _ MC 723.	PA. "C 1766, Chio
Inspector's Stenature Nation	onal Board, State, Province and No.

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# FORM N-2 MANUFACTURE IS DATA REPORT FOR NUCLEAR PAPT AND APPURTENANCES

As required by the Provisions of the ASME Code Rules Quidly Say
1. (a) Manufactured by General Electric Company, Castle Hayne Rd., Wilmington, N.C.
(b) Manufactured for General Electric Company, San Jose, California (Name and address of Manufacturer of completed nucleur component)
2. Identification-Manufacturer's Serial No. of Part6543Nat'l Bd. No
(a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson
(b) Description of Part Inspected Control Rod Drive, Model #7RDB144 C1
(c) Applicable ASME Code: Section III, Edition 1974, Addenda date None, Case No. 1361-1 Class T
3. Remarks: Standard part for use with Reactor. Hydrostatically tested at 1820 psi (Urtef description of service for which component was designed)
minimum
We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code coffers to the rules of construction of the ASME Code Section III.  The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenant Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not include in the component Design Specification and Stress Report.)
Date December 10, 19 74 Signed GF, BURSD - REM By Manufacturer)
Certificate of Authorization Expires June 20, 1975 Certificate of Authorization No. NPT - 462
CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)
Design information on file at General Electric Co., BURSD-REM. Castle Hayne Rd. Wilmington
Stress analysis report on file at General Electric Co., RWOSD-REM, Castle Hayne Pd., Wilmingto
Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 16483
Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488
CERTIFICATE OF SHOP INSPECTION
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of Morth Carolina have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on December 10, 19.74, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.  By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be hable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
Date December 10, 19 74  Commissions NC 723, PA. WC 1766, Ohio
National Board, State, Province and No.

# 4-8 Incl. to be completed for s			Cueronia				
Shell: MaterialT.S.	No	minui iekņess i	in. Allowan	icein. D	ia fr	in. Length	ft in.
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(b)							
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(Descript 22 of or					Char	ny Impact	(t-lb
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Design pressure 1250		P3					
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or a Managial T.	s	Nominal Thickness —	Corro in. Allow	sion vancein.	Dis ft	in. Length	ftin
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Seams: Long	S (Min. of Range	Nominal Thickness Specified)	R.T.	vancein.	Dia ft  Efficiency  No. of Cours	in. Length	;
, Shell: MaterialT. (Kind & Spec. No.)  Seams: Long	S (Min. of Range H.T. ¹	Nominal Thickness Specified)	R.T.	vancein.	Dia ft  Efficiency  No. of Cours	in. Length	;
, Shell: MaterialT. (Kind & Spec. No.)  Seams: Long	S	Nominal Thickness Specified)	in. Allow	wancein.  wancein.  (b) Materia  Conical	Dis ft  Efficiency  No. of Cours  Hemispheric	esT.S	Side to Perss
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Shell: MaterialT. (Kind & Spec. No.)  Seams: Long  Girth  Heads (a) Material  Location Thick: (a) Top, bottom, ends	S	Nominal Thickness Specified  T.S Knuckle Radius	R.T	(b) Materia  Conical Apex Angle	Disft Efficiency No. of Cours Hemispheric Radius Other fastenin	esT.S ral Flat Diameter  Good Weight	Side to Press (Conv. or Conc
Shell: MaterialT. (Kind & Spec. No.)  Seams: Long  Girth  Heads (a) Material  Location Thick: (a) Top, bottom, ends	S	Nominal Thickness Specified  T.S Knuckle Radius	R.T	(b) Materia  Conical Apex Angle	Disft Efficiency No. of Cours Hemispheric Radius Other fastenin	esT.S al Flat Diameter  (Describe of Weight arpy lmpact	Side to Press (Conv. or Conc
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Shell: MaterialT.  (Kind & Spec. No.)  Scams: Long  Girth  Location Thick:  (a) Top, bottom, ends  (b) Channel  If removable, bolts used (a)  4. Design pressure  tems below to be completed for a	S. (Min. of Range  H.T.¹  H.T.¹  Crown  Radius	Nominal Thickness — Specified)  T.S.  Knuckle Radius  (b) — psi	R.T	(b) Materia Conical Apex Angle	Disft Efficiency No. of Cours Hemispheric Radius Other fastenin	esT.S al Flat Diameter  (Describe of Weight arpy lmpact	Side to Press (Conv. or Conc
Shell: MaterialT.  (Kind & Spec. No.)  Scams: Long  Girth  Location Thick:  (a) Top, bottom, ends  (b) Channel  If removable, bolts used (a)  4. Design pressure  tems below to be completed for a	S. (Min. of Range  H.T.¹  H.T.¹  Crown  Radius	Nominal Thickness — Specified)  T.S.  Knuckle Radius  (b) — psi	R.T	(b) Materia  Conical Apex Angle	Disft Efficiency No. of Cours Hemispheric Radius Other fastenin	esT.S al Flat Diameter  (Describe of Weight arpy lmpact	Side to Press (Conv. or Conc
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# FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES

:. <i>:</i>	As required by the Provisions of the AME, Code Rules
	Manufactured by General Electric Company, Castle Hayne Rd., Wilmington, N. C.
1	(Name and address of Manufacturer of part)
	(b) Manufactured for General Electric Company, San Jose, California
	(Name and address of Manufacturer : 1 completed nuclear component,
2.	Identification-Manufacturer's Serial No. of Part 5249 Nat'l Bd. No
	(a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson
	(b) Description of Part Inspected Control Rod Drive, Model #7RDB144 Cl
	(c) Applicable ASME Code: Section III, Edition 1971, Addenda date None, Case No. 1361-1 Class 1
3.	Remarks: Standard part for use with Reactor. Hydrostatically tested at 1820 rs.  (Brief description of service for which component was designed)
•	minimum.
foi	We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code con-
(T	he applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An applicable
M.	inufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not include the component Design Specification and Stress Report.
D-	December 30 19 74 Signed GE, BWRSD - REM (Manufacturer)  Lung 20 10 75
Ţ	(Manufacturer)
_`	rificate of Authorization Expires June 20, 1975 Certificate of Authorization No. MPT - 462
	CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)
	Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington
	Stress analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington
	Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488
	Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488
	CERTIFICATE OF SHOP INSPECTION
	I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessei Inspectors
	and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this
,	of State of Morth Carolina have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on December 30 19 74, and state that to the best of my knowledge
;	and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III.  By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.
1	Date December 3019_74
	4 K 20 .00
: \	Commissions NC 723 PA NC 1766 Ohio Inspector's Signature Commissions National Board, State, Province and No.

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FIRM H-2 MPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPORTSUMCES* 6)23/01
As required by the Provision of the ASME Code Rules. Section III. Div. 1

AS required by the Provision of the ASAE Code Rives, Section 111, Liv. 1
1. Manufactured & Certified by: GE Company, 2117 Castle Bayne Rd., Wilmington, N.C. 28402  (Name and Address of NPT Certificate Holder)  (b) Manufactured for: WNP-2, RICHLAND, Wa. 99352  (Name and Address of N Certificate Holder for completed nuclear component)
·
2. Identification-Certificate Holders's S/N of Part: A8745 Nat'l Bd. No. N/A
(a) Constructed According to Drawing No: 919D258G003 Dwg. Prepared by D. L. Peterson
(b) Description of Part Inspected: CYLINDER TUBE & FLANGE
(c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75 Case No. 1361-2 Class 1
REMARKS: Sub-assembly of Control Rod Drive for use with reactor.  (Brief description of service for which component was designed)  Hydrostatically tested at 1825 psi. min.
*Sheet 1 of 2
We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Bolder for parts. An NPT Certification Bolder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).  DATE: 12/31 ,19 88 Signed GE-NEBG-NFSCM-QA By AMACUMULE (NPT Certificate Holder)
Ortificate Of Authorization Expires: 6/16/90 Certification of Authorization No.: NPT N-1151
CREDICATION OF DESIGN FOR APPRICABLES
Design information on file at GE COMPANY, SAN JOSE, CALIFORNIA
Stress analysis report on file at GE COMPANY, SAN JOSE, CALIFORNIA
DC22A6253 Rev. 0 Design specification certified by BJORN HAARING Prof. Eng. State CALIF. Reg. No. 15570 DC22A6254 Rev. 0.
Stress analysis report certified by EDWARD YOSHIO Prof. Eng. State CALIF. Reg. No. M018646
CHETTERION OF SHOP INSPECTION
I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of NCRIH CAROLINA and employed by DEPARIMENT OF LABOR of STATE OF NORTH CAROLINA have inspected the part of a pressure vessel described in this Partial Data Report on /2 - 3/ 19%, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME code Section III.  By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any long arising from or connected with this inspection.
12.31,1988 1.7. Signature NC 779, PAWC2L60, OHIO National Board, State, Province and No.

* lemental sheets in form of lists, sketches or drawing may be used provided (1) size is _____/2" X 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKSS"

(10/77)

VERIFIED & ACCEPTED DIA THE R.I. Inspector Date

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11. Shell: Material (Kind&Spi  12. Seams: Long Girth  13. Heads (a) Material Location (a) Top, Bottom, Ticked (b) Channel	T.S. sc.No.) ( H.T.1 H.T.1 sl cnkese R	Thick Min.ofRa rown k	R.T. R.T. T.: (nucle fadius	in. Allows cified)  SElliptical Ratio	Efficiency_ lo. of Cour- (b) Concial Apex Angle	Diaft  Bes_ Material Homispher B Radius  tening (Description)	in Length  in Length  ricel Fat  Diameter	ftin.  ftin.  I.S Side to Press (Conv.or Conc.)
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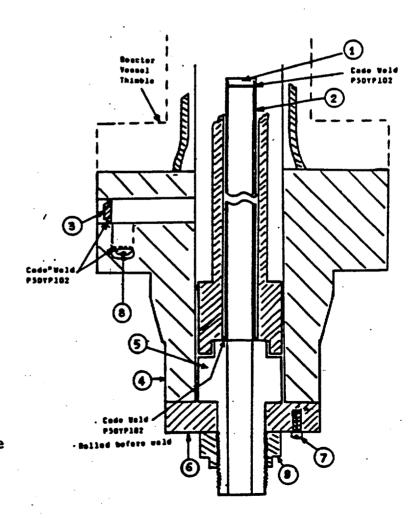
² List other internal or external pressure with conincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPORTEDIANCES* 612310.

As required by the Provision of the ASME Code Rules, Section III, Div. I

. Anuractured & Certified by: GE Company, 2117 Castle Hayne Rd., Wilmington, N.C. 28402
(b) Manufactured for: WNP-2, RICHLAND, Wa. 99352
(Name and Address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holders's S/N of Part: A8745 Nat'l Bd. N. N/A
(a) Constructed According to Drawing No: 919D258G003 Dwg. Prepared by D. L. Peterson
(b) Description of Part Inspected: CYLINDER TUBE & FLANGE
(C) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75, Case No. 1361-2 Class 1
REMARKS: Sub-assembly of Control Rod Drive for use with reactor.
(Brief description of service for which component was designed) Hydrostatically tested at 1825 psi. min.
*Sheet 2 of 2

- 1. Cap 167A2343P1 SA182-F304 3/8 thick X 1 1/16 CD
- ndicator Tube 104B1336P3
  A312-TP316
  3/4 sch 40-seamless pipe
  0.113 wall thickness
  1.065 max. dia.
- 3. Plug 159All76Pl SAl82-F304 1/4 thick x 0.812 CD
- 4. Flange 919D610P1 (719E474)
   SA182-F304
   3.37 thick x 9 5/8 OD
- 5. Head 129B3539P3, P5 SA182-F304 7/8 thick x 2.875 Dia.
- 6. Ring Flange 114B5122P2 SA182-F304 1* thick x 5.0 OD x 1.75 ID
- 7. Cap Screw 117C4516P2 SA193-B6 6 ea. 1/2 dia. on 4 1/8 bolt circle
- 8. Plug 175A7961P1 A182-F304 J.38 thick x 1.307 dia.
- 9. Nut 114B5460P1 SA193-B8A 1.30 thick x 2.62 dia.



FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. J 1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM 6/23/01 2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder ) Richland, Washington 99352 (b) Manufactured for : WNP 2 ( Name and Address of N Certificate Holder for completed nuclear component ) 2. Identification - Certificate Holder's S/N of Part : A9539 Nat'l Bd. No. N/A (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u> (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. ( Brief description of service for which component was designed ) Sheet 1 of 2 We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ). Signed GE - NEBG - NF & CM - QA Date: 04/08/94 ( NPT Certificate Holder ) Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: NPT N - 1151 Certification of Design for Appurtenance Design information on file at ______ GE Company, San Jose, California Stress analysis report on file at <u>GE Company</u>, San Jose, California Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u> Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u> Certification of Shop Inspection

I. the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on 3/2. 1994. and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

1994 Juone P Energy Inspector's Signature NC 1231, Ohio, WC 3686 PA National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

lte	ms 4-8 I	ncl. to b	e completed	for sing	le wall ves	sels, jacket	s vessels, or	shells of	heat ex	changers.			
4.	Shell:		T , ind & Spec. No. )			in. A1	rrosion lowance	in. Dia	ft.	in. Le	ngth	_ ft	- 1n
5.	Seams:	Long			н.т. <u> </u>		R.T.			Efficien	тсу	<del></del>	<b>X</b>
					н.Т		R.T.			No. of C	Courses _		
6.	Heads:	_					(b) M	aterial		1.5	i		-
	Location.	n ( Top Ends )	Thickness	Crown		Elliptical Ratio	Concial Apex Angle	Hemispher	ical		Side to	Press.	
(b)			. 14				Other faste	ning					-
			olts used _	( Material	, Spec. No., T.S.	Size Number)	other radio		( Des	onbe or attach si	uetch )		
				( De:	·		bar give dimensions,	(	Prop Wei Charpy I	ght mpact		•	b
8.	Design	pressure	2	1250	ps	i at	575	<u>F</u>	at temp	of		F	
			e completed										
9.	Tube Si	neets: S	tationary.	Material Material	( Kind & Sp	016 ec. No. 1	3 . { Subject to press:	Thicki ure) Thicki	ness	inAt: inAt:	tachment tachment	(Weided, Bo	oited 1
10.	Tubes:						ckness						
Ite	ems 11 -	14 incl.	to be comp	leted for	inner cham	bers of jack	eted vessels.	or channel	s of hea	it exchange	rs.		
		Į.)	Gnd & Spec. No.	(Min. of Rang	e Specified )	in. A	orrosion llowance			in. L			A.
12.	Seams:				1					- No. of			
13.	Heads:	(a) Mat	erial			T.S	(b) )		_				-
	) Top.bo	ttom, ends	Thickness		Knuckle Radius	Elliptical Ratio	Concial Apex Angle	Hemisphe Radius	rica I	Flat Diameter			) 
( b	) Channe If rem	::  ovable, b	olts used (	a)	(b)	(c)	Oth	er fastenin	g	( Descn	be or attach :	iketch )	-
									Drop We Charpy	,		ft-1	Б
	0		2			gsi at		0	at temp	_		° F	
		pressure				applicable.							
_					30.13 WHO. 0				Locatio	n			
15. 16.	_	Valve UI S: Purpose Dutlet, C		Anmper	Dia_ or Size				kness	Seinforcer Material		Чоw Attached	
17.	Inspec Openii	ngs: Ha	ndholes, N	o o o.		Size Size		Location					
18.	. Suppo		irt	Lugs	(Number)	Legs	(Number)	Other	Describe (	Attac		Where & How)	- [

^{1 - #} Postweid Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

DODE FOR MUCLEAR PART AND APPURTENANCES* FOR

M N-2 NPT CERTIF	CATE	HOLDERS, D	AIP	KEP	OKIF	OU NO	i Crèair i		TTT	Die	T	
M N-2 NPI CERTIF	- tha	Provision	of	the	ASME	Code	Rules,	Section	III,	$\nu_{xy}$ .	- 0	
As reduired of	A CITE	ITUVISION	91				-			- X7. 1		/14

Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM

2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder )

Richland, Washington 99352 WNP 2 ( Name and Address of N Certificate Holder for completed nuclear component ) (b) Manufactured for : _

Nat'l Bd. No. NA 2. Identification - Certificate Holder's S/N of Part : A9539

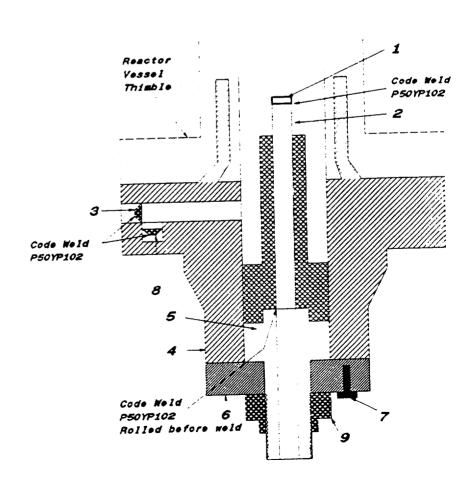
(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. ( Brief description of service for which component was designed )

- 1. Cap 166B9274P001 SA182 - TP316 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113' wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37° thick x 9 5/8° OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1 8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30" thick x 2.62" dia.



## FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

	6)22(0)
	Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF'& CM)
	2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Bo.der )
	(b) Manufactured for : WNP 2 Richland, Washington 99352  ( Name and Address of N Certificate Holder for completed nuclear component )
2.	Nat'l Bd. No. N/A
۲.	(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
	Cylinder Tube & Flange
	(c) Applicable ASME Code: Section III. Edition 1974, Addenda Date W75, Case No. 13072 Class
3.	REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  ( Brief description of service for which component was designed )
	Sheet 1 of 2
<b>~</b>	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).  Date: O4/08/94  Signed GE-NEBG-NF&CM-QA  (NPT Certificate Holder)  Sc Ox Representive)  Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: NPT N-1151
	Certification of Design for Appurtenance
	Design information on file at <u>GE Company, San Jose, California</u> Stress analysis report on file at <u>GE Company, San Jose, California</u>
	•
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	OC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
_	
Γ	Certification of Shop Inspection
	I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.  By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer concerning the part described in the Partial Data Report.

4/8 1994 June P Enva NC 1231, Ohio, WC 3686 PA National Board, State, Province And No.

connected with this inspection.

shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

Item:	s 4-8 I	ncl. to be comp	oleted for sing	le wall ves	sels, jackets	vessels, or	shells of heat	exchangers.	
4.	Shell:	Material (Kind & Spe	T.S. ic. No.) (Min. of Range	Nominal Thickness Specified)	in. All	rosion owance i	n. Dia ft	in. Length	ft in
<b>5</b> .	Seams:	Long		н.Т. ¹		R.T		Efficiency	<u> </u>
		Girth		H.T		R.T		No. of Course	s
6.	Heads:	(a) Material			T.S	(b) Ma	iterial	T.S	
	l ocatio		Crown	Knuck le	Elliptical Ratio	_	Hemispherical		to Press.
(b)	If remo	ovable, bolts u	sed			Other faster	ning		
		Closure:	( Material	, Spec. No., T.S.				Describe or attach sketch )	
•	Jaunes		(De	scribe as ogee ar	nd <del>wel</del> d, bar, etc. If b	ar gwe dimensions,	if boits, describe or skato Drop Na Charpy	h) Meight / Impact	ft-1b
8.	Design	pressure	1250	ps	i at	575	_ F at tem	np of	F
Iten	ns 9 and	d 10 to be comp	leted for tube	sections					
		Floatin	g. Material	( Kind & Sp	Dia		Thickness _	in. Attachme	ent
0.	Tubes:	Material		0.D	in. Thic	kness	inches or gage	lumber	(Str. or U)
		(Kind & Sp	sec, No. ) (Min. of Hans	je Specmed ) 1	in. Al			t in. Length Efficiency _	
12.	Seams:	Long		1				No. of Cours	
					T.C.			T.S	
	Loc	·	Crown ckness Radius	Knuck le	Elliptical Ratio		Hemispherical		to Press.
(b)	Channe If rem	el movable, bolts	used (a)	(b)	(c)	Othe		(Describe or all Weight	
14.	Design	2 n pressure			psi at		•	mp of	F F
Ite	ms belo	ow to be comple	ted for all ves	sels where	applicable.				
15.	Safety	y Valve Outlets	: Number		Size		Locat	ion	
16.	Nozz 1e	es: Purpose (inlet, Outlet, Drain)	Number	Dia. or Size	туре	Materia	Thickness	Reinforcement Material	How Attached
17.	Inspec Openii	ction Manholes ngs: Handhole Threaded	s, No		Size		Location Location		
18.	Suppor		Lugs	(Number)		(Number)	Other(Describe	Attached _	(Where & How)

^{1 -} If Postweid Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

OR MUCHEAR DART AND APPURTENANCES* F

ORM N-2 NPT CERTIFICATE As required by the	Provision of the	ne ASME Code	Rules, Section	Buldus S	با بير
				612	23/0

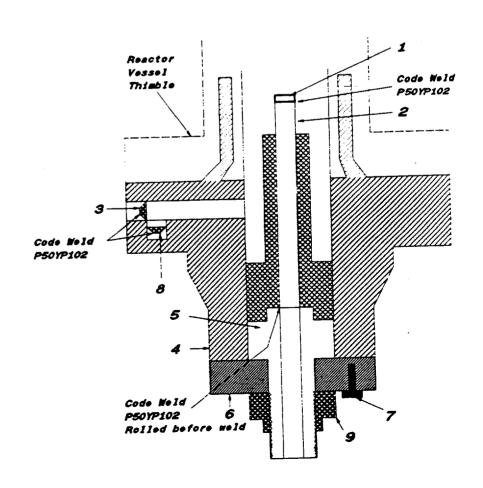
		GENER CM)
	a land this is	General Electric Company Nuclear Fuel & Components Manufacturing(GE NF & CM)
1.	Manufactured & Lertified by :	deliterar Elective Service

2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder )

(b)	Hanufactured for	WNP 2	Richland, Washington 99	9352 lder for completed nuclear	component )
-----	------------------	-------	-------------------------	------------------------------------	-------------

- 2. Identification Certificate Holder's S/N of Part : A9541 Nat'l Bd. No. N/A
  - (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
  - (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
  - (c) Applicable ASME Code: Section III , Edition 1974 . Addenda Date W'75 . Case No. 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. ( Brief description of service for which component was designed )

- 1. Cap 166B9274P001 SA 182 - TP316 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4° sch 40 - seamless pipe 0.113' wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA 182 - F304 3.37" thick x 9 5/8" OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002 SA 182 - F304 1° thick x 5.0° OD x 1.75° ID
- 7. Cap Screw 117C4516P002 SA 193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 114B5460P001. XM - 19 SA479 1.30° thick x 2.62° dia.



MYN6 Ruldip Euros

FORM W-2 HPT CHRIFTCATE HOLLERS' DATA REPORT FOR NUCLEAR PART AND APPRETRIMECES* 6/23/0/
As required by the Provision of the ASME Code Rules, Section III. Div. 1

As required by the Provision of the ASME Code Rules, Section III, Div. 1
Manufactured & Certified by: GE Company, 2117 Castle Bayne Rd., Wilmington, N.C. 28402  (Name and Address of NPT Certificate Holder)  (b) Manufactured for: WNP-2, RICHLAND, Wa. 99352  (Name and Address of N Certificate Holder for completed nuclear component)
2. Identification-Certificate Holders's S/N of Part: *A8460 Nat'l Bd. No. N/A
(a) Constructed According to Drawing No: 919D258G003 Dwg. Prepared by D. L. Peterson
(b) Description of Part Inspected: CYLINDER TUBE & FLANGE
(c) Applicable ASME Code: Section III, Edition 1974, Addenda Date W'75 Case No. 1361-2 Class 1
REMARKS: Sub-assembly of Control Rod Drive for use with reactor.  (Brief description of service for which component was designed)  Bydrostatically tested at 1825 psi. min.
*Sheet 1 of 2
We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report).
DATE: 12/31 ,19 88 Signed GE-NESC-NF1CM-OA By MAC MINIT
Obrtificate Of Authorization Expires: 6/16/90 Certification of Authorization No.: NPT N-1151
CENTURICATION OF DESIGN FOR APPURISHED
Design information on file atGE COMPANY, SAN JOSE, CALIFORNIA
Stress analysis report on file at GE COMPANY, SAN JOSE, CALIFORNIA DC22A6253 Rev. 0
Design specification certified by BJCRN HAABERG Prof. Eng. State CALIF. Reg. No. 15570 DC22A6254 Rev. 0.
Stress analysis report certified by EDWARD VOSHIO Prof. Eng. State CALIF. Reg. No. M018646
CHETIFICATION OF SHOP DESPECTION
I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure inspectors and/or the State or Province of NORTH CAROLINA and employed by DEPARTMENT OF LABOR of STATE OF NORTH CAROLINA have inspected the part of a pressure vessel described in this partial Data Report on /2-3/ 19%, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME code Section III.
By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, weither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.
12-31 ,1988 17. Thomas Mi 779, PAWC2LbU. Unic.  National Board, State, Province and No.
MIE Majecux a signature matterns and sier sier
lemental sheets in form of lists, sketches or drawing may be used provided (1) size is

" lemental sheets in form of lists, sketches or drawing may be used provided (1) size is /2" X 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKSS"

-18-89 ctor Date

R.I. Inspector

VERIFIED & ACCEPTED

(10/77)

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Ite	ms 4-8	Incl.	to be c	omplete	ed for	single	wall v	/essels	. jeckets	vessels. o	shells of he	at avob	200020
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4.	Shell:	Mate	ial	t.s	1	Thicknes	•in	. Allo	wence	n Dia	ftin.Leng	th ft	. in.
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5.	Seams :	Long			н.т.	· <del>-</del>		R.T	•	Effic	Lency		3
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6.	Heads:	(-)	(ateria)			`	<u> </u>	ĸ.ı	/b\Matani	No. of	f Courses		•
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L	ocation	(Top			Crown	Knuck1	e Elli	intical	Concial	Henisobe	rical Flat	Side	to Passa
	Bottom,	Ends)	Thickne	ess F	Redius	Radius	Ra	tio	Apex Ang)	e Radi			.or conc.)
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1	f remov	able,	bolts u	aed					Other fee	tening			
7	Jacket	Close	:81L	erial,	Spec .No	., T.S.	Size	Number	<b>)</b>	(Desc	ribe or attac	h sketc	h)
••	Jecker	CIUS	(Deacr	ibe ee	0000	od wold	bon o	40 If	han give	44	, if bolts, de		
			(5-551)		uyee e	PIG MOTO	,021,6	rcc. 11	ner dise	OTMOURTOUS!	, it Dolts, Ge	SCI1D6	or shetch)
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Ite	ms 11-1	4 inc.	. to be	comple	eted fo	r inner	chamb	ers of	jacketed	vessels, or	channels of	heat ex	changers
				_	Non	inel		Corros	ion				
11.	Shell:	Mater	ial	_ ^{T.5.} _	Thi	ckness_	_in .	Allows	ncein.	Diaft	inLength	ft	in.
		(K 2)	d&Spec .	NO.) (	(Man.of	Range S	pecifi	(bed)					
12.	-Seams:	Long		н.т. ¹	1	е т			fficiens				
		Girth		-H.T.			•		o. of Cour	ses	³		
13.	Heads'	(a) Mi	terial_				T.S.	·	(b)	Material	rical Fat	T.S.	
L	ocation				Town	Knucle	Elli	ptical	Concial	Henisphe	rical Fat	Side	to Press
(#	niop, b	ottom,	, Tienk	028 R	Radius	Redius	Re	tio	Apex Angl	e Radiu	Diamete	r (Conv	.or Conc.)
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	<del></del>	<u> </u>											
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				-									
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	Onrige	, ora:	u1/	Number	. ט	ia or S	128	i ype	Material	Thickness	Material		Attached
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;	, ——						_					_	
17.	Inspec	tion	Manhol:	es, No.	,		Size		•	Location			
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	- '	-	Thread	ed, No.	·		Size			Location			
	_			- '			_					<del></del>	
18.	Suppor	ts: S				_L ugs		Leg		Other	Attached_	<u> </u>	
1 -	£ D+	_ 9 . 4 . 4	(Yea	B OF N	io)	. (Ni	mper)		(Number)	(Desc:	ribe) (	Where &	How)
* I	T POSTW	eta He	at-Trea	ted.									

^{2 .}List other internal or external pressure with conincident temperature when applicable.

FORM 5-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCE As required by the Provisions of the ASME Code Rules General Electric Company, Castle Hayne Rd., Wilmington, N. C. (Name and address of Manufacturer of part) General Electric Company, San Jose, California (Name and address of Manufactures of completed nuclear component) 7084 Identification-Manufacturer's Serial No. of Part Nat'l Bd. No. (a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by_ D. L. Peterson (b) Description of Part Inspected Control Rod Drive, Model #7RDB144 C1 (c) Applicable ASME Code: Section III, Edition 1971, Addenda date None, Case No. 1361-1 Standard part for use with Reactor. Hydrostatically tested at 1020 psi (Brief description of service for which component was dusigned) minimum. We certify that the starements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III. (The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.) 19 75 Signed GE, BWRSD - REM (Manufactures) June 20, 1975 licate of Authorization Expires_ NPT - 462 Certificate of Authorization No. CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable) Design information on file & General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington Stress analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488 Stress analysis report certified by.... Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488 CERTIFICATE OF SHOP INSPECTION I, the undersigned, holding a valid commission issued by the National Board of Builer and Pressure Vessel Inspectors smil/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on ... 19_75 <u> June 19</u> ., and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected

Commissions.

TIC 1766 Obto

National Board, State, Province and No.

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4.	Shell: M Seams: lieads ( (a) Top. (b) Char if remov	Location , bottom, entre bottom pressure  to be con  Valve Out at	T.S. h Spec. No.) (M  Thickness ends  s used (a)	H.T. ¹ Crown Radius	Nominal Thickness Specified)  T.S.  Xnuckie Radius  (b)  psi	R.T	Location	Diaft Efficiency No. of Coulon Hemisphere Radius Other fasteni	rses	Side (Con	r to Press. v. or Conc.:
4.	Shell: M Seams: Heads ( (a) Top. (b) Char if remov  Design  As below  Safery  Nozzle  Purpos	Long  Girth (a) Material Location , bottom, connel vable, bolt  pressure ² to be con  Valve Out	T.S. h Spec. No.) (M  Thickness ends  s used (a)	H.T. ¹ Crown Radius	Nominal Thickness Specified)  T.S.  Xnuckie Radius  (b)  psi	R.T	Location	Diaft Efficiency No. of Coulaid	rsesT.S. rical Fist Biamete  Orop Weight Charpy Impact_ or temp. of	Side (Con	actchi
4.	Shell: M Seams: Heads ( (a) Top. (b) Char if remov  Design  As below  Safery  Nozzle  Purpos	Location , bottom, connel pressure ² to be con Valve Out at the (Inlet,	T.S. h Spec. No.) (M  Thickness ends  s used (a)  appleted for all  lets: Number	H.T. ¹ Crown Radius	Nominal Thickness Specified)  T.S.  Knuckie Radius  (b)  psi nere applic  Size	R.T	(b) Mater Contest Apex Angle	Diaft Efficiency No. of Coulonial	rsesT.S rical Flat blamete  rg (Describe brop Weight Charpy Impact_ at temp. of Rainforcemen Material	Side (Con	eto Prese.  v. or Conc.:  fte.b
4.	Shell: M Seams: Heads ( (a) Top. (b) Char if remov  Design  As below  Safery  Nozzle  Purpos	Location , bottom, connel pressure ² to be con Valve Out at the (Inlet,	T.S. h Spec. No.) (M  Thickness ends  s used (a)  appleted for all  lets: Number	H.T. ¹ Crown Radius	Nominal Thickness Specified)  T.S.  Knuckie Radius  (b)  psi nere applic  Size	R.T	(b) Mater Contest Apex Angle	Diaft Efficiency No. of Coulon Hemispher Radius Other fasteni	rsesT.S. rical Fist Biamete  Orop Weight Charpy Impact to temp. of Rainforcement Material	Side (Cun	eto Prese.  v. or Conc.:  fte.b
4.	Shell: M Seams: Heads ( (a) Top. (b) Char if remov  Design  As below  Safery  Nozzle  Purpos Outlet	Long	T.S. h Spec. No.) (M  Thickness ands a used (a)  spleted for all  lets: Number	H.T. ¹ Crown Radius  vessels wi	Nominal Thickness Specified)  T.S.  Knuckie Radius  (b)  psi nere applic  Size	R.T	Location	Diaft Efficiency No. of Coulon	in. l.engt	Side (Con	to Presm v, or Conc.: setch: fte.b
3.	Shell: M Seams: Heads ( (a) Top, (b) Char if remov  Design  Safety  Nuzzle  Purpus  Outlet	Long	T.S. h Spec. No.) (M  Thickness ands a used (a)  spleted for all  lets: Number	H.T. ¹ Crown Radius  vessels wi	Nominal Thickness Specified)  T.S.  Knuckie Radius  (b)  psi nere applic	R.T	Location	Diaft Efficiency No. of Coulon	rsesT.S. ricel Flat Blamete  rg (Describe Prop Weight Charpy Impact at temp. of Reinforcemen Material	Side (Con	to Presm. v. or Conc.:  aetch:  ft- b
4.	Shell: M Seams: Heads ( (a) Top, (b) Char if remov  Design  Safety  Nuzzle  Purpus  Outlet	Long	T.S. Spec. No.) (M  Thickness ands  s used (a)  pleted for all  lets: Number  Number	H.T. ¹ Crown Radius  veysels wi	Nominal Thickness Specified)  T.S.  Xnuckie Radius  (b)  psi nere applic  Size  Nize	R.T	Location	Diaft Efficiency No. of Coulon Hemispher Radius Other fasteni	rsesT.S. rical Fist Biamete  Orop Weight Charpy Impact to temp. of Rainforcement Material	Side (Con	to Presm. v. or Conc.:  aetch:  fte.h  F

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	FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*  As required by the Provision of the ASME Code Rules, Section III, Div. I
	6/25(0)
	Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)
• •	2117 Castle Hayne Road, Wilmington, North Carolina 28401  ( Name and Address of NPT Certificate Bolder )
	(b) Manufactured for : WNP 2 Richland, Washington 99352  ( Name and Address of N Certificate Holder for completed nuclear component )
	Nat'l Bd. No. NA
۷.	(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
	Cylinder Tube & Flange
	(c) Applicable ASME Code: Section III. Edition 1974. Addenda Date W'75. Case No. 1361-2 Class 1
3.	Standard part for use with Reactor. Hydrostatically tested at 1625 pst. min.
	Sheet 1 of 2
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).  Date: 04/08/94 Signed GE-NEBG-NF&CM-QA By SC OR Representive )  Certificate of Authorization Expires: 6/16/96 Certification of Authorization No.: NPTN-1151
Г	Certification of Design for Appurtenance
	Design information on file atGE Company, San Jose, California
	Stress analysis report on file at <u>GE Company</u> , San Jose, California
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
L	
Г	Certification of Shop Inspection
	I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.  By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, signing the certificate in the Partial Data Report. Furthermore, neither the Inspector nor his employer concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer concerning the part described in the Partial Data Report.
	connected with this inspection.  NC 1231, Ohio, WC 3686 PA  We see the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the s

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

Date

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	h	-	1				No. of Cou	rses
GIFT	n			T S	 (b) Mat	erial	T.S.	
location ( T	on.	Crown		Elliptical	Concial	Hemispherical	Flat 5	ide to Press. conv. or conc. )
Bottom, Ends	) Thickness		Radius	Ratio		Radius		
If removable	, bolts used		Spec. No., T.S. S	Size Number)	Other fasten	ing	escribe or attach sketc	sh)
Jacket Closu	ire:	•			ner cise dimensions. I	boits, describe or sketch	1)	
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^{1 - #} Postweld Heat-Treated.

^{2 -} Last other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*
As required by the Provision of the ASME Code Rules, Section III, Div. I.

6/23/01

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

# 2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Bolder )

/h)	Manufactured for	:	WNP 2	Richland, Washington 99352	component
(0)	manu, actures 10.	·	( Name and	d Address of N Certificate Holder for completed nuclear	Componenc

2. Identification - Certificate Holder's S/N of Part : A9482 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson

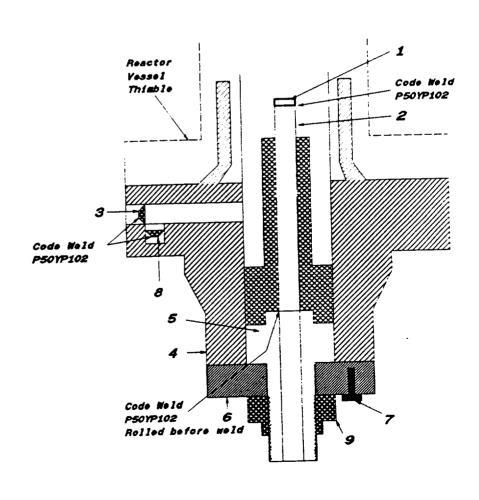
(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

( Brief description of service for which component was designed )

- 1. Cap 166B9274P001 SA 182 - TP316 3/8* thick x 1 1/16* OD
- Indicator Tube 167B4908P001 SA312 - TP316 3/4° sch 40 - seamless pipe 0.113° wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37° thick x 9 5/8° OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2' dia. on 4 1/8' bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30" thick x 2.62" dia.



MYN6 FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES As required by the Provisions of the ASME Code Rules Cularo Sur 623101 General Electric Company, Castle Hayne Rd., Wilmington, N. (Name and address of Manufacturer of purt) General Electric Company, San Jose, California (Name and address of Manufesturer of completed nuclear component) 2. Identification-Manufacturer's Sezial No. of Part 6229 (a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson (b) Description of Part Inspected Control Rod Drive, Model #7RDB144 Cl (c) Applicable ASME Code: Section III, Edition 1971 , Addenda date None , Case No. 1361-1 Class 1 Standard part for use with Reactor. Hydrostatically tested at 1820 psi 3. Remerker (Brief description of service for which component was designed) minima. GIOTA TOTAL DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTR We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III. (The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.) 19 75 Signed GE, BWRSD - REM June 20, 1978 Certificate of Authorization Expires. NPT - 462 Certificate of Authorization No. . CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable) Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington Stress analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd. Wilmington Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. 14488 Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488 CERTIFICATE OF SHOP INSPECTION I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor ol State of North Carolina have inspected the part of a pressure vessel described in this July 31 19/5 miacturer's Partial Data Report on. ., and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind erising from or connected

1975 July 31 biépéctor's Signature

with this Inspection.

NC 723 PA PC 1766 Obio Commissions National Board, State, Prevince and No.

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Shell: Seaman  (a) To (b) Ch  If rem  . Design  ems belo  S. Safer  S. Nozzi  Purpo Outi	Material (Klad & Called & Call	T.S	H.T. ¹ Crown Radius  vessels w	Nominal Thickness Specified  T.S.  Enuck T.S.  Enuck ST. Rediu  Size  Size	R.T	(b) Material  Location  Location	Efficiency  No. of Courisi  Hemispheric Rediut	in. Length  rical Flet  Dismote  (Describe of the prop Weight the prop Impact	Side to Pres (Conv. or Co

### FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I 1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM) 2117 Castle Havne Road, Wilmington, North Carolina 28401 ( Name and Address of MPT Certificate Holder ) Richland, Washington 99352 (b) Manufactured for : WNP 2 ( Name and Address of N Certificate Holder for completed nuclear component ) Nat'l Bd. No. N/A Toentification - Certificate Holder's S/N of Part : <u>A9325</u> (a) Constructed According to Drawing No: 919D258G003 Rev 19 Dwg. Prepared by D. L. Peterson (b) Description of Part Inspected: <u>Cvlinder Tube & Flange</u> (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Bate W75 , Case No. 1361-2 Class 1 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. ( Brief description of service for which component was designed ) Sheet 1 of 2 We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ). Signed GE - NEBG - NF & CM - QA te: <u>06/27/95</u> ( MPT Certificate Holder ) Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151 Certification of Design for Appurtenance GE Company , San Jose , California Design information on file at _ Stress analysis report on file at _____ GE Company . San Jose . California Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u> Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u> Certification of Shop Inspection I. the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied. accordance with the ASME Code Section III. concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

6/27, 1995 James P Exercis Signature

NC 1231, Ohio, WC 3686 PA

National Board, State, Province And No.

^{*}Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

Item	s 4-8 l	ncl. t	o be complete	d for sing	le wall ves	sels, jackets	vessels, or	shells of heat	exchangers.	
4.	Shell:	Mater	ia I T (Kind & Spec. No.)	.S. (Min. of Range	Nominal Thickness Specified)	in. Al	rrosion lowance	in. Dia ft	in. Length	ft ,
5.	Seams:	Long					R.T.		Efficiency	x
					н.т.1		R.T.		No. of Course	<b>.</b>
6	Heads:	(a) M	aterial			T.S	(b) Ma	sterial	T.S	·
	Locatio Bottom.	n ( To Ends	p ) Thickness	Crown		Elliptical Ratio	Concial Apex Angle	Hemispherical		to Press.
(b)	75		bolts used _				Other faster	ning		
				( Materia	l, Spec. No., T.S.	Size Number)		{1	Describe or attach sketch )	•
7.	Jacket	Closur	e:	(De	ecribe as ogee ar	nd wold, ber, etc. If t	per give dimensions,	If boits, describe or state	h) /eight	
			2				£7£	Charpy	y impact	•
						1 at	575			
			be completed					This knows	i- Att-ch-o	
9.	Tube Sh	neets:			114-48 6-	41- 1	( Shared to come a	erre i	in. Attachme	Manney, Course
									in. Attachme	
10.	Tubes:	Mater	ial		0.0	in. Thic	kness	inches or gage.	lumber	(Str. or U)
Iten	ns 11 -	14 inc	:1. to be comp	leted for	inner cham	bers of jacke	ted vessels,	or channels of h	neat exchangers.	
11]	Shell:	Mater	iall		e Specified )	in. Al	rrosion lowance	in. Dia fi	t in. Length	ft 1
12.	Seams:	Long			н.т. 1		R.T.	<del></del>	Efficiency	x
		Girth	າ		н.т. 1		R.T.		No. of Course	s
13.	Heads:	(a) 1	Material			T.S	(b) M	aterial	T.S	
		ation	Thickness	Crown	Knuck le	Elliptical Ratio		Hemispherical		to Press.
(b)	Channe If rem	l ovable:	, bolts used	(a)	(b)	(c)	Othe	r fastening		
	••••							Drop 1 Charpy	(Describe or atta Weight y Impact	ft-1b
1.4	Design	nressi	2 ure			osi at		Fat ter	mp of	° F
			e completed fo							
			-					Locat	ion	
									Reinforcement	
16.	Nozz le			tumber	Die. or Stze	Type	Material	Thickness	Material	How Attached
17.		tion	Hanholes, N	o						
	Openin	gs:	Handholes, N Threaded, N	8. <u> </u>		Size		Location		
18.	Suppor	ts:	Skirt	Lugs	(Number)		(Number)	ther		(Where & How)

^{1 -} If Postweid Heal-Treated.

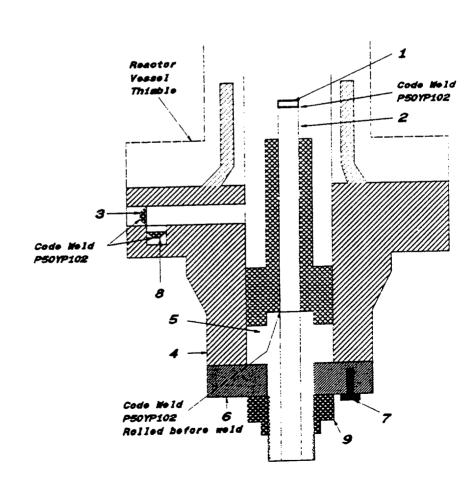
^{2 -} List other internal or exernes pressure with coincident temperature when applicable.

# FORM N-2 NPT CERTIFICATE. JLDERS' DATA REPORT FOR NUCLEAR AT AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

MYN 6

ı	'anufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)
1	2117 Castle Havne Road, Wilmington, North Carolina 28401 Such
	(b) Manufactured for : WNP 2 Richland, Washington 99352 (Name and Address of N Certificate Holder for completed nuclear component)
2.	Identification - Certificate Holder's S/N of Part : <u>A9325</u> Nat'l Bd. No. <u>N/A</u> (a) Constructed According to Drawing No: <u>919D258G003 Rev 19</u> Dwg. Prepared by <u>D. L. Peterson</u>
•	(b) Description of Part Inspected: <u>Cylinder Tube &amp; Flange</u> (c) Applicable ASME Code: Section III . Edition <u>1974</u> . Addenda Date <u>W75</u> . Case No. <u>1361-2</u> Class <u>1</u>
3.	REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  ( Brief description of service for which component was designed )

- 1. Cap 16689274P001 SA182 - F316 3/8" thick x 1 1/16" OD
- Indicator Tube 16784908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- Ring Flange 114B5122P002 SA182 - F304 1* thick x 5.0* OD x 1.75* ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30" thick x 2.62" dia.



FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

#### 2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder )

Richland, Washington 99352 (b) Manufactured for : WNP 2 ( Name and Address of N Certificate Holder for completed nuclear component ) ___ Nat'l Bd. No. N/A 2. Identification - Certificate Holder's S/N of Part : A9535 (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u> (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

( Brief description of service for which component was designed )

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).

Date: 03/15/94

Signed GE - NEBG - NF & CM - QA ( NPT Certificate Holder )

QA Representive )

**NPT N - 1151** Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. :

### Certification of Design for Appurtenance

Design information on file at ______ GE Company, San Jose, California

Stress analysis report on file at ____ GE Company . San Jose . California

Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>

Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

### Certification of Shop Inspection

I. the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the MPI Certificate Holder has constructed this part in accordance with the ASME Code Scatter VIV accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied. concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

NC 1231, Ohio, WC 3686 PA Hational Board, State, Province And No.

Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

			<del></del>					exchangers.	
4.	Shell:		T.S. ec. No.) (Min. of Rang		in. Al	rrosion lowance	in. Dia ft	in. Lengt	th ft
5.	Seams:	Long		H.T		R.T.		Efficiency	%
		Girth		н.т	· · · · · · · · · · · · · · · · · · ·	R.T.		No. of Cour	rses
6.	Heads:	(a) Material			T.S	(ь) м	aterial	T.S.	
(a)			Crown kness Radius		Elliptical Ratio	Concial Apex Angle	Hemispherical Radius		de to Press.
(b)		vable, bolts u	sed			Other faste	ning		
,		Closure:	( Material	, Spec. No., T.S.	Size Number)	•	(0	escribe or attach sketch	)
•		2	(De	scribe as ogee a	nd weid, bar, etc. If	ber give dimensions,	i bolts, describe or sketch Drop W Charpy	i) eight Impact	ft-1b
3.	Design p	pressure	1250	ps	i at	575	Fattem	o of	
ite	ms 9 and	10 to be comp	leted for tube	sections					
1.	Tube She		ary. Material	( Kind & Sp	ec. No. 1	( Subject to pressu	PD )		(Weided, Bolte
).	Tubes:	Material	***	0.0	in. Thic	kness	_ inches or gage. Ni	ımber	Type(Str. or U)
te	ms 11 - 1	4 incl. to be	completed for	inner cham	pers of jacke	ted vessels,	or channels of h	eat exchangers.	
	Shell: Seams:	(Kind & Spe	ec. No.) (Min. of Rang	e Specified )  1 H.T.	in. Al	R.T.		Efficiency	th ft
		Girth		н.т		R.T.		_ No. of Cour	rses
١.	Heads:	(a) Material	<del></del>		T.S	(b) M	iterial	T.S	
a) b)	Locat Top,bott Channel	om, ends	Crown kness Radius			Concial Apex Angle	Hemispherical Radius		le to Press. onv. or conc. )
-•	If remov	able, bolts u	sed (a)	(b)	(c)	Other	fastening	( Describe or a	stach sketch )
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te	ms below Safety V	to be complete	ed for all vess	els where a	applicable.		F at temp		F
te	ms below Safety V	to be complete		els where a	applicable.	Material			F
te	ms below Safety V Nozzles:	to be complete falve Outlets:  Purpose (Inlet, Outlet, Drain)  on Manholes,	Number  Number  No.	Dia. or Size	applicable.		Locatio	Pleinforcement Material	How Attached

^{1 -} If Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASHE Code Rules, Section III, Div. I

Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

## 2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NFT Certificate Holder )

				,							
b)	Hanufactured for	: _1	WNP 2	and Addr	ichland	. Washingto	n 99352 Holder fo	or completed	nuclear	component	7

2. Identification - Certificate Holder's S/N of Part : A9535 Nat'l Bd. No. N/A

(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1

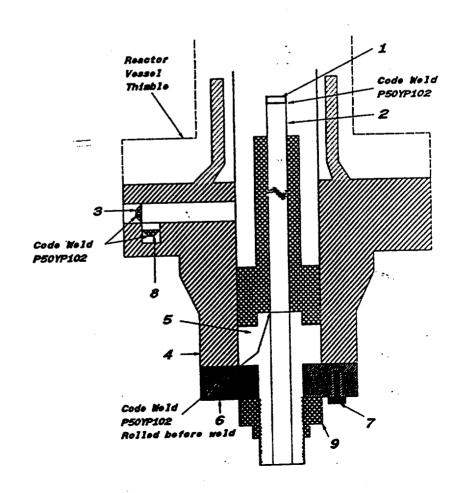
3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

( Brief description of service for which component was designed )

Sheet 2 of 2

612313

- Cap 166B9274P001 SA182 - TP316 3/8" thick x 1 1/16" OD
- Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37" thick x 9 5/8" OD
- 5. Head 129B3539P005 SA182 - F304 7/8" thick x 2.875" dia.
- 6. Ring Flange 114B5122P002 \$A182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



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### HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* FO

RM N-2 NPT CERTIFICATI As required by the	HOLDERS' DATA R Provision of the	LE ASME Code Rules,	Section III,	dep Single
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2117 Castle Havne Road, Wilmington, North Carolina 28401 ( Name and Address of SPT Certificate Holder )

Richland, Washington 99352 ( Name and Address of H Certificate Holder for completed nuclear component ) (b) Manufactured for : WNF 2

Nat'l Bd. No. N/A 2. Identification - Certificate Holder's S/N of Part : A9552

(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 . Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. ( Brief description of service for which component was designed )

Sheet 1 of 2

We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. (The applicable Designed Specification and Stress Code Section III.) Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).

Date: 03/15/94

Signed <u>GE - NEBG - NF & CM - QA</u> ( NPT Certificate Holder )

Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151

## Certification of Design for Appurtenance

GE Company, San Jose, California Design information on file at ___

Stress analysis report on file at ____GE Company, San Jose, California

Design specification certified by Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570

Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

### Certification of Shop Inspection

I. the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have and spected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the MPT Certificate Holder has constructed this part in By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

NC 1231, Ohio, WC 3686 PA National Board, State, Province And No. Inspector's Signature

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

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^{1 -} If Postweld Heat-Treated,
2 - List other internal or external pressure with coincident temperature when applicable.

MYN6 FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

anufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Holder )

163	Wassifratured for :	WNP 2	Richland.	Washington 9933	<u>د</u>	1 4 -41	component
(0)	Manufactured for :	/ Name and	Address of N (	Certificate Holder	for	combleted uncrear	Component

_ Nat'l Bd. No. _ N/A 2. Identification - Certificate Holder's S/N of Part : A9552

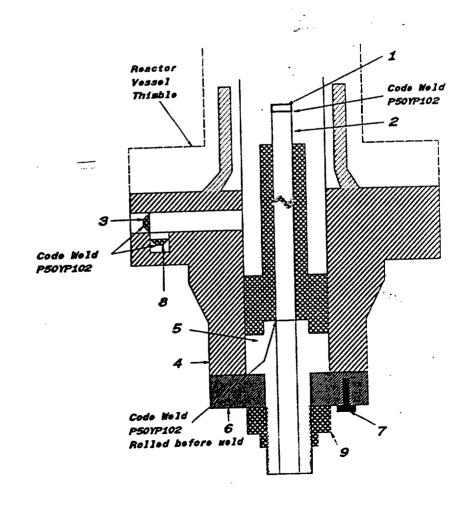
(a) Constructed According to Drawing No: 919D258G003 Rev 18. Dwg. Prepared by D. L. Peterson

(b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>

(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W75 , Case No. 1361-2 Class 1

3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min. ( Brief description of service for which component was designed )

- 1. Cap 166B9274P001 SA182 - TP316 3/8° thick x 1 1/16° OD
- 2. Indicator Tube 167B4908P001 SA312 - TP316 3/4° sch 40 - seamless pipe 0.113' wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37 thick x 9 5/8 OD
- 5. Head 129B3539P005 SA182 - F304 7/8° thick x 2.875° dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. I

Vo Todona	Correct East 9
	6/23(8)
	I Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)
Manufactured & Certified by : Genera	I Electric Company Nuclear Fuel & Company
2117 (	Poetle Hayne Road Wilmington, NORD Carollina 20401
	( Name and Address of NPT Certificate Holder )
	Richland, Washington 99352
(b) Manufactured for : WNP 2	Richland, Washington 99552  Address of N Certificate Holder for completed nuclear component )
( Name and	
Identification - Certificate Holder's	3/4 01 1010
Identification - Certificate notice 5	No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
(a) Constructed According to Drawing	NO. OFFICE OF PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE
(b) Description of Part Inspected: _	Cylinder Tube & Flange
Continuity Continuity Continuity	II , Edition <u>1974</u> , Addenda Date <u>W'75</u> , Case No. <u>1361-2</u> Class <u>1</u>
(c) Applicable ASME Code: Section 1	the state of the tented at 1925 and min
REMARKS: Standard part for use with	Reactor. Hydrostatically tested at 1825 psi. min.
( Brief description	of service for which component was designed )
	Sheet 1 of 2
	s report are correct and this vessel part or appurtenance as defined in the code of the ASME Code Section III. (The applicable Designed Specification and Stress
We certify that the statements in this	s report are correct and this vessel part or appurtenance as defined in the second of the ASME Code Section III. (The applicable Designed Specification and Stress the NPT Certification Holder for appurtenances the NPT Certification Holder for appurtenances.
is responsible for furnishing a separa	the NPT Certificate Holder for parts. An NPT Certification holder for appointment at the Design Specification and Stress Report if the appurtenance is not included in a Stress Report).
the component Design Specification and	
	GE - NERG - NE & CM - QA By
Date: 04/00/04	( NPT Certificate Holder )
	6/16/96 Certification of Authorization No. : NPTN-1151
Certificate of Authorization Expires:	Al intak
	cation of Design for Appurtenance
Certiii	
	OF Company San Jose California

Contif	ication of Design for Appurtenance
Design information on file at	GE Company , San Jose , California
	GE Company, San Jose, California  Bjorn Haaberg Prof. Eng. State Calif. Reg. No. 15570
	by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>

### Certification of Shop Inspection

I. the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.

1/8 . 1994 Grove P Enur.

Date No. 1231, Ohio, WC 3686 PA

National Board, State, Province And No.

*Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

							vessels, or					
4.	Shell:	Mater	iall	.S. ) (Min. of Range	Nominal Thickness Specified)	Cor in. All	rosion owance i	in, Dia.	ft	in. Ler	gth ft	- ' <b>^</b>
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-					1					No. of Co	ourses	_
6.	Heads:	(a) Hi	aterial			T.S	(b) Ma	aterial _		T.S		_
	Location,	on (To		Crown	Knuck le Radius		Concial Apex Angle	Hemispl	herical f	lat :	ide to Press. conv. or conc.	
(a) (b)		nyah le	bolts used				Other faster	ning				_
,			e:	( Material,	Spec. No., T.S.				(	ribe or attach size	ich }	
			<del></del>	( Des			er give dimensions,		Charpy I		ft-	
8.	Design	pressu	2 ire	1250	ps	i at	575	F	at temp	of	F	
			be complete									
			Stationary.	Material	( Kind & Sp	ec. No.) Dia	( Subject to pressu	ure) Thi	ckness	_ in. Att	achment (Welded,	BONEC :
											Type(Str	or U :
Ite	ems 11 -	14 inc	1. to be con	pleted for	inner cham	bers of jacke	ted vessels.	or chann	nels of hea	t exchanger	s	
11.	Shell:	Mate	rial (Kind & Spec. N	T.S. D.) (Min. of Rang	e specimo) 1						ngth ft	
12.	Seams:	Long			H.T						су	
		Girt	h		н.т						ourses	
13.	Heads	(a)	Material			T.S	(b) !			_	6	<del></del>
(a		cation ottom.e	Thickne	Crown ss Radius	Knuck le Radius	Elliptical Ratio	Concial Apex Angle		pherical s	Flat Diameter	Side to Press. ( conv. or conc	:. ) —
(·b	) Channo If re	el movable	, bolts used	(a)	(b)	(c)	Oth	er faste	ning	( Descrit	e or affach sketch )	
									Orop We Charpy	• -		<del> 1</del> b
14.	Desia	n press	2 sure			psi at			Fat temp	of	f	: 
	ems be l	ow to b	ne completed	for all ves	sels where	applicable.						
15			Outlets: N						Location	n		
16	_	es: Pun	pose (Inlet, let, Drain)	Number	Dia. or Siz		Materia	ai 	Thickness	Reinforcen Material	How Attach	••d
17	. Inspe Openi		Manholes, Handholes, Threaded,	No				Locatio	on			
18	. Suppo	orts:	•	Lugs		Legs	(Number)	Other _	(Describe)	Attac	hed (Where & Ho	7W)

^{1 -} If Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable.

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FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. I

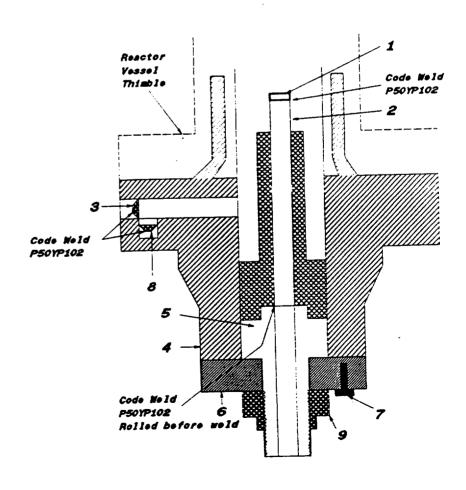
6	23	ره

1. Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GE NF & CM)

## 2117 Castle Hayne Road, Wilmington, North Carolina 28401 (Name and Address of NPT Certificate Bolder)

	(b) Manufactured for : WNP 2 Richland, Washington 99352  ( Name and Address of N Certificate Eolder for completed nuclear component )
,	Identification - Certificate Holder's S/N of Part : A9478 Nat'l Bd. No. N/A
•	(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
	(h) Description of Part Inspected: <u>Cylinder Tube &amp; Flange</u>
	(c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1367-2 Class 1
3.	REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  ( Brief description of service for which component was designed )

- 1. Cap 166B9274P001 SA182 - TP316 3/8" thick x 1 1/16" OD
- Indicator Tube 167B4908P001 SA312 - TP316 3/4" sch 40 - seamless pipe 0.113" wall thickness 1.065" max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37* thick x 9 5/8* OD
- 5. Head 129B3539P005 SA182 - F304 7/8' thick x 2.875' dia.
- Ring Flange 114B5122P002 SA182 - F304 1" thick x 5.0" OD x 1.75" ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2" dia. on 4 1/8" bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38° thick x 1.307° dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30° thick x 2.62° dia.



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# FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

-	COPPC:
· ·	Manufactured & Certified by : General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)
1.	2447 Captle Hayna Road Wilmington North Carolina 28401
	( Name and Address of NPI Certificate Holder )
	(b) Manufactured for : WNP 2 Richland, Washington 99352  ( Name and Address of N Certificate Holder for completed nuclear component )
	Identification - Certificate Holder's S/N of Part : A9505 Nat'l Bd. No. N/A
2.	(a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by <u>D. L. Peterson</u>
	(b) Description of Part Inspected: <u>Cylinder Tube &amp; Flange</u>
	(c) Applicable ASME Code: Section III , Edition 1974, Addenda Date W75, Case No. 1361-2 Class 1
	(c) Applicable ASME Code: Section III. Edition 1914, Natural 1915 psi. min.
3.	REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.  ( Brief description of service for which component was designed )
	Sheet 1 of 2
	We certify that the statements in this report are correct and this vessel part or appurtenance as defined in the code conforms to the rules of construction of the ASME Code Section III. ( The applicable Designed Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certification Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report ).
	Date: 04/08/94 Signed GE - NEBG - NF & CM - QA ( MPT Certificate Bolder ) SC OF Representive )
	Certificate of Authorization Expires: 6/16/96 Certification of Authorization No. : NPT N - 1151
	Certification of Design for Appurtenance
	Design information on file atGE Company, San Jose, California
ļ	Stress analysis report on file at <u>GE Company</u> , San Jose, California
	DC22A6253 Rev. 1 Design specification certified by <u>Bjorn Haaberg</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>15570</u>
	DC22A6254 Rev 1 Stress analysis report certified by <u>Edward Yoshio</u> Prof. Eng. State <u>Calif.</u> Reg. No. <u>M018646</u>
ш_	•
Г	Certification of Shop Inspection
	I, the undersigned, holding a valid commission by the National Board of Boiler and Pressure Inspectors and/or the State or Province of North Carolina and employed by Department of Labor of State of North Carolina have inspected the part of a pressure vessel described in this Partial Data Report on and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.  By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in the Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damages or a loss of any kind arising from or connected with this inspection.
	Date Decomposition Person Person NC 1231, Ohio, WC 3686 PA  National Board, State, Province And No.

^{*}Supplemental sheets in form of lists, sketches or drawing may be used provided (1) size is 8-1/2" x 11", (2) information in 1-2 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded in Item 3. "REMARKS".

4.	Shell: Material	т	.s	Nominal Thickness	in. Al	rrosion llowance	in. Dia.	ft.	in. l	Length	ft
	(~	no a spec. No. )	( man, or realige	1							
5.	Seams: Long		· · · · · · · · · · · · · · · · · · ·	н.т		R.T.			_ Efficie	ency	
	Girth			н.т.՝		R.T.			_ No. of	Courses	
6.	Heads: (a) Mate	rial			T.S	(ь) н	aterial _		T	.s	
(a)	Location ( Top Bottom, Ends )	Thickness	Radius		Elliptical Ratio	Concial Apex Angle		erical			Press. or conc.
(b)	If removable, bo					Other faste	ning	<del></del>			
,	Jacket Closure:		( Material		Size Number)			(De	ecribe or attach	sketch j	
<b>,</b> .	Jacket Closule.		( Des	scribe as ogee as	nd weld, bar, etc. If	bar give dimensions,	if bolts, descri	Dane He	:		
								Drop We Charpy	Impact		ft-1b
8.	Design pressure		1250	ps	i at	575	°F	at temp	of		• F
	ms 9 and 10 to be										
		· .			Nia		Thic	kness	in. A	ttachment	
3.	Tube Sheets: St		Makania 1	(Kind & Sp	ec. No. )	(Subject to pressu	ure)		in A	ttachmant	(Welded, Bo
0.	Tubes: Materia			0.D	in. Thic	kness	inches or g	age. Nu	mber	іу	pe(Str. or t
14.	11 14 :1	A . 1						16	at evchange	ere	<del></del>
			···· · ···	Nomina 1	٠,	eted vessels,			*********		£4
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11.	Shell: Materia (K	T ind & Spec. No.	.S. ) (Min. of Range	Nominal Thickness Specified) 1 H.T.	Cc in. A	prrosion Howance	in. Dia.	ft.	in.	Length	
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11. 12. (a) (b)	Shell: Materia (K Seams: Long Girth Heads: (a) Mate Location Top.bottom.ends Channel If removable, bo	Thickness	Crown Radius	Nominal Thickness Specified)  H.T.  H.T.  Knuckle Radius  (b)	T.SElliptical Ratio(c)	R.T. R.T. (b) M Concial Apex Angle	in. Dia.  laterial _  Hemisph Radius	erical  Drop We Charpy	Efficient No. of The Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of the Diameter Constitution of	ency Courses .S Side to ( conv.	Press. or conc.)
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^{1 -} If Postweld Heat-Treated.

^{2 -} List other internal or external pressure with coincident temperature when applicable,

MYN6

# FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES* As required by the Provision of the ASME Code Rules, Section III, Div. I

12<del>/24/</del>50

Manufactured & Certified by: General Electric Company Nuclear Fuel & Components Manufacturing (GENF & CM)

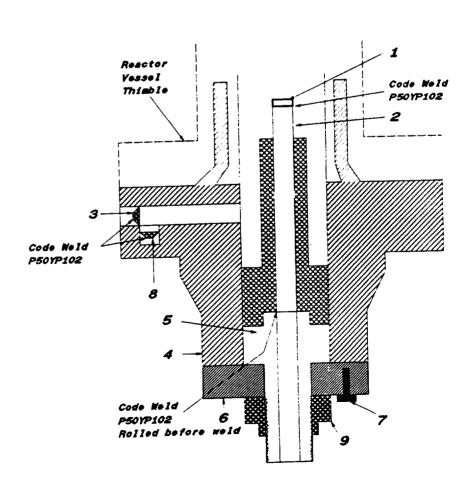
# 2117 Castle Hayne Road, Wilmington, North Carolina 28401 ( Name and Address of NPT Certificate Bolder )

(h)	Manufactured for	:	WNP 2	Richland, Washington 99352	
(0)	manar doctor do		( Name and	Address of N Certificate Holder for completed nuclear c	ombottenc

- 2. Identification Certificate Holder's S/N of Part : A9505 Nat'l Bd. No. N/A
  - (a) Constructed According to Drawing No: 919D258G003 Rev 18 Dwg. Prepared by D. L. Peterson
  - (b) Description of Part Inspected: <u>Cylinder Tube & Flange</u>
  - (c) Applicable ASME Code: Section III , Edition 1974 , Addenda Date W'75 , Case No. 1361-2 Class 1
- 3. REMARKS: Standard part for use with Reactor. Hydrostatically tested at 1825 psi. min.

  ( Brief description of service for which component was designed )

- 1. Cap 16689274P001 SA182 - TP316 3/8* thick x 1 1/16* OD
- Indicator Tube 167B4908P001 SA312 - TP316 3/4° sch 40 - seamless pipe 0.113° wall thickness 1.065° max. dia.
- 3. Plug 159A1176P001 SA182 - F304 1/4" thick x 0.812" OD
- 4. Flange 919D610P001 (719E474) SA182 - F304 3.37* thick x 9 5/8* OD
- 5. Head 129B3539P005 SA182 - F304 7/8* thick x 2.875* dia.
- 6. Ring Flange 114B5122P002 SA182 - F304 1* thick x 5.0* OD x 1.75* ID
- 7. Cap Screw 117C4516P002 SA193 - B6 6 ea. 1/2° dia. on 4 1/8° bolt circle
- 8. Plug 175A7961P001 SA182 - F304 0.38" thick x 1.307" dia.
- 9. Nut 114B5460P001 XM - 19 SA479 1.30" thick x 2.62" dia.



## FORM N-2 MANUFACTURERS DATA REPORT FOR NUCLEAR PART AND APPURTENANCES

As required by the Provisions of the ASME Code Rules General Electric Company, Castle Hayne Rd., Wilmington, N. (Name and address of Manufacturer of part) General Electric Company, San Jose, California (b) Manufactured for_ (Name and address of Manufacturer of completed nuclear component) 2. Identification-Manufacturer's Secial No. of Part Nat'l Bd. No. (a) Constructed According to Drawing No. 761E387G2 Drawing Prepared by D. L. Peterson (b) Description of Part Inspected Control Rod Drive, Model #7RDB144 C1 (c) Applicable ASME Code: Section III, Edition 1971, Addenda date None, Case No. 1361-1 Class 1 Standard part for use with Reactor. Hydrostatically tested at 1820 psi 3. Remarks:_ (Brief description of service for which component was designed) minimum. INTERPOSERVAN We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III. (The applicable Design Specification and Stress Report are not the responsibility of the part Manufacturer. An appurtenance Manufacturer is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.) Signed GE, BWRSD - REM (Manufactures June 20, Certificate of Authorization Expires_ 1978 Certificate of Authorization No. NPT - 462 CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable) Design information on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington Stress analysis report on file at General Electric Co., BWRSD-REM, Castle Hayne Rd., Wilmington Design specifications certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488 Stress analysis report certified by Vernon W. Pence Prof. Eng. State Calif. Reg. No. 14488 CERTIFICATE OF SHOP INSPECTION I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of North Carolina and employed by Department of Labor State of North Carolina have inspected the part of a pressure vessel described in this Manufacturer's Partial Data Report on July 31 , 19 75, and state that to the best of my knowledge and belief, the Manufacturer has constructed this part in accordance with the ASME Code Section III. By signing this certificam, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Manufacturer's Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected 19 75 J<u>uly 3</u>1 PA. I'C 1766, Obio Commissions Inspector's Signature National Board, State, Province and No.

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