CATEGORY 1

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9707310152 DOC.DATE: 97/07/25 NOTARIZED: YES DOCKET #
FACIL:50-244 Robert Emmet Ginna Nuclear Plant, Unit 1, Rochester G 05000244
AUTH.NAME AUTHOR AFFILIATION
MECREDY,R.C. Rochester Gas & Electric Corp.
RECIP.NAME RECIPIENT AFFILIATION
VISSING,G.S.

See Reports

SUBJECT: Forwards 120-day response to GL 97-01.

DISTRIBUTION CODE: A075D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 27 + 28
TITLE: GL-97-01 Degraduation of Control Rod Drive Mechanism & Other Vessel

NOTES:License Exp date in accordance with 10CFR2,2.109(9/19/72). 05000244

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CATEGORY 1 DOCUMENT

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ROBERT C. MECREDY
Vice President
Nuclear Operations

July 25, 1997

U. S. Nuclear Regulatory Commission
Document Control Desk
Attn: Guy S. Vissing
Project Directorate I-1
Washington, D. C. 20555

Subject: Rochester Gas & Electric Corporation's Response to the Generic Letter 97-01
R. E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Vissing:

Enclosed is Rochester Gas & Electric's 120-day response to subject Generic Letter 97-01. RG&E has been an active participant in the efforts of NEI and others to address the Alloy 600 Primary Water Stress Corrosion Cracking (PWSCC) concern on the Control Rod Drive Mechanism(CRDM)Penetration issue since the issue developed, including being among the first to perform enhanced Generic Letter 88-05 visual inspections. RG&E continues to support NEI, Owners Groups and others in their efforts to address the CRDM issue.

A significant amount of research and design efforts have been expended by the industry, in order to analyze PWSCC in CRDM penetrations. These efforts resulted in the safety evaluation presented in WCAP-13565 Rev. 1, and NRC Safety Evaluation Report to NEI on Nov 19,1993, which concluded that the issue does not present an immediate safety concern, as confirmed by NUREG/CR-6245. Additional clarification and response to NRC questions resulting from the safety evaluation have been addressed in WCAP 14219 Rev. 1, RV Closure Head Penetration Supplemental Assessment of NRC SER Issues, March 1995. These safety evaluations and WCAPs are applicable to Ginna Station and form the basis for our characterization and prioritization of this issue.

As early as 1993, RG&E took pro-active steps in order to develop options for the Ginna Station vessel penetrations based on the work of Dominion Engineering. This work was updated after the three sample plant inspections (one of which contained the same material heat numbers as the Ginna Station vessel)were completed and the final report was issued in November 1995. Based on this report, an options matrix was developed for Ginna.

A075 1/1

In order to properly evaluate the potential ramifications of this issue on RG&E, we are currently in the process of preparing a specification for solicitation of bids to perform examinations of the Ginna vessel head during the 1999 refueling outage. A determination of whether to, when to, and to what extent to perform inspections will be based on our review of these bids, as well as our review of ongoing industry experience.

While approaches to predicting probabilities of occurrence may vary between analyses, RG&E believes that the one sample plant inspection which included the exact heat numbers from the Ginna vessel, and did not produce indications, provides the best representation for what would be expected at Ginna Station and supports the conclusion that the issue does not present an immediate safety concern.

Very Truly yours,

Robert C. Mecredy

/kc
Enclosure

Subscribed and sworn/affirmed before
me this 25th day of July, 1997

MARIE C. VILLENEUVE
Notary Public, State of New York
Monroe County
Commission Expires October 31, 1998

Marie C. Villeneuve
Notary Public

xc: Mr. Guy S. Vissing
Project Directorate I-1
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

U. S. Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406

Ginna Senior Resident Inspector

Attachment 1: Response to Requested Information Items 1.1-1.4

Item 1.1

Description of all inspections of CRDM nozzle and other VHP's performed to date of this Generic letter, including the results of these inspections.

Response to 1.1:

1.1.1 RG&E has performed visual examinations of the head area during each refueling outage since 1994, using an "Enhanced 88-05 Criteria". The results of the visual examinations are transmitted in Enclosure 1.

1.1.2 RG&E has also performed a remote underhead visual scoping inspection to determine the condition of the underside of the vessel head. (Video, 1993)

1.1.3 ISI examination results of the attachment weld as required by section XI of ASME code are contained in Enclosure 2.

1.1.4 ISI UT/PT inspection results of the bi-metallic welds of the CRDM penetration to the CRD end connection. (Enclosure 3)

1.1.5 No replications have been performed on the Ginna Head.

1.1.6 No volumetric inspections have been performed at Ginna Station. Note, however, that the Ginna Vessel penetrations contain the same heat numbers as one of previously inspected vessel heads, NX-4906 and NX-4909.

Item 1.2

If a plan has been developed to periodically inspect the CRDM nozzles and other VHP's.

a. Provide the schedule for first, and subsequent, inspections of the CRDM nozzle and other VHP's, including the technical basis for this schedule.

b. Provide the scope for the CRDM nozzle and other VHP inspections, including the total number of penetrations (and how many will be inspected), which penetrations have thermal sleeves, which are spares and which are instrument or other penetrations.

1.3 If a plan has not been developed to periodically inspect the CRDM nozzle and other VHP's, provide the analysis that supports why no augmented inspection is necessary.

1.4 In light of the degradation of CRDM nozzle and other VHP's described above, provide the analysis that supports the selected course of action as listed in either 1.2 or 1.3, above. In particular, provide a description of all relevant data and/or tests used to develop crack initiation and crack growth models, the methods and data used to validate these models, the plant-specific inputs to these models, and how these models substantiate the susceptibility evaluation. Also, if an integrated industry inspection program is being relied on, provide a detailed description of this program.

Response to 1.2 - 1.4:

Ginna Station is a participant in the Westinghouse Owners Group RPV head penetration integrated inspection program. This integrated program includes volumetric inspection of head penetrations that have been performed to date. We are continuing to evaluate the results of inspections, both from WOG reactor vessels and other PWR Owners Groups

The need and schedule for re-inspection will be based on an evaluation of the inspection results from the Westinghouse Owners Group integrated inspection Program. The plant performing re-inspections will keep the NRC staff informed of its future re-inspection plans.

Relevant data and or tests used to develop crack initiation and crack growth models are contained in WCAP's 14901 and 14902 submitted by the WOG. Note that RG&E utilized the Westinghouse model as a confirmatory type analysis. The strategic plan used to develop the Ginna options matrix is based on the work performed in conjunction with Dominion Engineering. Additional information on the strategic plan is contained in enclosure 4.

As noted in our cover letter, RG&E is also soliciting bids for potentially performing an inspection during the 1999 Refueling Outage. The basis for choosing this date is the Strategic Plan, prepared in conjunction with Dominion Engineering, which captures the results of the sample plant inspections performed through 2/13/95. It conservatively assumes an indication in one penetration in the sample plant which contained the same heat numbers as the Ginna vessel head CRDM material. Note that the sample plant which inspected did not discover any indications.

Total scope of inspections, if it is decided to do so for economic reasons, will be defined by bids received. Current options considered in the Strategic Plan indicate that, if underhead inspections are performed, the cost differential between selected penetrations, as compared to all penetrations is not significant, but this will be further evaluated as bids become available.

Attachment 2: Response to Requested Information Items 2.1-2.6

Item 2.0

Provide a description of any resin bead intrusion as described in IN 96-11, that have exceeded the current EPRI PWR Water Chemistry Guidelines recommendations for primary water sulfate levels including the following information:

2.1 Were the intrusions cation, anion or mixed bed?
2.2 What were the durations of these intrusions?
2.3 Does the plant RCS water chemistry Technical specifications follow the EPRI guidelines?
2.4 Identify any RCS chemistry excursions that exceed the plant administrative limits for the following species: sulfates, chlorides or fluorides, oxygen boron and lithium. Identify and conductivity excursions which may be indicative of resin intrusions. Provide technical assessment of each excursion and any follow-up actions.
2.5 Provide an assessment of the potential for any of these intrusions to result in a significant increase in the probability for IGA of VHP's and any associated plan for inspections.

Response:

Ginna Station has reviewed the plant historical records to determine if any incident of resin ingress similar to those which occurred in 1980 and 1981 at Jose Cabrera (Zorita) plant has occurred at Ginna. This data search is structured to identify all resin intrusion events into the primary coolant system with a magnitude greater than 1 $ft.^3$ (30 liters). The threshold of 1 $ft.^3$ was chosen as a conservative lower bound since it represents less than 15% of the estimated volume of resin released into the reactor coolant system during the two events at Jose Cabrera.

A review of existing records performed by plant chemistry personnel showed no occurrence at Ginna Station.

For the period of plant operation prior to the routine analysis for sulfate in reactor coolant, the data search was based on a review of the plant's reactor coolant chemistry records relative to specific conductance of the reactor coolant. An elevation of a 28 micro S/cm increment in specific conductance was the value used as an indicator of cation resin ingress equivalent to a volume of 1 ft^3.

Routine analysis for sulfate in reactor coolant was performed monthly for plant operation from 1992 to June 1996 and weekly since July 1996.

Had either specific conductance or sulfate increases indicated resin ingress to the magnitude of the threshold quantity identified above, additional data evaluation would have been conducted to look for a corresponding depression in pH or elevation in lithium as corroborating information of the incident. In the case of the use of sulfate data as the indicator, specific conductance would also have been included as confirmatory data had a significant in-leakage event been identified.

It is unnecessary to review plant records for boron, chlorides, fluorides and oxygen because these species are not viewed as valid indicators of cation resin ingress and degradation within the primary coolant system of a PWR. Borate, chloride and fluoride anions could be associated with the anion portion of mixed bed resin (cation plus anion); however, if mixed bed resin leakage to the RCS occurred, the cation portion of the resin would contain the sulfate indicator described above. Detectable oxygen in reactor coolant, during power operation with appropriate hydrogen overpressure on the volume control tank and specified residual dissolved hydrogen in the reactor coolant, could not occur and, therefore, could not be associated with resin in-leakage.

Ginna Station has followed the EPRI PWR Primary Water Chemistry Guidelines since July 96 and has implemented revisions when issued.

The following exception to the EPRI guidelines exist at Ginna:

1. Regular analysis for calcium and aluminum have not been performed. The magnesium analysis has been done regularly and the other two omitted when no magnesium is found in the primary coolant.

h:\gw_gl

Enclosure I

Enhanced 88-05 Results 1994, 1995, 1996

RGE

Examination Summary Record

EIN RRC01

Site Ginna Work Order # N/A Summary Sheet # N96003*

Applicable Code: N/A System: RX Vessel Head Time: 1012

Description: Area Assoc. with CRDM Insulation Inspection ID: CRDM

Examination For:

ISI ☐ MISIP ☐ Non-Scheduled ☒ E/C ☐ RRM ☐ Fossil/Hydro ☐ Gas ☐ SoS ☐ Other _____

Exam Type	Comments
VT	Informational - Information given to Al Butcavage of Engineering - #96GV028 - 4/6/96

Additional Comments:

Pictures given to A Butcavage - This inspection did not reval any problems with boric acid leakage or build-up - All areas were clean and did not appear to any different than the 1995 inspection. This was a limited scope exam due to the insulation and shrouds.

Summarized By III ☒ II ☐ NA ☐ Signature Date	Reviewed By III ☐ II ☐ NA ☒ Signature Date
Paul A Lewis Paul A Lewis 7/15/96	Frank A. Klepacki Frank A Klepacki 7/15/96

Visual Examination of Equipment and Components

Work Order # N/A Summary Sheet # N96003 Sheet # 96GV028

e Ginna Procedure VT-105 Rev. 0 PDR N/A Date: 4/6/96

Applicable Code: N/A System ID: RX Vessel Head Time: 0800

Description: Area Assoc. With CRDM Insulation Inspection ID: Control Rod Drive Mechanism

ISO Drawing #: N/A Location: N/A

Examination For:

ISI ☐ MISIP ☐ Non-Scheduled ☒ E/C ☐ RRM ☐ Fossil/Hydro ☐ Gas ☐ SoS ☐ Other _____

Light Meter MFG: GE-214 Serial No. L170 Illumination: > 80 Ft./CDS

Gray Card: 1/32" Direct ☒ 1/64" Remote ☐ Surface Condition: As Assembled, Insulated

Visual Equipment/Aids: Flashlight, Camera

Limitations: Portholes (3) 12" diameter access

Lo Location: N/A Wo Location: N/A

LOC L	LOC W	LOC U/D	IND R/L	SIZE D/L	REMARKS
					This inspection was performed by following the guidelines to enhance 88-05 criteria. No Boric Acid Deposits. Looking in west port access hole - a small existing tool mark puncture in insulation dome. Southeast port access hole - no recordable indications. Northeast port access hole - unavailable due to cavity activities.

dd. Documentation: Hand Sketch ☐ Polaroid ☐ Digital Photo ☐ Video Tape ☐ Other _____

PART A

Visual Examination of Equipment and Components

Sheet # 96GV028

Component ID: Control Rod Drive Mechanism

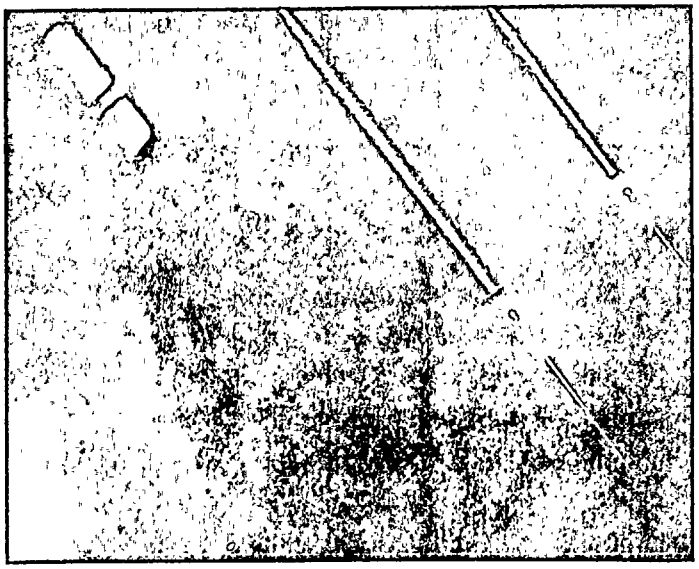
Sketch or Photo:

Comments:
Photographs and information have been provided to the cognizant individual Al Butcavage. 14 photographs are with Al Butcavage - EWR 10028 File.

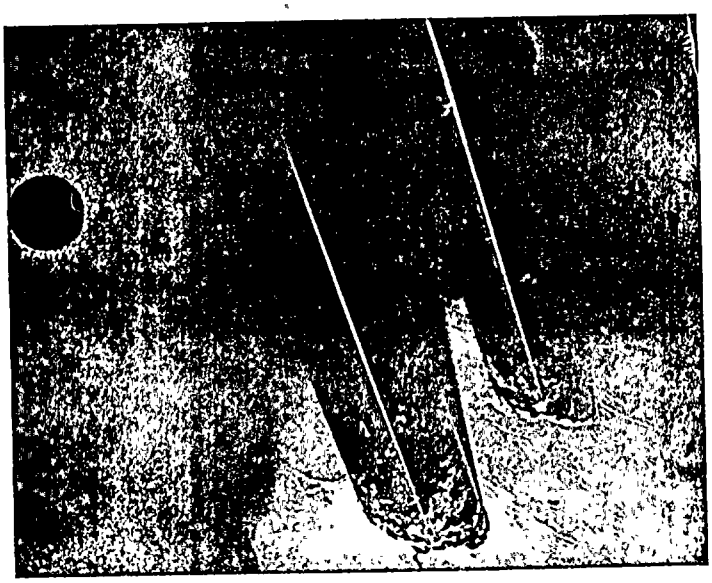
Disposition: Accept ☐ Reject ☐ Informational ☒ Information given to A Butcavage of engineering

Examiner Level III ☐ II ☒ I ☐	Signature	Date	Reviewer Level III ☒ II ☐	Signature	Date
Michael D. Canny	/Michael D Canny	5-10-96	Paul A. Lewis	Paul A Lewis	5/16/96
Examiner Level III ☐ II ☐ I ☒	Signature	Date			
Chris G. Northington	/Chris G. Northington	5/10/96			

PART B

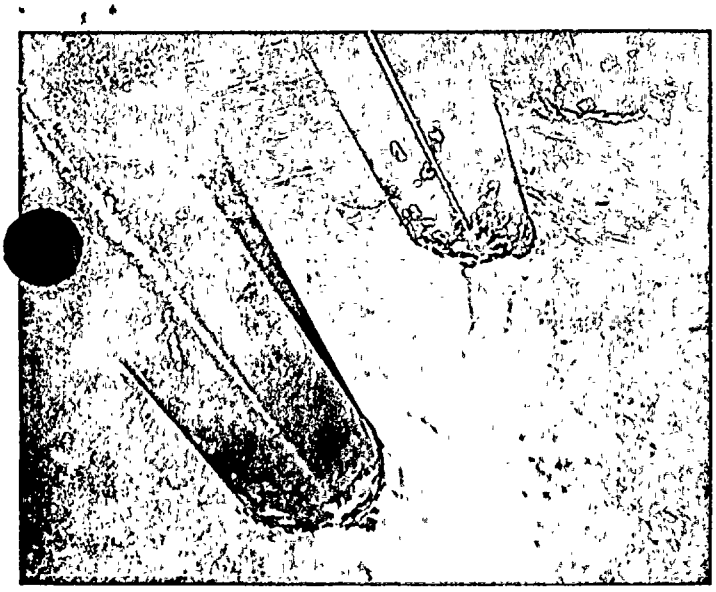


WEST PORT HOLE
#1



#1

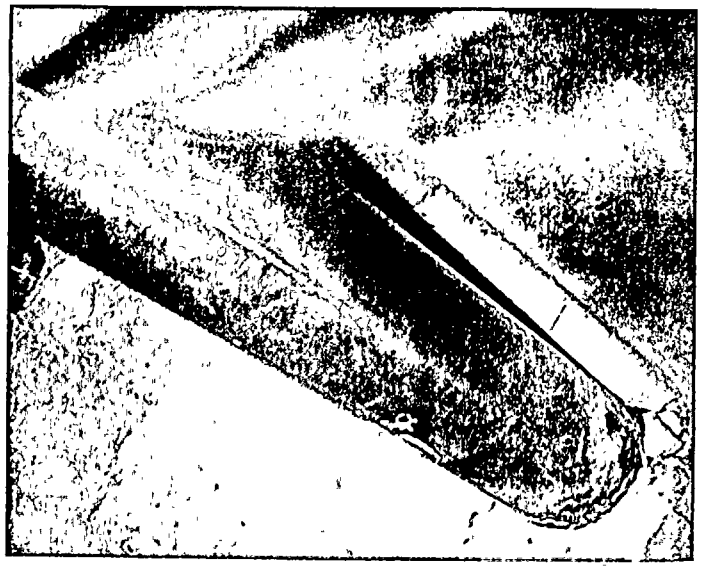
#1



#1

#1

#2



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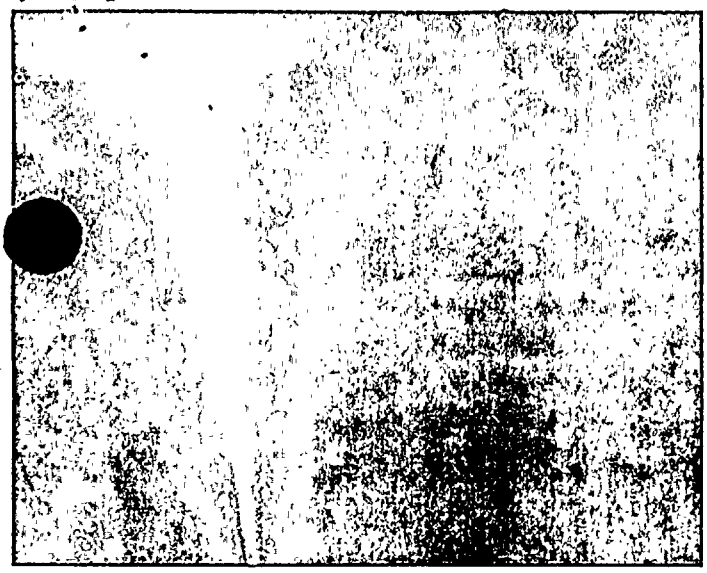
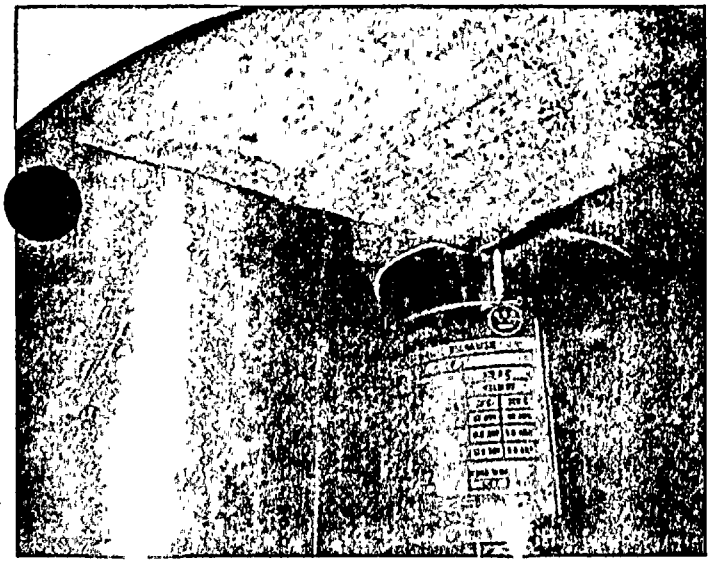


SOUTH EAST PORT HOLE
#2

#2



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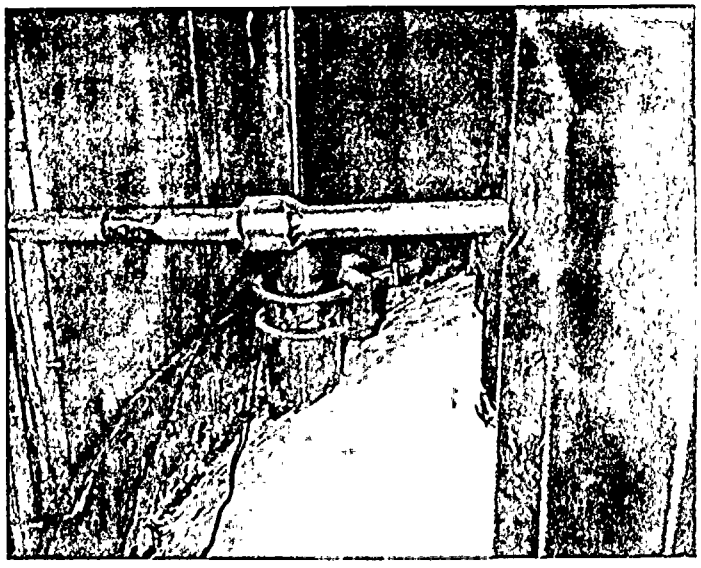

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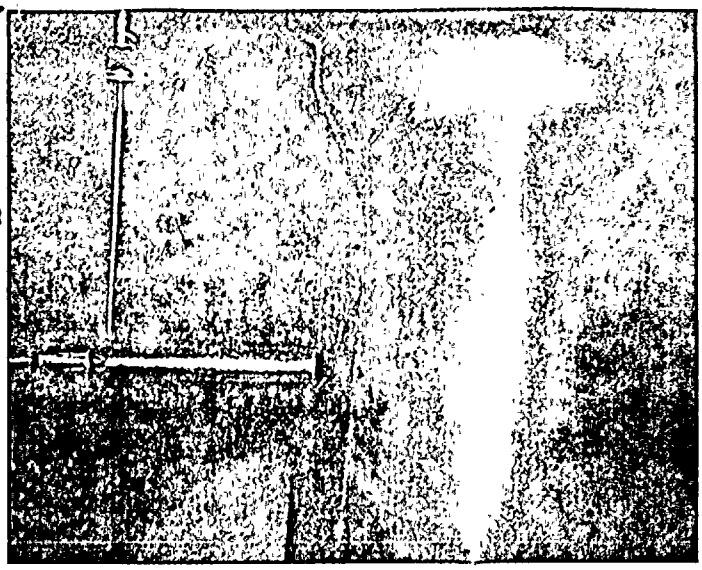

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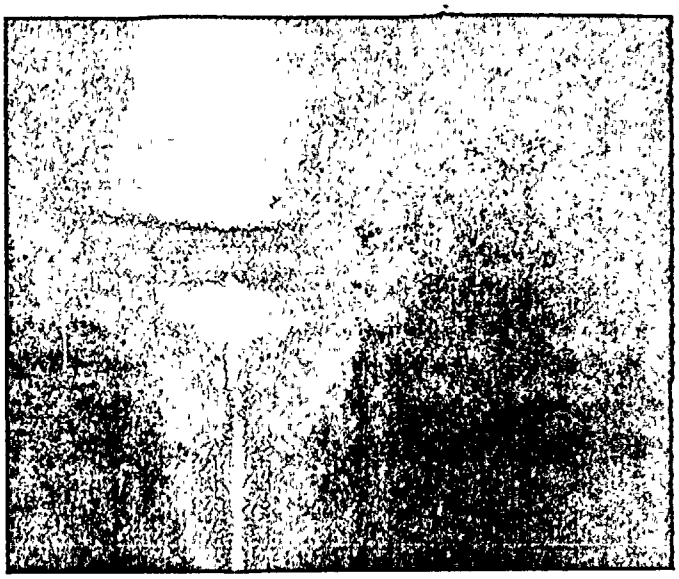


#2

Sheet # M95028

RGE AND E

MATERIALS ENGINEERING

EXAMINATION SUMMARY RECORD

6/87 77-54

Examination for: ISI: ____ Maint: ____ Other: X ENGINEERING

Site: GINNA STATION System: REACTOR VESSEL

ID: REACTOR VESSEL HEAD Description: CRDM PENETRATIONS (3)

Exam Type	Exam Rec. #	Examiner	Date	Results					W/R 509019 Remarks 23.12 4/4/95
				No Rec	Insig	Geom	Other	Rej	GUIDELINES TO ENHANCE 88-05 CRITERIA.
VT-3	951082	MDC	3/31/95				X		NO BORIC ACID DEPOSITS IN EXISTING INSULATION; A SMALL TOOL HOLE PUNCTURE NEAR PORT HOLE AREA
									19 PHOTOGRAPHS TO A. BUTCAVAGE

Summarized By: [signature] SNT Level II Date 4/1/95

Reviewed By: [signature] SNT Level III Date 4/3/95

RGE

Sheet # 951082

MATERIALS ENGINEERING AND INSPECTION SERVICES
RECORD OF VISUAL EXAMINATION OF EQUIPMENT AND COMPONENTS

e Ginna Station

Summary Sheet # M95028

Applicable Code N/A Date 3-31-95 Time 1500

System Id RX Vessel Head Id Control Rod Drive Pene. (3)

Description Area associated/Cont. Rod Dr. Mechanism Pene. VT Procedure NDE 100-9 Rev 3

Drawing No. N/A Location N/A, N/A PDR #: 0931, 0891

EXAMINATION FOR:

ISI _____ Maintenance _____ Construction _____ R/R Mod _____ Other ✓ SEE BELOW Engineering

Examiner (Print) Michael D Canny Level II

Examiner (Print) N/A Level N/A

Light Meter MFG/Ser # GE214 / L-162 Illumination Used > 80 FT/CDS

Gray Card 1/32" Direct X 1/64" Remote ____

Visual Equipment/Aids Flashlight, Camera

ace Condition As Assembled, As Insulated

Limitations Port holes - 12" diameter

Loc L	Loc W	Loc U/D	Type R/L	Size D/L	Remarks
					Following Guidelines to Enhancement to 88-05 criteria
					NO BORIC ACID Deposits
					In the existing insulation, a small tool
					puncture near port hole area.
					19 Photographs are with Eng. Al Butcavage

PART A

RGE

Sheet # 951082

MATERIALS ENGINEERING AND INSPECTION SERVICES
RECORD OF VISUAL EXAMINATION OF EQUIPMENT AND COMPONENTS

COMPONENT IDENTIFICATION: Control Rod Drive Penetrations

SKETCH OR PHOTO:

COMMENTS: No Recordable Accumulations of Boric Acid deposits.

DISPOSITION: Acceptable

EXAMINER'S SIGNATURE Michael D Canny DATE 03-31-95

EXAMINER'S SIGNATURE N/A DATE N/A

REVIEWED BY: W. S. Callaway, J (Name) II (Level) 4/1/95 (Date)

PART B

Sheet # M94038

RGE MATERIALS ENGINEERING

EXAMINATION SUMMARY RECORD

6/87 77-54

Examination for: ISI: _____ Maint: _____ Other: X ENGINEERING GL 88-05

Site: GINNA STATION System: REACTOR VESSEL HEAD

ID: CRDM PENETRATIONS Description: EXAM FOR BORIC ACID LEAKAGE

Exam Type	Exam Rec. #	Examiner	Date	Results: NoRec	Insig	Geom	Other	Rej	Remarks
									Materials Engineering & Inspection Services Ginna Sta. Central Records Category: 15.23-12 Reviewed by: [illegible] Date: 3/12/94
VT-3	941118	RLM	3/10/94	X					EXAM PERFORMED FOR
									THE PURPOSE OF:
									LOOKING FOR BORIC
									ACID DEPOSITS THAT
									COULD INDICATE POTENTIAL
									LEAKS AT THE CONTROL
									ROD DRIVE PENETRATIONS
									NO RECORDABLE INDICATIONS
									LIMITATIONS:
									INSULATION APPROX
									4" to 6" ABOVE
									PENETRATIONS. LOOKING
									INTO A 12" DIA HOLE

RECEIVED FEB 8 CENTRAL RECORDS QA LIFETIME

Summarized By: W. S. Gallaway SNT Level II Date 3/12/94

Reviewed By: [signature] SNT Level III Date 3/12/94

RGE

Sheet # 941118

MATERIALS ENGINEERING AND INSPECTION SERVICES
RECORD OF VISUAL EXAMINATION OF EQUIPMENT AND COMPONENTS

Site Ginna Station — Summary Sheet # M94038

Applicable Code N/A — Date 3-10-94 — Time 22:00

System Id RX VESSEL HEAD — Id CONTROL ROD DRIVE PENT.

Description BORIC ACID CRYSTALS AT PENT. — VT Procedure NDE 100-9 Rev 3

Drawing No. N/A — Location N/A . N/A — PDR #: N/A

EXAMINATION FOR:

ISI _____ Maintenance _____ Construction _____ R/R Mod _____ Other X O

Examiner (Print) ROBERT L MARTIN — Level II

Examiner (Print) N/A — Level N/A

Light Meter MFG/Ser # GE 214 L-164 — Illumination Used >100 FT/CDS

Gray Card 1/32" Direct X 1/64" Remote ____

Visual Equipment/Aids FLASHLIGHT CAMERA

Surface Condition AS MANUFACTURED

Limitations INSULATION APPROX. 4" TO 6" ABOVE PENETRATIONS, ALSO LOOKING IN A 12" DIA HOLE

Loc L	Loc W	Loc U/D	Type R/L	Size D/L	Remarks
					EXAM PERFORMED FOR THE PURPOSE OF:
					LOOKING FOR BORIC ACID DEPOSITS
					THAT COULD INDICATE POTENTIAL LEAKS
					AT THE CONTROL ROD DRIVE PENETRATION.
					NO RECORDABLE INDICATIONS

PART A

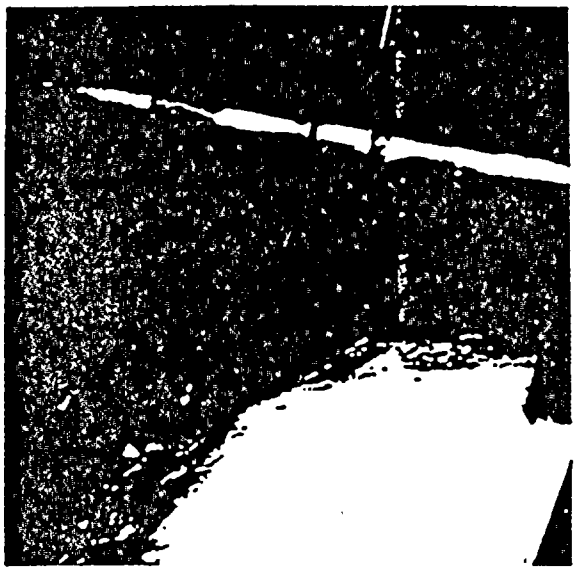
RGE

Sheet # 941118

MATERIALS ENGINEERING AND INSPECTION SERVICES
RECORD OF VISUAL EXAMINATION OF EQUIPMENT AND COMPONENTS

COMPONENT IDENTIFICATION: CONTAINMENT VENT

SKETCH OR PHOTO:



COMMENTS: (1) ENHANCEMENT TO SE-05 CRITERIA.
SEE MT-5

DISPOSITION: ACCEPTABLE

EXAMINER'S SIGNATURE Robert L Wentzel DATE 3-10-94

EXAMINER'S SIGNATURE N/A DATE N/A

REVIEWED BY: [signature] Name — Level — 3/10/94 Date

PART B

RX VESSEL HEAD
ENHANCEMENT TO 88-05 CRITERIA

ENHANCEMENT OUTLINE

1.0 In accordance with NRC recommendation's the scope of this outline is to provide enhancements to NRC Generic Letter 88-05 requirements which are addressed by Station Procedure A1407. These guidelines are being provided to ME&IS for one time application for use in performing a visual examination of the area associated with the Control Rod Drive Mechanism penetrations on the Ginna Station RX Vessel.

2.0 The intent of the enhanced requirements is to provide direction on visual examination of the Reactor Vessel Head in the area of the Control Rod Drive Penetrations.

3.0 The visual examination of the head area is intended to reveal any large deposits of Boric Acid Crystals which may have formed on the vessel head.

4.0 Note that due to previously addressed NCR's, on the Conoseals of the head, trace deposits of Boric Acid may be found scattered throughout the head area.

5.0 The examination should be a visual exam above the existing insulation with documented results stating the existence or absence of large Boric Acid Deposits.

The insulation which is in place above the vessel head is the original insulation installed during plant construction. Note that this asbestos insulation is believed to be in a "Friable" condition and therefore would not be capable of restraining the normal plant operating pressure associated with the RCS. Therefore any leakage through a CRDM penetration would present itself in the form of Boric Acid deposits above the insulation.

Reporting

1.0 Accumulations which are larger than trace amounts or display a natural build up of Boric Acid deposit that could indicate potential leak paths initiating from the CRDM penetrations shall be noted.

2.0 Appropriate action shall be initiated by NES, ME&IS And Station personnel to investigate the source of the boric acid build up.

3.0 Depending on the item 2 investigation results, appropriate corrective action should be initiated to address the identified concern.

4.0. If large deposits are identified, the amount of Boric Acid and its location shall be reported using an appropriate process.

Data to be included in the report should include as a minimum the following information:

A. Location of the Boric Acid deposit could be established using the Center line of the vessel head and the existing 0 through 360 degree markings on the vessel head to locate the Boric Acid deposit angle relative to the 0 degree position. Note that the markings are on the vessel head flange in the area of the flange bolt holes.

B. In lieu of number 1, or in addition to number 1, the location of the Boric Acid deposit could be identified by an existing numbering system used by ME&IS for bi-metallic weld inspections on the CRDM penetrations.

C. Any additional information on the specific source of the Boric Acid Deposit should be included.

Disposition Action Plan

If it is determined that additional reporting of a Boric Acid deposit is required, appropriate corrective action will be a function of the source of the Boric Acid.

Prepared By: _____
Mechanical Engineer

Reviewed By: _____
Mechanical Engineer

Approved By: _____
Manager Mechanical Engineering

y:\crdm_act.pln

Enclosure 2
ISI VT-2 Examination Results of Attachment Weld

RG&E

MATERIALS ENGINEERING AND INSPECTION SERVICES
RG&E EXAMINATION SUMMARY RECORD

Sheet # 89330000 537

45-134

Examination for: ISI: X Maint: _____ Other: _____

Site: GINNA STATION System: HYDROSTATIC TESTS CL-1 QUALITY GROUP A

ID: PT-7 Description: REACTOR COOLANT SYSTEM

Exam Type	Exam Rec. #	Examiner	Date	Results: No Rec	Results: Insig	Results: Geom	Results: Other	Results: Rej	Remarks
VT-2	891537	JO	5/24/89	X	X				Insig: Light rust on surface. Numerous minor packing leaks, one seal leak and Boric acid indications, all listed on Supplimental Report Form. Also noted: Thermocouple BS-R 3786, wire disconnected, *Snubber H-3 overfilled, oil on floor.
									VT-2 exam for PT-7 is Acceptable.

Summarized By: _____ SNT Level NA Date 5/25/89

Reviewed By: _____ SNT Level II Date 5/25/89

RGE

Sheet # 891537

MATERIALS ENGINEERING AND INSPECTION SERVICES
RECORD OF VISUAL EXAMINATION FOR LEAKAGE

Site: GINNA STATION Summary Sheet # 89330000

Applicable Code: ASME SECTION XI Date: 5/23/89 Time: 23:20

System ID: REACTOR COOLANT SYSTEM

VT Procedure: NDE100-12R0 Test Procedure: PT-7

Exam. Boundry Drawing No.: ________ Location: N/A , N/A

EXAMINATION FOR:
ISI X MAINTENANCE ____ CONSTRUCTION ____ OTHER ____

Examiner (Print) J. Oliver, G. Blais, F Klepack Level II, II, trainee

Examiner (Print) T. Sval, B. Pazda, J. Germain, P. Phelan PEP Level II, II, II

Gray Card: Yes X No ____
Visual Equipment/Aids: Flashlights, mirrors, Technoterm 9200 346°F

EXAMINATION CONDITION:
X Noninsulated X Insulated ____ Inaccessible X Buried
(These conditions shall be identified on the attached drawing)

VISUAL EXAMINATION OBSERVED CONDITIONS:

TEST METHOD		HOLD TIME		LEAKAGE	RI / NI / INSIG
SYSTEM LEAKAGE:		NOT REQ.		INSULATED:	/ / X (2)
				UNINSULATED:	/ / X (2)
SYSTEM FUNCTIONAL:		10 MIN.		BURIED SYSTEM:	/ N/A /
SYSTEM INSERVICE:		4 HOUR IN OPS.		COLLECTION SYSTEM:	/ X /
SYSTEM HYDROSTATIC:	X	10 MIN (4 HRS) (NON INS/INS)	4 HRS	BORIC ACID RESIDUES:	/ / X (2)
SYSTEM PNEUMATIC:		10 MIN.		CORROSION:	/ / X (1)

CONDITIONS TO BE VERIFIED

CALIBRATION:
PRESSURE GAGE # 8501710N RANGE 0-5000 CALIBRATION DATE 5/16/89
TEMPERATURE GAUGE # L147 CALIBRATION DATE 2/22/89
RELIEF VALVE # N/A CALIBRATION DATE N/A
STOP WATCH # N/A (If used) VALVE LINE UP OK N/A JO.

TESTING:
TEMPERATURE 340°F TIME TEST PRESSURE ACHIEVED 19:10
TIME EXAMINATION STARTED 23:20 TEST STOP TIME 01:30
FLOWMETER: UPSTREAM N/A PRESSURE DECAY: HOLD TIME N/A 4 HRS 16 min
DOWNSTREAM N/A PRESSURE N/A

PART A

RGE

Sheet # 891537

MATERIALS ENGINEERING AND INSPECTION SERVICES
RECORD OF VISUAL EXAMINATION FOR LEAKAGE

SYSTEM IDENTIFICATION: REACTOR COOLANT SYSTEM

SKETCH OR PHOTO:

Comments: ② See Attached List
V.T.-2 Examination FOR PT-#7 is Acceptable.
① Light Rust on surfaces.

DIRECT VISUAL EXAMINATION

Examination was performed at an angle of 90 degrees, but not less than 30 degrees and within a distance of 24 inches using a 1/64" Black Line Gray Card in the most discernable location on the area to be examined.

Initial J.O.

REMOTE VISUAL EXAMINATION

Should remote visual examination be substituted for direct visual examination, then the resolution capable shall be at least equivalent to that obtained by the direct visual examination using the 1/64" Black Line Gray Card.

Initial J.O.

EXAMINER'S Signature [signatures] Date 5/24/99

EXAMINER'S SIGNATURE [signatures] DATE: 5/24/99

EXAMINER'S SIGNATURE N/A [initials] DATE:

REVIEWED BY: [signature] (NAME) II (LEVEL) 5/25/99 (DATE)

PART B

RGE AND

SHEET # 891537

MATERIALS ENGINEERING DIVISION
SUPPLEMENTAL REPORT FORM

SUMMARY SHEET # 89330060 Date 5-23-89

COMPONENT IDENTIFICATION: RCS PER P.T.-7 Hydro

SKETCH OR PHOTO:

The following is a summary of results found during walkdown of the final Plateau of PT-7.

Team #1 Tim Snell, Joe Oliver. A.C. Bloops, A sump.
Team #2 Bill Pelzer, Frank Klepaki, Inter. Level, Accum Non Regen HX, Seal Table.
Team #3 Pat Phelan, George Blais. PZR, Reactor Head.

ID	Condition	Comments
V 721	Packing Leak	MINOR
V 200	Packing Leak	MINOR
[illegible]3	Packing Leak	N/A
[illegible]504	Boric acid	DRIPPING
V 427	Leaking on seal Bonnet	N/A
V431A	Leak on Packing Land	BROWN BORON ON same area
V593A	Packing Leak	SLIGHT, NO DRIPPING, Moist
V852C	Packing Leak	N/A
V878B	Packing Leak	N/A
CV123	Packing Leak	N/A
V852D	Packing Leak	N/A
V865	Packing Leak	SLight
Seal Table	Valve G-6, C-9, G-11, G-9	Packing Leaks
V891	Packing Leak	MINOR
AOV392A		
V535	Packing Leak	SLIGHT
V431B	Dry Boric Acid	Stud Areas.

Frank Klepaki

COMMENTS: In Addition Thermocouple # B5-R3786 was found to have a wire Disconnected. CS. Eonosea Snubber H-3, Located N/A at Top of PZR was overfilled and had oil on Basement Floor below.

45-1455