Progress Energy

JUL 2 7 2004

U.S. Nuclear Regulatory Commission
ATTN: NRC Document Control Desk
Washington, DC 20555

SERIAL: HNP-04-097
10 CFR 50.54(f)

SHEARON HARRIS NUCLEAR POWER PLANT UNIT 1
DOCKET NO. 50-400/LICENSE NO. NPF-63

60-DAY RESPONSE TO NRC BULLETIN 2004-01 FOR THE INSPECTION OF ALLOY 82/182/600 MATERIALS USED IN THE FABRICATION OF PRESSURIZER PENETRATIONS AND STEAM SPACE PIPING CONNECTIONS AT PRESSURIZED-WATER REACTORS

Ladies and Gentlemen:

On May 28, 2004, the Nuclear Regulatory Commission (NRC) issued NRC Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors." The NRC Bulletin requested all subject PWR licensees to provide a response within 60 days of the date of the Bulletin. Pursuant to 10 CFR 50.54(f), attached is the 60-day response to the subject NRC Bulletin for the Harris Nuclear Plant (HNP).

Attachment 1 to this letter provides the information requested in Item 1 (i.e., 1(a), 1(b), 1(c) and 1(d)) of the Bulletin. The information requested in Item 2 will be submitted, as requested, within 60 days after plant startup following the next inspection of the Alloy 82/182/600 pressurizer penetrations and steam space piping connections.

Attachment 1 concludes that HNP satisfies the applicable regulatory requirements related to the integrity of the Reactor Coolant Pressure Boundary.

Attachment 4 provides the commitments to this letter.

Please refer any questions regarding this submittal to Mr. John Caves, Supervisor – Licensing/ Regulatory Programs, at (919) 362-3137.

I declare, under penalty of perjury, that the attached information is true and correct.
(Executed on JUL 2 7 2004 .)

Sincerely,

R. J. Duncan, II
Director – Site Operations

Progress Energy Carolinas, Inc.
Harris Nuclear Plant
P.O. Box 165
New Hill, NC 27562

A110

RJDII/jpy

Attachments

1. 60-Day Response to NRC Bulletin 2004-01
2. References
3. Tables
4. Commitments

c: Mr. R. A. Musser (NRC Senior Resident Inspector)
Ms. B. O. Hall (Section Chief, N.C. DENR)
Mr. C. P. Patel (NRR Project Manager, NRC)
Dr. W. D. Travers (NRC Regional Administrator, Region II)

Attachment 1 to Serial: HNP-04-097
60-Day Response to NRC Bulletin 2004-01

Introduction

On May 28, 2004, the Nuclear Regulatory Commission (NRC) issued Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors." In the Bulletin, the NRC requested that specific information concerning licensees' inspection program for pressurizer and steam space piping connections be provided within 60 days of the date of the Bulletin. The Harris Nuclear Plant (HNP) provides the following requested information:

NRC Request

(1)(a) A description of the pressurizer penetrations and steam space piping connections at your plant. At a minimum, this description should include materials of construction (e.g., stainless steel piping and/or weld metal, Alloy 600 piping/sleeves, Alloy 82/182 weld metal or buttering, etc.), joint design (e.g., partial penetration welds, full penetration welds, bolted connections, etc.), and, in the case of welded joints, whether or not the weld was stress-relieved prior to being put into service. Additional information relevant with respect to determining the susceptibility of your plant's pressurizer penetrations and steam space piping connections to PWSCC should also be included.

Response 1(a)

Table A identifies the pressurizer penetrations and steam space piping connections which are constructed using Alloy 82/182 weld material at Harris Nuclear Plant (HNP). None of the pressurizer penetrations or steam space piping connections are constructed using Alloy 600 material. Also included in the table are descriptions of the welded joint design and whether or not the weld was stress-relieved prior to being put into service.

The following pressurizer penetrations are constructed using stainless steel piping and stainless steel weld material and, as such, are not susceptible to Primary Water Stress Corrosion Cracking (PWSCC), and will not be addressed further in this response:

- Pressurizer instrumentation nozzles
- Pressurizer sample nozzles
- Pressurizer heater sleeves

In addition, the pressurizer surge line is not within the scope of this Bulletin and, beyond the information regarding materials included in Table A, will not be addressed further in this response.

NRC Request

(1)(b) A description of the inspection program for Alloy 82/182/600 pressurizer penetrations and steam space piping connections that has been implemented at your plant. The description should include when the inspections were performed; the areas, penetrations and steam space piping connections inspected; the extent (percentage) of coverage achieved for each location which was inspected; the inspection methods used; the process used to resolve any inspection findings; the quality of the documentation of the inspections (e.g., written report, video record, photographs); and, the basis for concluding that your plant satisfies applicable regulatory requirements related to the integrity of pressurizer penetrations and steam space piping connections. If leaking pressurizer penetrations or steam space piping connections were found, indicate what followup NDE was performed to characterize flaws in the leaking penetrations.

Response 1(b)

Table B describes the inspection program which is currently implemented at HNP for the pressurizer penetrations which have been identified as being constructed using Alloy 82/182 weld material. The Table lists the inspection technique, frequency and extent of coverage for these inspections. The specific date of each inspection is also listed.

The pressurizer penetrations are American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code Section XI, Class 1, Category B-F, Item Number B5.40, and have been examined in accordance with the ASME Section XI rules that were applicable at the time of examination. The 1st Interval examinations were performed in accordance with the rules of ASME Section XI 1983 Edition, with Summer 1983 Addenda. The 2nd Interval (current) examinations were performed in accordance with the rules of ASME Section XI, 1989 Edition, with no Addenda. See Table B for specific information regarding each connection.

These inspections are scheduled with the remainder of the In-Service Inspection (ISI) exams and are performed by inspectors who are trained and qualified in accordance with ASME Code requirements. In the inspections performed to date, Liquid Penetrant (PT) and Ultrasonic (UT) examinations were performed with no recordable indications detected.

In addition to the Code-required UT techniques, the ultrasonic examinations were enhanced by the use of longitudinal wave techniques. Due to the nozzle to safe end configurations, the UT examinations were limited to approximately 97.5% completion of the Code-required volume.

Response 1(b) (Continued)

The documentation has been in the form of written Non-Destructive Examination (NDE) reports and each report has received reviews by an NDE Level III Inspector, the Owner representative, and the Authorized Nuclear Inservice Inspector. Results of the examination have been reported to the NRC within 90 days of completion of the respective refueling outage.

In addition to NDE examinations, the pressurizer and associated piping are inspected for evidence of leakage during scheduled refueling outages and selected forced outages in accordance with the HNP Boron Acid Corrosion Control Program (Plant Procedure EGR-NGGC-0207, *Boric Acid Corrosion Control Program*) and Containment boric acid walkdown procedure (Operations Periodic Test, OPT-1519, *Containment Visual Inspection for Boron and Evaluation of Containment Sump Inleakage Every Refueling Outage Shutdown*). Potential targets as well as the specific components are inspected for evidence of leakage. To date, no evidence of leakage has been identified during these inspections.

Also during refueling outages, certified VT-2 inspectors perform visual exams on the Class 1 pressure boundary in accordance with Plant Procedure EST-227 (*ASME Section XI Class 1 System Pressure Test*), as required by the ASME Code, Section XI. The scope of the inspection boundary includes the pressurizer penetrations and associated piping.

The Acceptance Standard provided within the 1989 Edition of the ASME B&PV Code for the referenced VT-2 visual examinations is identified in IWB-3522, which requires correction of pressure boundary leakage prior to continued service. HNP maintains procedures and programs to implement these requirements (EGR-NGGC-0207 and PLP-652, *ASME Boiler and Pressure Vessel Code Section XI Pressure Test Program*).

The acceptance criterion for these procedures is that no through-wall leakage exists. In the event that leakage is identified, corrective actions are taken in accordance with plant procedures and the ASME Code prior to continued plant operation. Any leakage that may affect system operability will be quantified, and dispositioned per Plant Procedure AP-618, *Operability Determinations*. Plant procedures require that the evaluations of leakage consider the effect on components in the leak path.

Table B also indicates when the initial 100% Bare Metal Visual (BMV) examination is currently scheduled to be performed. This examination is being performed to comply with guidance provided by the Materials Reliability Program (MRP) in the letter from Leslie Hartz dated January 20, 2004 (MRP 2003-039), and is in response to industry experience as discussed in NRC Information Notice 2004-11.

Response 1(b) (Continued)

These examinations meet or exceed the requirements of ASME Section XI and satisfy all applicable regulatory requirements. A detailed explanation of the basis for this conclusion is in the response to NRC Request (1)(d), below.

NRC Request

(1)(c) A description of the Alloy 82/182/600 pressurizer penetration and steam space piping connection inspection program that will be implemented at your plant during the next and subsequent refueling outages. The description should include the areas, penetrations and steam space piping connections to be inspected; the extent (percentage) of coverage to be achieved for each location; inspection methods to be used; qualification standards for the inspection methods and personnel; the process used to resolve any inspection indications; the inspection documentation to be generated; and the basis for concluding that your plant will satisfy applicable regulatory requirements related to the structural and leakage integrity of pressurizer penetrations and steam space piping connections. If leaking pressurizer penetrations or steam BL 2004-01 space piping connections are found, indicate what followup NDE will be performed to characterize flaws in the leaking penetrations. Provide your plans for expansion of the scope of NDE to be performed if circumferential flaws are found in any portion of the leaking pressurizer penetrations or steam space piping connections.

Response 1(c)

Table C describes the inspection program which will be implemented at HNP for the pressurizer penetrations which have been identified as being constructed using Alloy 82/182 weld material. The Table lists the inspection technique, frequency and extent of coverage for these inspections. The In-Service Inspection (ISI) examinations, UT (PDI) and PT, will be scheduled and performed in accordance with the rules of ASME Section XI unless specific relief is granted. The examinations will be performed by inspectors who are trained and qualified in accordance with ASME Code requirements.

In addition, BMV exams will be performed on these welds during every refueling outage until mitigation is performed, additional guidance is provided by the MRP, or new Code or regulatory requirements are imposed. Visual aids, as necessary, and visual examination personnel will be certified in accordance with Progress Energy's written practice and ASME Section XI. Detection of boric acid residue is specifically addressed in Visual Examination training for certification of VT-2 examiners.

The BMV exams were scheduled in response to recommendations contained in MRP 2003-039, issued January 20, 2004. Under the purview of the NEI 03-08 Materials Initiative, the BMV exams were categorized as "NEEDED" for butt welded primary pressure boundary locations containing Alloy 600/82/182 in EPRI MRP 2004-05, issued April 2, 2004.

Response 1(c) (Continued)

Also, as discussed in the response to NRC Request (1)(b) above, inspections of the pressurizer penetrations and associated piping at HNP will continue to be performed as part of the ASME Section XI Class 1 system leakage test. These inspections are performed during each refueling outage with the system at normal operating pressure and temperature, with insulation on. These inspections are VT-2 exams performed under HNP Plant Procedure EST-227 in accordance with ASME Section XI requirements, and are documented on a system pressure test report in accordance with the HNP ASME Section XI Program.

Finally, a visual examination of borated system pressure boundary components in the Containment Building is performed near the beginning of each RFO, as part of the Boric Acid Corrosion Control Program. The examination will be documented by a report in accordance with HNP Plant Procedure OPT-1519.

Each finding of evidence of leakage will be documented. Video and photographic images taken to support the examination findings will supplement the report as necessary. The source of the leakage will be identified. Collection of samples for chemical and/or isotopic analysis would be used as appropriate to help identify the source and/or determine the age of the deposits.

HNP will utilize the Boric Acid Corrosion Control Program and the Corrective Action Program (Plant Procedure CAP-NGGC-0200, *Corrective Action Program*), as applicable, to evaluate findings of boric acid deposits or other evidence of leakage. In addition, where evidence of leakage is discovered by visual examination, NDE capable of determining crack orientation will be performed in order to accurately characterize the flaw and the extent of the condition. The specific type of NDE examination to be performed will be determined based upon location, configuration and other relevant factors. A decision will then be made, consistent with EPRI guidance and industry experience, on the corrective action to be taken and the need to expand the scope of NDE examinations.

The basis for concluding that the HNP Boric Acid Corrosion Control Program satisfies applicable regulatory and Code requirements was provided in the HNP response to the NRC's Request for Additional Information on Bulletin 2002-01 (Question 9), and in the HNP 60-Day Response to Bulletin 2002-01. Furthermore, as described above, HNP has been proactive in responding to industry experience by implementing additional and more detailed inspections for the pressurizer penetrations, which exceed ASME Code, Section XI, and 10 CFR 50.55a, "Codes and Standards," requirements for the examination, evaluation, and repair of code class components. This inspection program will ensure that the structural and leakage integrity of the pressurizer penetrations is maintained.

Response 1(c) (Continued)

HNP will continue to monitor industry experience, Code changes and MRP recommendations to ensure that our inspection plans are prudent based on the knowledge available in order to ensure that the structural and leakage integrity of the pressurizer penetrations and associated piping is maintained.

These examinations meet or exceed the requirements of ASME Section XI and satisfy all applicable regulatory requirements. A detailed explanation of the basis for this conclusion is in the response to NRC Request (1)(d), below.

NRC Request

(1)(d) In light of the information discussed in this bulletin and your understanding of the relevance of recent industry operating experience to your facility, explain why the inspection program identified in your response to item (1)(c) above is adequate for the purpose of maintaining the integrity of your facility's RCPB and for meeting all applicable regulatory requirements which pertain to your facility.

Response 1(d)

HNP has concluded that the inspections and evaluations described above comply with all applicable regulatory, ASME Code and Technical Specification (TS) requirements. The following discussion provides a description of how HNP satisfies these regulations and requirements.

Compliance with 10 CFR 50.55a, "Codes and Standards"

10 CFR 50.55a, "Codes and Standards," requires that inservice inspection and testing be performed in accordance with the requirements of the ASME B&PV Code, Section XI, "Inservice Inspection of Nuclear Plant Components." Section XI contains applicable rules for examination, evaluation, and repair of code class components, including the Reactor Coolant Pressure Boundary (RCPB).

The HNP Second Ten-Year Inservice Inspection (ISI) Interval, which commenced on February 2, 1998, has been implemented in accordance with the ASME B&PV Code, 1989 Edition with no Addenda. Examination requirements are contained within Table IWB-2500-1, Examination Category B-P, "All Pressure Retaining Components." The required extent and frequency (every refueling outage) of examination for Examination Category B-P is also a VT-2 visual examination of reactor vessel pressure retaining boundary.

The Acceptance Standard provided within the 1989 Edition of the Code for the referenced VT-2 visual examinations is identified as IWB-3522, which requires correction of pressure boundary leakage prior to continued service. HNP maintains procedures and programs to implement these requirements (EGR-NGGC-0207 and PLP-652). The acceptance criterion for these procedures is that no through-wall leakage exists. In the event that leakage is identified, corrective actions are taken in accordance with plant procedures and the ASME Code prior to continued plant operation.

Response 1(d) (Continued)

HNP has performed inspections of the RCPB during previous refueling outages using volumetric, surface, and visual examination techniques. The visual examinations, as required by plant procedures, include both direct and indirect observation for leakage. Direct examinations are performed on bolted connections in the RCPB. Indirect inspection is performed through the observation of evidence of leakage; i.e., signs of boric acid accumulation. These visual inspections meet the requirements of Section XI Table IWB-2500-1. The visual inspections also meet the requirements of NRC Generic Letter 88-05, "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants."

If the VT-2 examinations detect the conditions described in IWB-3522.1, then corrective actions required would be taken in accordance with IWA-5250(b) (as modified by Relief Request 2RG-009) and the HNP CAP in accordance with Plant Procedure CAP-NGGC-0200. Plant Procedures EGR-NGGC-0207 and PLP-652 require that corrective action be taken to repair boric acid leaks or evaluated to confirm that leaks left in service will not challenge the integrity of the RCPB. Plant Procedure EGR-NGGC-0207 also requires that consideration be given to corrective actions that will prevent leak recurrence.

Compliance with Technical Specifications

10 CFR 50.36, "Technical Specifications," provides requirements for Technical Specifications for licenses associated with production and utilization facilities. 10 CFR 50.36(c)(2) provides requirements specific to "Limiting Conditions for Operation," and 10 CFR 50.36(c)(3) provides requirements relative to "Surveillance Requirements." The HNP Operating License and TS were developed and approved in accordance with these requirements and provide Limiting Conditions for Operation (LCO), Action Statements, and Surveillance Requirements (SR) regarding the RCPB. The current HNP TS requirements, e.g., LCOs and SRs, are consistent with the requirements of 10 CFR 50.36 and specify actions to maintain plant operations within analysis and design limits.

HNP TS 3.4.6, "Reactor Coolant System Operational Leakage," provides criteria and limits regarding primary system leakage, including LCO 3.4.6.2, which prohibits Reactor Coolant System (RCS) pressure boundary leakage. Verification that RCS operational leakage is within limits by performance of an RCS water inventory balance is performed at least once per 72 hours in accordance with SR 4.4.6.2.1.d. Should pressure boundary leakage exist, Condition "a" would be entered which requires the unit to be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

Response 1(d) (Continued)

As noted in the paragraph above, the RCS leakage detection systems provide the means to detect small levels of RCS leakage. An RCS leak of sufficient magnitude to be detected by on-line leak detection systems would be evaluated in accordance with TS requirements and the appropriate actions taken to ensure that further degradation of the RCPB does not ensue.

Visual inspections conducted during refueling outages provide the opportunity to access areas/components within the plant that are normally not accessible during plant operations. As discussed in the responses to NRC Requests 1(b) and 1(c) above, these inspections are conducted in a manner which ensures that leakage is identified. Once identified, plant procedures ensure that conditions are properly evaluated and appropriate corrective actions are taken.

Consideration of recent industry operating experience

In addition to Code-required inspections, HNP has implemented an enhanced inspection program which takes into account recent industry operating experience in order to maintain the integrity of the RCPB. We are complying with the MRP guidance related to the pressurizer penetrations, as well as the other Alloy 600/82/182 locations. During the upcoming refueling outage, HNP will complete the initial BMV exams on the Alloy 600/82/182 components. HNP will continue to monitor industry experience, Code changes and MRP recommendations to ensure that our inspection plans are prudent based on the knowledge available in order to ensure that the structural and leakage integrity of the RCPB is maintained.

NRC Request

(2) Within 60 days of plant restart following the next inspection of the Alloy 82/182/600 pressurizer penetrations and steam space piping connections, the subject PWR licensees should either:

(a) submit to the NRC a statement indicating that the inspections described in the licensee's response to item (1)(c) of this bulletin were completed and a description of the as-found condition of the pressurizer shell, any findings of relevant indications of through-wall leakage, followup NDE performed to characterize flaws in leaking penetrations or steam space piping connections, a summary of all relevant indications found by NDE, a summary of the disposition of any findings of boric acid, and any corrective actions taken and/or repairs made as a result of the indications found,

or

(b) if the licensee was unable to complete the inspections described in response to item (1)(c) of this bulletin, submit to the NRC a summary of the inspections performed, the extent of the inspections, the methods used, a description of the as-found condition of the pressurizer shell, any findings of relevant indications of through-wall leakage, followup NDE performed to characterize flaws in leaking penetrations or steam space piping connections, a summary of all relevant indications found by NDE, a summary of the disposition of any findings of boric acid, and any corrective actions taken and/or repairs made as a result of the indications found. In addition, supplement the answer which you provided to item (1)(d) above to explain why the inspections that you completed were adequate for the purpose of maintaining the integrity of your facility's RCPB and for meeting all applicable regulatory requirements which pertain to your facility.

Response 2

HNP will comply with this request by submitting the information described above to the NRC within 60 days of plant restart following the next scheduled inspection of the components listed in Table C.

Attachment 2 to Serial: HNP-04-097
References

1. MRP 2003-039, "Recommendations for Inspection of Alloy 600/82/182 Pressure Boundary Components," January 20, 2004
2. MRP 2004-05, "Needed Action for Visual Inspection of Alloy 82/182 Butt Welds and Good Practices Recommendations for Weld Joint Configurations," April 2, 2004
3. CP&L to NRC letter, HNP-02-164, dated January 24, 2003, Harris Nuclear Plant - Request for Additional Information, Bulletin 2002-0 1, "Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity"
4. CP&L to NRC letter, HNP-02-063, dated May 15, 2002, Harris Nuclear Plant - 60-Day Response to Bulletin 2002-0 1, "Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity"

Attachment 3 to Serial: HNP-04-097
Tables

Table No.	Table Description
A	HNP Pressurizer Penetrations and Steam Space Piping Connections Constructed Using Alloy 82/182 Weld Material
B	Summary of Past and Scheduled Inspections
C	Summary of Future Inspection Plans

Attachment 3 to Serial: HNP-04-097
Tables

Table A
HNP Pressurizer Penetrations and Steam Space Piping Connections Constructed Using Alloy 82/182 Weld Material

Component	Quantity	Size	Component Material	Weld Type	Buttering	Stress Relief
PZR Spray Nozzle Safe End	1	4" Sch. 160	SA-182 Gr. F-316L	Full Penetration Butt Weld	Alloy 82/182 (Inconel)	Post-weld heat treatment
PZR Surge Nozzle Safe End [1]	1	14" Sch. 160	SA-182 Gr. F-316L	Full Penetration Butt Weld	Alloy 82/182 (Inconel)	Post-weld heat treatment
PZR Safety and Relief Nozzle Safe End	4	6" Sch. 160	SA-182 Gr. F-316L	Full Penetration Butt Weld	Alloy 82/182 (Inconel)	Post-weld heat treatment

[1] Description provided for information only. PZR Surge lines are not within the scope of this Bulletin.

Attachment 3 to Serial: HNP-04-097
Tables

Table B
HNP Pressurizer Penetrations and Steam Space Piping Connections:
Summary of Past and Scheduled Inspections

			Interval 1			Interval 2			
Component [1] (ID)	Category Item No. Class	Inspection Method / Extent of Coverage	Period 1	Period 2	Period 3	Period 1	Period 2	Period 3 (ends May 2007)	Comments
Spray Nozzle to Safe End (II-PZR-01NSEW-16)	B-F	PT / 100%	8/29/88			10/30/98			VT-2 Performed Every Outage
	B5.40	UT / 100%	8/30/88			11/10/98			
	1	Bare Metal Visual / 100%						BMV Scheduled for 10/04	
Safety Nozzle to Safe End (II-PZR-01NSEW-17)	B-F	PT / 100%		4/20/91		10/30/98			VT-2 Performed Every Outage
	B5.40	UT / 97.5%		4/22/91		11/10/98			
	1	Bare Metal Visual / 100%						BMV Scheduled for 10/04	
Safety Nozzle to Safe End (II-PZR-01NSEW-18)	B-F	PT / 100%		4/20/91		10/30/98			VT-2 Performed Every Outage
	B5.40	UT / 97.5%		4/22/91		11/10/98			
	1	Bare Metal Visual / 100%						BMV Scheduled for 10/04	
Safety Nozzle to Safe End (II-PZR-01NSEW-19)	B-F	PT / 100%			4/15/97	10/30/98			VT-2 Performed Every Outage
	B5.40	UT / 97.5%			4/15/97	11/10/98			
	1	Bare Metal Visual / 100%						BMV Scheduled for 10/04	
Relief Nozzle to Safe End (II-PZR-01NSEW-20)	B-F	PT / 100%			4/15/97	10/30/98			VT-2 Performed Every Outage
	B5.40	UT / 97.5%			4/15/97	11/10/98			
	1	Bare Metal Visual / 100%						BMV Scheduled for 10/04	

[1] Reference Iso. No. 1-ISI-PZR-1
Abbreviations: UT = Ultrasonic Testing PT = Penetrant Testing

Attachment 3 to Serial: HNP-04-097
Tables

Table C
HNP Pressurizer Penetrations and Steam Space Piping Connections: Summary of Future Inspection Plans

Component (Alloy 82/182 welds)	Quantity	Weld Type	Inspection Techniques	Extent of Coverage	Frequency	BMV Frequency	Degree of Insulation Removal	Insulation Type
PZR Spray Nozzle Safe End Weld	1	Full Penetration Butt Weld	UT/PT	See Table B	Once per 10 years	Every RFO[1]	100%	Fiberglass
PZR Safety And Relief Nozzle Safe End Welds	4	Full Penetration Butt Weld	UT/PT	See Table B	Once per 10 years	Every RFO[1]	100%	Fiberglass

[1] Bare Metal Visual Exams will be performed on these welds until mitigation is performed, additional guidance is provided by the MRP, or new Code or regulatory requirements are imposed.

Abbreviations: UT = Ultrasonic Testing PT = Penetrant Testing BMV = Bare Metal Visual

Attachment 4 to Serial: HNP-04-097
Commitments

The actions committed to by Harris Nuclear Plant (HNP) in this document are identified below. Any other actions discussed in this submittal represent intended or planned actions by HNP. They are described for the NRC's information and are not regulatory commitments.

No.	Commitments	Scheduled Completion Dates
1	HNP will perform bare metal visual inspection exams on the pressurizer penetration and steam space piping connections listed in Table C of this letter (HNP-04-097) during the next refueling outage (RFO-12) scheduled for the Fall 2004 and during every refueling outage until mitigation is performed, additional guidance is provided by the Materials Reliability Program, or new Code or regulatory requirements are imposed.	RFO-12 (Fall 2004) and every refueling outage per the commitment description.