NRC Region Inspection of PNPS - All Items

Item	Request	Response	Inspector	Lead	Category	Update?
522	Provide any self assessments of the ISI program or any related to the HPCI and IGSCC AMPs.	None	Kaufman, Paul	Pardee, Rich	Closed	No
523	Provide system or program health reports for the past 2 years for the ISI, HPCI and IGSCC AMPs.	Provided the requested reports to the inspector.	Kaufman, Paul	Mogolesko, Fred	Closed	No
524	Provide printout of LR data base for questions and answers on AMP.	Printout of LR data base questions and answers on AMPs (all) provided to the inspector by D. Ellis.	Kaufman, Paul	Mogolesko, Fred	Closed	No
525	Provide project/program owners for ISI and the HPCI and IGSCC AMPs.	The list of program owners for the ISI, HPCI and IGSCC were provide to the inspector.	Kaufman, Paul	Mogolesko, Fred	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
526	The program description for the Heat Exchanger Monitoring Program provides little detail regarding the sample population to inspect. Provide additional detail defining the sample to be used. First week's inspection debrief item.	The Heat Exchanger Monitoring Program includes inspection of a sample population from a total of seventeen heat exchangers. Where practical, eddy current inspections of the tubes will be performed. The sample population of these heat exchangers will be determined based on the materials of construction of the heat exchanger tubes and the associated environments as well as the type of heat exchanger (for example, shell and tube type). At least one heat exchanger of each type, material and environment combination will be included in the sample population. This ensures that potential impacts of different design, material and environment combinations will be addressed. This requires a change to the LRA. LRA Section B.1.15, attribute 4, Detection of Aging Effects, is revised as follows (bold words added). 4. Detection of Aging Effects [Note: all of this line bolded, database doesn't support bolding] Loss of material is the aging effect managed by this program. Representative tubes within the sample population of heat exchangers will be eddy current tested at a frequency determined by internal and external operating experience to ensure that effects of aging are identified prior to loss of intended function. Visual inspections of accessible heat exchangers will be performed on the same frequency as eddy current inspections. An appropriate sample population of heat exchangers will be determined based on operating experience prior to inspections. The sample population of heat exchangers will be determined based on the materials of construction of the heat exchanger tubes and the associated environments as well as the type of heat exchanger (for example, shell and tube type). At least one heat exchanger of each type, material and environment combination will be included in the sample population. Inspection can reveal loss of material that could result in degradation of the	Richmond, John	Ivy, Ted	Closed	Yes

Item	Request	Response	Inspector	Lead	Category	Update?
		heat exchangers. Fouling is not addressed by this program. [Note: second sentence bolded in its entirety, database doesn't support bolding]				
527	Identify any coolers associated with RHR and core spray pumps that are not in the Heat Exchanger Monitoring Program. Identify additional AMPs for those heat exchangers, if any.	A review of the Design Basis Documents and Aging Management Reports for the RHR and Core Spray and RBCCW systems did not document any other heat exchangers that cooled RHR and Core Spray pump/motors besides those currently included in the Heat Exchanger Monitoring Program. These are the RHR heat exchangers (E-207), and the Core Spray Pump Motor Thrust Bearing Oil Cooling Coils. The room cooler for the RHR and Core Spray areas are part of the HVAC system and are included in the Periodic Surveillance and Preventive Maintenance program.	Richmond, John	Ivy, Ted	Closed	No
528	Provide list of CRs with condition description for heat exchangers in the Heat Exchanger Monitoring Program for the last 3 years.	A search of PCRS condition reporting database was performed by performing a keyword search that included the all the available component IDs for the heat exchangers in the Heat Exchanger Monitoring program. For heat exchangers with no component ID the pump or EDG component ID was searched. The search documented 66 hits. However, only one was related to a heat exchanger in the Heat Exchanger monitoring program and a copy of the description of this CR was provided. This CR documented a QA finding during the closeout of an earlier CR.	Richmond, John	Ivy, Ted	Closed	No
529	Perform CR search on containment leaks	CR search performed and the resulting CR search result list was provided to the inspector.	O'Hara, Tim	Williams, Murray	Closed	No
530	Provide copies of the last 3 completed ILRT Procedures.	Provided copies of the 1991, 1993, and 1995 ILRT Procedure results. M.E. Williams 9/19/2006	O'Hara, Tim	Williams, Murray	Closed	No
531	Provide the long term trend on ILRT results.	Provided results to inspector.	O'Hara, Tim	Williams, Murray	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
532	Provide extension of ILRT submittal and RAI responses.	The ILRT extension was contained in License Amendment 213. A portion of the related NRC SER (technical analysis with summary of the ILRT results from 1991, 1993, and 1995), TS 4.7.A.4, ENO 2.4.027 (initial submittal), and ENO 2.04.110 (response to RAI) was provided to the inspector. NOTE: No other RAIs noted in the license amendment, and no type A ILRTs performed since 1995.	O'Hara, Tim	Williams, Murray	Closed	No
533	Provide the containment leak rate program document.	Provided containment leak rate program documents to inspector.	O'Hara, Tim	Williams, Murray	Closed	No
534	1. Provide copies of NOP E1 and M591. 2. Provide list of PMs, surveillances and routine tasks performed on heat exchangers that are in the Heat Exchanger Monitoring Program but not in the GL 89-13 program.	1. Copies of both documents given to inspector -9/20/06. 2. Summary sheet ("List of PMs currently performed on components included in the Heat Exchanger Monitoring Program but not covered by GL 89-13 Program") was given to inspector - 9/20/06.	Richmond, John	Lane, Ken	Closed	No
535	1. Provide the CR for HPCI drain line and any associated work requests. 2. Provide HPCI maintenance rule report.	1. Provided the CR for HPCI drain line and the associated work requests. 2. Provided report.	Kaufman, Paul	Mulcahy, Frank	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
536	Provide the following ISI program documentation. 1. 2003 FW nozzle exam data -- RAP 2. PDC narrative for replaced FW spargers -- RAP 3. Copy of ISI Program – RAP (DCC) 4. Copy of Class 1 RISI Program – RAP (DCC) 5. All 4th interval ISI Program relief requests – RAP & W. LOBO (LIST OF RELIEF REQUEST APPROVAL STATUS) 6. Recirc system – how RISI inspection points were selected using risk-informed methodology -- RAP 7. 3 examples of how ISI program has detected aging management issues in lasts 10 years: -- RAP a. also how repairs were performed 8. CR search for any aging management issues, ISI or otherwise – RONN MILLER 9. Torus IWE exam datasheets -- RAP 10. Torus SG Pinney reports – RAP & DAVE RYDMAN 11. Torus recoating procedures (SG Pinney) – DAVE RYDMAN 12. Torus analysis evaluating pit depths relating them to end-of-life – G. MILERIS (REF. CALC M-899) – ordered from DCC 13. Drywell support and Rx. cavity seal arrangement drawings – RAP (SEE AMENDMENT 8 SUBMITTAL) 14. GL87-05 response (drywell corrosion issue) -- RAP 15. Torus vent system vent bowl repair data and procedures -- RAP 16. Last 2-3 surveillances done on Rx cavity flow switch FS-4803 (PNPS 8.E.19) -- RAP 17. Torus walkdown 2pm Tuesday 9/19/06 -- RAP & JEFF KALB 18. 3 examples of where ISI program has previously addressed aging on class I piping.	1. Done. Copies of all most recent FW nozzle exam data provided 1550 hrs 9/21 2. Done. Information provided by G. Mileris 3. Done. Provided copy of ISI Program with latest DRN update. 4. Done. See #3 - Included in ISI Program 5. Done. Reliefs included in #3, ISI Program. Provided latest approval status of reliefs (by W. Lobo) 6. Done. Response for T. O'Hara provided to Fred M. 9-25-06. 7. See response to #18 8. Done. Provided list from R. Miller 9. Done. Copies provided all data 1550 hrs 9/21 10. Done. Provided most recent three SG Pinney reports (to be returned) 11. Done. Provided procedure (from D. Rydman) 12. Done. Provided Calc. M899 13. Done. Provided Amendments 1,2 & 8 14. Done. Provided response letter BECO 87-074 (from D. Ellis) 15. Done. Response for T. O'Hara provided to Fred M. 9-25-06. 16. Done. Provided completed surv. procedures from 2001, 2003 and 2006, with CR and MR related to 2006 surveillance testing. 17. Torus walk down was conducted on Tuesday @2:00 pm. Five CRs issued. 18. Done. Provided response for T. O'Hara to Fred M. 9-27-06. Additional Information requested on 10/06/2006. Additional information provided below: Three examples believed best met the criteria were given to the NRC on Monday October 2, 2006 A review of every ISI and CR report for the last ten years was performed to find instances of ISI inspections identifying aging issues in Class I systems. Only three examples meeting these criteria were found and all three were given to the NRC on Monday 10/2/2006. The reports were: 1. CR-PNP-2005-01982- identified a ¾" crack and ¼" linear indication on lug fillet welds.	O'Hara, Tim	Pardee, Rich	Open – NRC Reviewing	No

Item	Request	Response	Inspector	Lead	Category	Update?
		2. CR PNP-2005-01839 identified a loose nut. 3. PR99.1296-wear observed on pipe OD where it rubs on a support. The ISI engineer noted that the susceptible 304 SS Class I system piping was replaced in 1985, and most of the Class I systems are SS. As a consequence, the ISI program identifies few if any aging problems in Class I piping. ISI is a proven and industry accepted method for identifying aging effects in Class I piping systems.				

Item	Request	Response	Inspector	Lead	Category	Update?
537	How does Pilgrim treat floor drains as part of license renewal.	As discussed in the PNPS Scoping Report LRPD-01 the floor drains are included in the Radwaste system and the Plumbing and Drains system. The Radwaste system disposes of radioactive and potentially radioactive waste and the Plumbing and Drains system disposes of non process plumbing and drainage such as the roof drains. The radwaste system has the following intended functions for 10CFR54.4(a)(1). • Support maintaining secondary containment. • Support primary containment isolation. The system has the following intended function for 10CFR54.4(a)(2). • Maintain integrity of nonsafety-related components such that no physical interaction with safety-related components could prevent satisfactory accomplishment of a safety function. The floor drain portion of the radwaste system that are in scope for 54.4(a)(1) are reviewed in aging management reports AMRM-07 and AMRM-20. The portion included for 54.4(a)(2) which is included due to the potential for spatial interaction is reviewed in AMRM-30. The Plumbing and Drains system has no intended functions for 10CFR54.4(a)(1) or (a)(3). The system has the following intended function for 10CFR54.4(a)(2). • Maintain integrity of nonsafety-related components such that no physical interaction with safety-related components could prevent satisfactory accomplishment of a safety function. The portion of the Plumbing and Drains system included for 54.4(a)(2) is reviewed in AMRM-30.	Meyer, Glenn	Ivy, Ted	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
538	How does Pilgrim treat crane and hoist boundaries for license renewal.	For the large cranes (e.g. Reactor Building & Turbine Building cranes), the crane rails and girders are the structural boundary for license renewal. That is, the crane rails and girders are included as part of the Structures Monitoring Program. For the smaller jib cranes, hoists or monorails, no distinction is made for structural boundaries. The entire jib crane, hoist and monorail is included as part of the Structures Monitoring Program.	Meyer, Glenn	Kalb, Jeff	Closed	No
539	Provide a copies of the the following documents: 1. The FAC 2005 self assessment. 2. The RFO #s 14 & 15 FAC summary reports. 3. The spreadsheet for RFO #15 UT results. 4. Sheets HE, HE-1, GE & GE-1 from Spec M-300.	Provided inspector with the following documents: 1. the FAC 2005 self assessment; 2. the RFO-14 & RFO-15 FAC summary reports; 3. the spreadsheet for RFO-15 UT results; and 4. sheets HE, HE-1, GE, & GE-1 from Specification M-300.	Johnson, Dante	Bechen, Gerry	Closed	No
540	On LRA drawing M-220 sheet 3 valve 31-CK-167 is shown as higlighted as in scope and subject to AMR but no other components on this drawing are. Why is this valve included and not the others.	Check valve 31-CK-167 is highlighted as being in scope and subject to aging management review because it is a primary containment penetration isolation valve for containment penetration X-22. The LRA drawing indicates that the penetration number is X-22.	Meyer, Glenn	Chan, Laris	Closed	No
541	1. Provide all drywell support drawings. 2. Provide fibroscope inspection documentation (1987) reference in LRA Amendment 2. 3. Is the drywell joint sealing compound inspected and what is the design life of the compound? (Pardee/G. Dyckman - design info) 4. Provide ALL UT datasheets for ALL drywell inspections. 5. Provide procedure for drywell shell to floor joint inspection.	1. Done. Provided requested drawings (L. Chan). 2. Done. LRA Amendment references the inspection conducted in January 1987. Provided copy of Memo NDE87-20/QAD87-129 containing copy of inspection IR87-50-1I-1 conducted in January 1987 (1/14 - 15/87); also provided copy of inspection IRS87-1819 conducted in November 1987 (11/21 & 11/23/87). Information obtained by D.Ellis. 3. Exterior drywell joint compound at sand cushion area is not routinely inspected due to access restrictions. 4. Done. Provided all IWE UT data of drywell shell, 1600 9/21 5. Done. Provided procedure ENN-NDE-10.03, PNPS 2.1.8.7 & Engineering Standard ENN-EP-S-001 1700 hrs 9/21	O'Hara, Tim	Pardee, Rich	Close Open - NRC Reviewing	No

Item	Request	Response	Inspector	Lead	Category	Update?
542	Provide copies of completed surveillances referenced in AMPER Section 4.13.2.B.4.b, Para 2: Fire suppression water system flush of distribution headers and fire hydrants at least once every 3 years and system functional and full flow tests at least once per operating cycle... (Ref. 8.B.8; 8.B.12; 8.B.15; and Section 10.8.4.2.2, PNPS UFSAR) Provide copies of completed procedures referenced in AMPER Section 4.13.1.B.4.b for Visual inspection and functional testing, at least once each operating cycle, of the cable spreading room Halon fire suppression system. (Ref. Attachments 1 and 4, 8.B.22 and Section 10.8.4.4.2, PNPS UFSAR)	Information provided	Lewis, Shani	Burke, Steve	Closed	No
543	Provide a sample of system health reports for the fire protection system.	Provided the requested reports to the inspector.	Lewis, Shani	Landry, Mathieu	Closed	No
544	Provide copies of MRs on grout repair and inspections of the torus wall.	Provided requested information to the inspector.	Chaudhary, Suresh	Kalb, Jeff	Closed	No
545	Provide CRs on torus anchor bolt corrosion.	Provided copies of the CRs on torus achor bolt corrosion and on water intrusion.	O'Hara, Tim	Kalb, Jeff	Closed	No
546	Provide details of the FW nozzle thermal sleeve and modification package for installation.	Provided a copy of FW drawing M1B-45-1 and partial copies of PDCR79-41 that installed the sparger modifications. Also provided MR80-4587 that documents installion of PDCR79-41.	Kaufman, Paul	Mogolesko, Fred	Closed	No
547	Instrument Air Quality Program Provide the following information. 1. Current revision of IA program procedure 2. SOER 88-01 3. ISA 7.3 standard 4. Trends of instrument air parameters sampled by the program 5. P&ID showing sample points 6. GE specification for air quality for HCUs, if any.	1. provided 2. provided 3. Provided ISA 7.0 which is the standard used 4. provided 5. provided 6. None identified	Richmond, John	Rydman, Dave	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
548	The inspector requested copies of the following items: 1. Copies of P&ID's that cover the components included in the service water system and SW integrity program. 2. Last six system health reports for SW. 3. Copies of the Thermal test procedures and the trend results for the last three tests on the RBCCW heat exchangers. 4. Copies of the last backwash and monthly operability tests for RBCCW Hx. 5. Copies of three condition reports the document the effectiveness of the service water integrity program. 6. Condition report summary on service water leaks for the last five years. 7. Copy of last inspection report or video of underwater inspection of the SW bays/Intake.	Provided the inspector with the requested documents: 1. Provided requested P&IDs 2. Provided reports 3. Copies of test procedures and trend results provided 4. Copies of tests provided 5. Copies of three condition reports provided 6. There have been no thru wall leaks on service water during the last five years. No information provided. 7. Provided copy of inspection report/video	O'Hara, Tim	Gaedtke, Joe	Closed	No
549	Do any ISI program relief requests affect components included in the service water integrity program?	None of the ISI relief requests impact components included in the service water integrity program.	O'Hara, Tim	Gaedtke, Joe	Closed	No
550	Provide a copy of NRC letter 1.84.148. (This is the NRC SER of BWR FW & CRD return line mods at Pilgrim).	Provided a copy of NRC letter 1.84.148 to the inspector.	Kaufman, Paul	Mogolesko, Fred	Closed	No
551	Provide basis for operability associated with CR 2006-03479. This CR is similar to CR-2006-1879. (Corrosion of torus anchor bolt baseplate assemblies)	Provided the basis for operability associated with CR 2006-03479 to the inspector.	O'Hara, Tim	Mogolesko, Fred	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
552	Heat Exchanger Monitoring Program Provide copy of LRA amendment showing changes in response to TLAA audit question (#503). Provide copy of associated audit questions involving TLAA for heat exchangers in the Heat Exchanger Monitoring Program. Provide list of heat exchangers in this program that rely on other AMPs for managing cracking.	Provided copy of Amendment 8 sections showing response to audit question 503. Provided copy of audit questions 503 and 506 with responses. Heat exchangers in this program that rely on other AMPs for managing cracking are the following. (Post-Amendment 8) RHR and RHR pump seal cooler heat exchangers (AMRM-02) E207A&B and E203A,B,C,D. Water Chemistry Control – BWR manages cracking due to SCC/IGA. One-Time Inspection manages cracking due to fatigue.	Richmond, John	Cox, Alan	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
553	LRPD-02, Section 4.17.B.3.a, quotes from NUREG-1801 stating, "For components that do not have regular oil changes, viscosity, neutralization number, and flash point are also determined to verify the oil is suitable for continued use. In addition, analytical ferrography and elemental analysis are performed to identify wear particles." The PNPS oil analysis program appears to be different from this statement in that a screening analysis is used to determine the need for analysis to determine some of these parameters. Please explain. Provide justification for differences from the NUREG-1801 program description if appropriate. First week's inspection debrief item.	PNPS uses a screening analysis of lubricating oil samples. The analysis is used to detect degraded lubricating oil or abnormal wear in lubricated machinery. It is used as a screening tool to identify the presence of moisture, abnormal wear products, and changes in oil chemistry associated with thermal degradation. Results of the screening analysis are evaluated by a predictive maintenance engineer, who compares them with prior results and determines if more detailed analysis is necessary. An off-site laboratory is contracted to perform the more detailed analysis. NUREG-1801 XI.M39, Lubricating Oil Analysis, Parameters Monitored/Inspected states, "For components with periodic oil changes in accordance with manufacturer's recommendations, a particle count and check for water are performed to detect evidence of abnormal wear rates, contamination by moisture, or excessive corrosion. For components that do not have regular oil changes, viscosity, neutralization number, and flash point are also determined to verify the oil is suitable for continued use. In addition, analytical ferrography and elemental analysis are performed to identify wear particles." Analytical ferrography and elemental analysis are diagnostic tools used to identify wear particles if the particle count is high. Therefore, for components that do not have regular oil changes NUREG-1801 recommends that the following parameters be monitored on a regular basis. 1. particle count 2. water content 3. viscosity 4. neutralization number 5. flash point As the screening tool identifies the presence of moisture, abnormal wear products, and changes in viscosity, the first three parameters are monitored on a regular basis at PNPS. If off-site analysis is necessary following the	Richmond, John	Cox, Alan	Open – NRC Reviewing	No

screening, the samples are analyzed for neutralization number and fuel dilution in addition to the other parameters. The PNPS program is not strictly consistent with NUREG-1801 because neutralization number and flash point (or fuel dilution See Note 1) are not monitored for every oil sample. This inconsistency is justified because the parameters monitored regularly (presence of moisture, abnormal wear products, and changes in viscosity) are those directly related to age-related degradation of components containing lube oil. As noted in the Mechanical Tools , aging effects are not observed in fuel oil and lubricating oil systems unless moisture or other contaminants are present. Therefore, continuous monitoring and trending of particle count, water content and viscosity in lubricating oil provides reasonable assurance that the effects of aging will be managed such that applicable components will continue to perform their intended function consistent with the current licensing basis for the period of extended operation.

(Note 1. As indicated in LRA Amendment 5, PNPS measures the % fuel dilution in diesel engine oils which is a more acurate method than flash point for identifying fuel leaks and oil dilution.)

This requires an amendment to the LRA.

LRA Section B.1.22 is amended as follows (underlined words added, strike-outs deleted)

NUREG-1801 Consistency

The Oil Analysis Program at PNPS is consistent with the program described in NUREG-1801, Section XI.M39, Lubricating Oil Analysis, with exceptions and enhancements.

Exceptions to NUREG-1801

The Oil Analysis Program at PNPS is consistent with the program described in NUREG-1801, Section XI.M39, Lubricating Oil Analysis with the following exceptions.

Attributes Affected - Exception
3. Parameters Monitored/Inspected - Flash point is not determined for sampled oil (See Note 1).
3. Parameters Monitored/Inspected - Neutralization number and fuel dilution are not monitored for every oil sample. (See Note 2)

(Note 2: Non Class I mechanical Implementation Guideline and Mechanical Tools, Revision 4, EPRI 1010639,January 2006, Appendix C, "Oil and Fuel Oil")

1. Analyses of filter residue or particle count, viscosity, total acid/base (neutralization number), water content, and metals content provide sufficient information to verify the oil is suitable for continued use.

2. The parameters monitored regularly (presence of moisture, abnormal wear products, and changes in viscosity) are those directly related to age-related degradation of components containing lube oil. As noted in the Mechanical Tools, aging effects are not observed in fuel oil and lubricating oil systems unless moisture or other contaminants are present. Therefore, continuous monitoring and trending of particle count, water content and viscosity in lubricating oil provides reasonable assurance that effects of aging will be managed such that applicable components will continue to perform their intended function consistent with the current licensing basis for the period of extended operation.

Enhancements

The following enhancements will be initiated prior to the period of extended operation.

Attributes Affected□Enhancements
1. Scope of Program
The Oil Analysis Program will be enhanced to periodically change CRD pump lubricating oil. A particle count and check for water will be performed on the drained oil to detect evidence of abnormal wear rates,

Item	Request	Response	Inspector	Lead	Category	Update?
		contamination by moisture, or excessive corrosion. 3. Parameters Monitored/Inspected Procedures for security diesel and reactor water cleanup pump oil changes will be enhanced to obtain oil samples from the drained oil. Procedures for lubricating oil analysis will be enhanced to specify that a particle count and check for water are performed on oil samples from the fire water pump diesel, security diesel, and reactor water cleanup pumps. 6. Acceptance Criteria The Oil Analysis Program will be enhanced to proceduralize the acceptance criteria and corrective actions described in this program description. Item #589 includes the commitment to perform periodic sampling of the parameters per LRPD-02, Section 4.17.B.3.a. Close this item to #589.				
554	In response to license renewal audit question # 213, PNPS stated that percent fuel dilution is determined in lieu of flashpoint. Please provide documents that direct completion of the percent fuel dilution determination.	The fuel dilution test for diesel fuel oil is performed on Pilgrim Diesel Engines X-107A B, and X-166 in accordance with the original contract agreement with the lube oil analysis lab. The flash point is also analyzed however, the fuel dilution test is a better test and it is used when preventive maintenance engineer reviews test results. On site lube oil screening and laboratory results are compared to the acceptance criteria guidelines provided on the engineering equipment reliability used oil analysis web page. The acceptance criteria for diesel lube oil testing were derived from the ALCO Owners Group recommendations and EPRI predictive maintenance templates for diesel lube oil analysis.	Richmond, John	Carrol, W	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
555	Provide a list of components from AMRM-30 that credit the Oil Analysis Program.	As shown in LRA Table 3.3.2-14-35, "Turbine Generator and Auxiliary System Nonsafety-Related Components Affecting Safety-Related Systems Summary of Aging Management Evaluation," the following components credit the Oil Analysis Program for aging management. None of the other (a)(2) tables credit the Oil Analysis Program. For each item in the following list, the environment is lube oil and the aging effect is loss of material. Component Type Material Filter housing Carbon steel Heat exchanger (shell) Stainless steel Heater housing Carbon steel Orifice Carbon steel Orifice Stainless steel Piping Carbon steel Pump casing Carbon steel Sight glass Carbon steel Sight glass Copper alloy >15% Zn Strainer housing Stainless steel Tank Carbon steel Thermowell Carbon steel Thermowell Stainless steel Tubing Copper alloy <15% Zn Tubing Stainless steel Valve body Carbon steel Valve body Stainless steel AMRM-30, Aging Management Review of Nonsafety-related Systems and Components Affecting Safety-related Systems," indicates that the oil-filled components in this system include those in the turbine generator oil system and the reactor recirculation pump MG set oil system. (Reference P&IDs M210, M221 sheets 1 and 2, M226 sheet 2, M271, M274, and M275.) Attachment 3 of Procedure 3.M.4-17.4, "Lubrication Sampling and Change Procedure," shows that turbine generator oil is sampled at the bearings, the clean oil storage tank, the dirty oil storage tank, and the oil conditioner. Attachment 3 of Procedure 3.M.4-17.4, "Lubrication Sampling and Change Procedure," also shows that MG sets are	Richmond, John	Cox, Alan	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
		sampled at the oil coolers.				
556	Provide procedures that accomplish lube oil sampling and analysis for the following. a. RBCCW b. Diesel fire pump c. Security diesel	a. RBCCW The RBCCW pumps P-202A-F have a yearly lube change with no sample. PNPS plans to add sample requirement for consistency with other ENN plants. b. Diesel fire pump The diesel fire pump PM procedure 3.M.4-123 takes oil samples for analysis once per every two years per the PM procedure c. Security diesel The security diesel PM procedure 3.M.3-23.1 changes the oil on a 2year frequency however an oil sample for analysis is not required Copies of referenced procedures were provided to inspector.	Richmond, John	Carrol, W	Closed	No
557	1. Provide qualification test prodedure to qualify underwater coatings used in the torus for coating repair. 2. Provide the frequency for re-inspecting the coating repaired areas in the torus 3. Provide the most recent torus dive inspection tapes (2003) for the inspector. 4. Has any testing been performed to demonstrate hat torus coating repairs arrest further corrosion underneath the repaird area.	1. Provided qual test procedure and summary of test results for torus coatings to the inspector. 2. Information was provided to inspector. 3. VHS tapes of the 2003 torus dive inspections were provided to the inspector. 4. No, there have been no tests.	O'Hara, Tim	Rydman, Dave	Closed	No
558	Provide copies of CR for the radiator housing of the SBO diesel and on the roof leak for the SBO enclosure.	provided	Meyer, Glenn	Collis, Tom	Closed	No
559	While touring the Aux Bay "B", the inspector observed a security guard opening the watertight door and leaving it open. The inspector was informed that there was a CR previously written addressing this. The inspector requested a copy of the CR	CR-PNP-2004-01107 addressing a similar incident for the watertight door (for a longer period of time) was provided to the inspector. The CR addresses leaving the door open temporarily.	O'Hara, Tim	Chan, Laris	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
560	Provide copies of drawings showing underground piping for the systems included in the Buried Piping and Tanks Inspection Program.	Copies of drawings showing underground piping for systems in the Buried Piping and Tank Inspection Program were provided to the inspector.	O'Hara, Tim	Bechen, Gerry	Closed	No
561	Perform a CR search covering the past 5 years on leaking underground pipe and tanks.	CR search performed and the resulting CR search result list was provided to the inspector.	O'Hara, Tim	Mogolesko, Fred	Closed	No
563	Provide copies of recent system health reports for system 56 (structures).	Provided copies of recent system health reports for system 56 to the inspector.	Chaudhary, Suresh	Kalb, Jeff	Closed	No
564	Provide copies of recent maintenance rule walkdown reports for system 56 (structures).	Provided copies of recent maintenance rule walkdown reports for system 56 to the inspector.	Chaudhary, Suresh	Kalb, Jeff	Closed	No
565	The fire pump diesel day tank is not included in the scope of the diesel fuel monitoring program. The inspector requested the basis for not including this tank since the fuel oil in the tank may not be representative of the EDG storage tanks due to lack of fuel oil turnover. Is the amount of fuel used in this tank during fire pump diesel testing adequate to ensure the fuel oil is representative of that contained in the EDG storage tanks such that additional monitoring is not required. First week's inspection debrief item.	Sampling of the contents of the fire pump diesel day tank was not included in the diesel fuel monitoring program because the program ensures the quality of the oil being supplied to the tank (from the EDG storage tanks). However, the fuel oil in the EDG storage tanks may not be representative of the oil in the fire pump diesel day tank. Therefore, to ensure that significant loss of material is not occurring, the Diesel Fuel Monitoring Program will be enhanced to include periodic ultrasonic thickness measurement of the bottom surface of the fire pump diesel day tank. The first ultrasonic inspection of the bottom surface of the fire pump diesel day tank will occur prior to the period of extended operation, following engineering analysis to determine acceptance criteria and test locations. Subsequent test intervals will be determined based on the results of the first inspection. This requires a change to the LRA. LRA Commitment 38.	Richmond, John	Burke, Steve	Closed	Yes

Item	Request	Response	Inspector	Lead	Category	Update?
566	The enhancement to sample the securtiy diesel fuel oil storage tank only requires a sample for water content? What is the basis for only sampling for water and should any other parameters be included?	The enhancement to sample the security diesel fuel oil storage tank should provide the same level of monitoring for this tank as that provided for the other storage tanks to ensure the quality of the oil and preclude aging effects. Therefore, the enhancement is revised to state the following. The Diesel Fuel Monitoring Program will be enhanced to include quarterly sampling of the security diesel generator fuel storage tank. Particulates (filterable solids), water and sediment checks will be performed on the samples. Filterable solids acceptance criterion will be = 10mg/l. Water and sediment acceptance criterion will be = 0.05%. This requires a change to the LRA.	Richmond, John	Potts, Lori	Closed	Yes
567	Provide copies of the ASTM analysis standards used for analyzing fuel oil in the EDG and SBO storage tanks.	Provided.	Richmond, John	Smalley, Paul	Closed	No
568	Provide copies of fuel oil data trends for water & sediment, Cetane, and particulates for the past two years.	Provided.	Richmond, John	Smalley, Paul	Closed	No
569	The buried piping and tanks inspection program in section 4.b contains a statement that "Prior to entering the period of extended operation , plant operating experience will be reviewed to verify that an inspection occurred within the past ten years". No explanation is provided as to what will be done if an inspection has not occurred prior to the period of extended operation. First week's inspection debrief item.	This statement was meant to indicate verification that an inspection occurred within the ten years prior to entering the period of extended operation. If an opportunistic inspection did not occur, a focused inspection would be performed prior to the period of extended operation. This point will be clarified by inserting the following after the third sentence of Section 3.1.B.4.b of LRPD-02. "If an inspection did not occur, a focused inspection will be performed prior to the period of extended operation."	O'Hara, Tim	Ivy, Ted	Closed	Yes
570	Provide copy of CR for sprinkler valve leak (valve 4-S-89) in RB.	A copy of the CR (#PNP-2006-03550) was provided to the inspector.	Lewis, Shani	Burke, Steve	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
571	The following questions are associated with joint sealing compounds (JSC) on drawing C-71. 1. Provide a copy of the JSC installation specification. 2. Provide information on service life of the JSC. 3. How is the integrity of the JSC inspected? First week's inspection debrief item.	Information provided.	O'Hara, Tim	Pardee, Rich	Open – NRC Reviewing	No
572	Provide copy of the Main Stack Inspection Report from 6/2004 (Ref 5.81, LRPD-05).	Provided copy of the Main Stack Inspection report dated 6/9/04.	Meyer, Glenn	Mogolesko, Fred	Closed	No
573	The inspector noted that the existing Pilgrim Structures Monitoring Procedure (NE 8.02) is not adequate relative to providing details for record keeping and trending of concrete cracks noted during walk downs of Pilgrim structures. First week's inspection debrief Item.	The inspector's comment is noted. Entergy N.E. is developing a fleet wide procedure for structures monitoring (ENN-DC-150). At the time of the inspection, this procedure was still in draft form undergoing final review by the N.E. plant sites. ENN-DC-150 has provisions which are much more detailed in the areas of walkdown documentation, record keeping and trending of results than what was in the Pilgrim procedure NE 8.02. When implenented later this year, or early next year, the procedure will greatly enhance the structures monitoring program at Pilgrim. A copy of this draft ENN procedure was provided to the NRC inspector.,	Chaudhary, Suresh	Kalb, Jeff	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
574	Provide the basis for concluding that water has not entered the sand pocket during past operation of PNPS given the following. 1. sealant condition unknown 2. drain line alarm test failure of 12/28/05	A series of four drains protects the drywell outer surface against leakage from the refueling cavity. 1. Refueling bellows leakage detection drain line - A flow switch (FS-4803) monitors for leakage through this 3" drain line. The flow alarm was found nonfunctioning in December 2005. The previous successful test of the alarm was in 2003. RFO 15 was in spring of 2005. Assuming the alarm was failed during RFO15, leakage, if any, would have been indicated at the ¾" tell-tale drains described in Item 2. 2. A ¾" tell-tale drain indicates leakage into each of four 8" casings that surround the 2" refueling bellows cavity drains. Blockage of the 3" drain line described in Item 1 allows leakage to enter the 8" casing where it would be indicated by leakage from the ¾" tell-tale drain at a funnel on Elevation 74'. These drains exist at four locations. During daily tours, operators have never detected leakage from these tell-tale drains. 3. Top of sand pocket drain. If leakage is not detected from the ¾" tell-tale drains before the four 8" casings fill up and water rises above the ¼" thick form plate that surrounds the ledge, leakage can overflow into the air gap. A sheet metal plate shields the top of the sand pocket against leakage from above. A series of four 4" drain lines direct water from the top of the sheet metal plate to the torus room floor at Elevation -17'. Operators monitor for abnormal conditions during rounds. These drains are also checked by ISI VT-2 certified inspectors for leakage twice every refuel outage, once after flooding up and again prior to flooding down. No leakage has ever been detected from these drains at PNPS. 4. Sand pocket drains. Drains at the bottom of the sand pocket remove leakage, if any, that enters the sand pocket. Because the drain lines are filled with sand at the sand pocket, visual verification that the lines were unobstructed could not be done. With no past indications of leakage, corrosive conditions that could lead to drain line obstruction are not	O'Hara, Tim	Dyckman, Gary	Open – NRC Reviewing	No

Item	Request	Response	Inspector	Lead	Category	Update?
		expected to have existed. In addition, the drains are 2" lines which are large enough to make blockage due to corrosion unlikely. CR-PNP-2006-3677 written to improve the monitoring for corression.				
575	In the nonsafety attached to safety review of AMRM-30 Attachment 4 for the compressed air system A4.1 states that the components include bolting, piping, tubing and valves. On LRA drawing LRA-M-220 sheet 2 at G- 7 there is a nonsafety line connected to safety related piping that connects to an air dryer and compressor. The air dryer and compressor are not listed as being in scope for nonsafety attached to safety. Since a bounding approach was used should the dryer and compressor have been included?	The approach used for scoping and screening of components for 54.4(a)(2) for nonsafety-related SSCs directly connected to safety-related SSCs is a two pronged approach as described in the PNPS LRA sections 2.1.1.2.2. The first is to identify those nonsafety-related components within the structural boundary that are required to provide structural support to the safety-related pressure boundary. The second approach is to use the bounding approach from NEI 95-10 Appendix F if the structural boundary cannot be identified. At PNPS the structural boundary is quite often indicated on Piping and Instrument drawings thru the use of seismic class 1 boundary flags. These flags indicate the end of the seismic class 1 evaluation such that components downstream are not required to provide structural support. If these flags were not provided then the bounding approach was used to ensure the first seismic anchor was included. On LRA drawing LRA-M-220 sheet 2 at G- 7 there is a seismic class 1 boundary flag at valve 31-HO-507 that indicates that the components downstream of this flag are not required to provide structural support. This would include the air dryer and compressor. Therefore these components are not included in the table 3.1.2 of AMRM-30 or LRA table 3.3.2-14-2. CLOSED TO ITEM # 586.	Meyer, Glenn	Ivy, Ted	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
576	In AMRM-30 attachment 4 section A4.1 for the RBCCW system it states that although the majority of the system is already included in AMRM-12, the piping that interfaces with the seismic piping near the chemical addition tanks requires aging management review per 54.4(a)(2) for structural support of safety-related components. On drawing LRA drawing LRA-M-215 sheet 2 there are many vent and drain lines off of components in the RBCCW system. Are these components in scope and subject to aging management review for nonsafety attached to safety and if so where are they included.	The vent and drain piping shown on LRA-M-215 sheet 2 were included as part of the Radioactive waste system (20) since all of these lines terminate at Radioactive waste drains. When performing the aging management review, these lines were conservatively assumed to contain fluid such that they were included for potential spatial interaction due to spray or leakage. As a result they did not need to be included as part of the nonsafety attached to safety review in Attachment 4 of AMRM-30. However, this was not clearly described in section 3.1.26 of AMRM-30 and will require a revision to the following sentence in section 3.1.26 with the revision shown in bold. The liquid filled nonsafety-related components in the system (which conservatively includes vent and drain lines that periodically contain fluid) whose failure could affect safety-related equipment requires aging management review per 54.4(a)(2) due to potential spatial interaction. These vent and drain lines are included in the PNPS LRA in Table 3.3.2-14-23 as carbon steel and stainless steel piping with an internal environment of untreated water due to the potential for exposure to radwaste drainage. The aging effects will be managed by the Periodic Surveillance and Preventive Maintenance program and the One Time Inspection program. Therefore a change to the LRA is not required. CLOSED TO ITEM # 586.	Meyer, Glenn	Ivy, Ted	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
577	Please provide the following information: 1. A current copy of the PNPS commitment list showing the enhancement to the system walkdown program. 2. Copies of a sample of condition reports documenting operating experience with the system walkdown program and the identification of aging effects. 3. Provide an explanation of the terms category A and B as shown in EN-DC-178.	1. A copy of the current Pilgrim license renewal commitment list was provided to the inspector. 2. Copies of 4 sample condition reports documenting OE with the system walkdown program and the identification of aging effects were provided to the inspector. 3. Provided applicable pages out of procedures EN-DC-178 and EN-DC-143 which explains category 1 & 2. The terms category 1 & 2 replaced the terms category A & B.	Johnson, Dante	Ivy, Ted	Closed	No
578	Provide 2 separate copies of procedure 8.M.1-3 completed surveillance.	Provided 2 separate copies of the surveillances completed under 8.M.1-3.	Lewis, Shani	Das, Swapan	Closed	No
579	Provide copies of repetitive task and last 2 MRs related to man hole inspections. Also provide one MR for an upcoming inspection.	Providedc a copy of Rep Task #P002065. Provided copies of 2 MRs from past inspections and one for an upcoming inspection.	Lewis, Shani	Das, Swapan	Closed	No
580	1. Provide system walk down plan for RCIC. 2. Provide system monitoring plan for HPCI.	1. The system walkdown plan for RCIC was provided ot the inspector. 2. The system monitoring plan for HPCI was provided ot the inspector.	Johnson, Dante	Sullivan, Brian	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
581	Describe how the main stack foundation is included in the SMP.	This area is considered innaccessible under *Maintenance Rule criteria* and is not included in periodic maintenance rule structural inspections because of the difficulties of gaining access to the area. PNPS will perform a one-time inspection of the main stack foundation prior to the period of extended operation. This requires a revision to the aging management program evaluation report (AMPER), LRPD-02. This requires an amendment to the LRA. This is commitment #39 Commitment #39: Include main stack foundation in the One-Time Inspection Program. Implementation Schedule: June 8, 2012 Source: Letter 2.06.XXX Related LRA Section No. Comments: B.1.23/Item 581	Chaudhary, Suresh	Kalb, Jeff	Closed	Yes
582	The inspector requested copies of 25 selected CRs on buried piping and tanks.	Copies of the 25 selected CRs were provided to the inspector.	O'Hara, Tim	Bechen, Gerry	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
583	LPRD-02 in the one time inspection section does not list AMRM-02 (RHR) or AMRM-12 (RBCCW) yet the table the RBCCW heat exchanger is listed. Additionally, in AMRM-12 there are additional heat exchangers in scope (e.g., RWCU regen and recirc pump seal cooler) that are not listed in AMRM-30 which is referenced in LPRD-02.	In Attachment 2 of LRPD-02, scope (Attribute 1) of the one-time inspection activity for LRPD-06, Time-Limited Aging Analyses – Mechanical Fatigue will be corrected as follows (bold words added, strike-outs deleted)by adding RHR seal cooler heat exchangers (tubes) and recirculation pump seal water coolers (tubes). The entry for RBCCW heat exchanger will be removed since this heat exchanger operates at temperatures below the threshold for fatigue.. Non-piping components without metal fatigue analysis. • RHR heat exchangers (shell and tubes) • RHR seal cooler heat exchangers (tubes) • RHR pump casings • HPCI turbine casing • RCIC turbine casing • RBCCW heat exchanger Recirculation pump seal water coolers (tubes) • Heat exchanger shells, pump casings, tanks, and turbine casings susceptible to fatigue cracking, listed in AMRM-30, Nonsafety-related Systems and Components Affecting Safety-related Systems. The other heat exchangers in AMRM-12, "Aging Management Review of the Reactor Building Closed Cooling Water System," are not subject to cracking due to thermal fatigue since their temperature remains low. The list of aging management review reports crediting the One-Time Inspection Program in LRPD-02 Section 3.7.A will also be corrected as follows (bold words added). by adding the following to the list. This program is credited in the following. • AMRM-02, Residual Heat Removal System • AMRM-05, High Pressure Coolant Injection System • AMRM-06, Reactor Core Isolation Cooling System • AMRM-12, Reactor Building Closed Cooling Water System The table in the program description of LRA	Richmond, John	Cox, Alan	Open – NRC Reviewing	Yes

Item	Request	Response	Inspector	Lead	Category	Update?
		Section B.1.23 will be revised to add a line for verifying the absence of cracking for miscellaneous items not covered by a fatigue TLAA. The first column will read, "Inspection for mechanical fatigue". The second column will read, "One-time inspection activity will confirm that cracking due to fatigue is not occurring or is so insignificant that an aging management program is not warranted." This change requires an amendment to the LRA. • AMRM-07, Standby Gas Treatment System • AMRM-27, Condensate Storage • AMRM-30, Nonsafety-related Systems and Components Affecting Safety-related Systems • AMRM-33, Reactor Coolant System Pressure Boundary				

Item	Request	Response	Inspector	Lead	Category	Update?
584	What is the manufacturer's recommended service life for coating and wrapping that has been applied to buried piping in accordance with PNPS Specification M306?	For Field Coating, Tapecoat Co. "TC Cold Prime" and "CT Tape Coat" were applied. The Tapecoat Company was contacted. "Conversations with Katie Simon (847-866-8500) yielded the following: TC Cold Prime" was discontinued quite a while ago. In general, the Tapecoat products used are not expected to become degraded over time when properly applied. From Tapecoat Company Information: Tapecoat ® CT - Cold Applied Tape Coating□TAPECOAT CT - a 35 mil cold-applied tape coating with a 7 mil polyethylene film backing and 28 mils of adhesive, for ambient temperature below grade application. Appropriate for coating small to moderate size pipe with a single layer; a 50% overlap may be preferred when coating larger diameter pipe. Buried Pipe Coating Warranties The coating product alone does not establish the expected service life of a protective coating system. Additional factors such as surface cleanliness, surface preparation, and severity of service (soil conditions) also play a large roll in expected service life. Since the manufacturer does not control applications he does not predict expected service life	O'Hara, Tim	Bechen, Gerry	Open – NRC Reviewing	No

Item	Request	Response	Inspector	Lead	Category	Update?
585	New torus questions: 1. Provide basis for the repair criteria of 30 mils . 2. What is torus minimum wall thickness? 3. What is manufacturer's recommended service life for the torus coating? 4. What is torus coating material? 5. What are the coating degradation mechanisms (root cause of pitting)? 6. How often is the torus coating inspected? 7. How much degradation of the coating was recorded from RFO12 to RFO14? 8. What is the criteria for re-inspection of repaired pits? 9. What is the pit gauge pin diameter? 10. Provide back-up for PDCR 99.1145 inoperable designation for torus. 11. Does Pilgrim have any non-repaired torus wetted wall test areas? 12. What is deepest pit found to date? 13. What are the total number of pits found to date? 14. When was torus re-coated? 15. Provide a copy of calculation M-899. 16. Provide a copy of CB&I original design calc for the drywell (contract #9-8014, 1968).	1. 2. The min wall thickness for the torus is found on page 83 of 86 of calc M-899 and ranges by node number. A copy of calc M-899 was provided to the inspector. See response to question 15 below. 3. Review of Manufacturer's Product Data Sheets A review of the product data sheet for CZ-11 does not provide any guidance on the manufacturers expected service life. The coating product alone does not establish the expected service life of a protective coating system. Additional factors such as surface cleanliness, surface preparation, and severity of service also play a large roll in expected service life and since the manufacturer does not control applications he does not predict expected service life. Coating Warranties Coating systems may be warranted by the application contractors for a length of service which is generally less than the expected length of service for the level of controls applied during the coating application. The coating system expected service life for a case where inspections and repairs are not pursued after initial installation will be much shorter than the case where follow-up inspections and repairs are employed. 4. Pilgrim Torus Interior Coating The date of application of the existing coating is approximately 1981. Carbo Zinc 11, as manufactured by Carboline, is a self- curing inorganic zinc primer. The coating acts to sacrificially protect the submerged surfaces on the interior of the Torus, should the coating become breached. Pilgrim applies an inspection and repair program to the Torus interior coating. The inspection program monitors the condition of the protective coating. With the inspection and repair of failed local areas of Torus coating the expected service life of the coating is not currently limited to a specific time value	O'Hara, Tim	Mogolesko, Fred	Open – Plant Action	No

but, by virtue of the ability of inorganic zinc to form a passive oxide layer, could reasonably be expected to last 30 to 60 years.

Corrosion defects of limited depth (pits) may be directly repaired in accordance with a qualified underwater repair system. If the corrosion defects exceed a pre set value they require evaluation under the Corrective Action Process as well as repair. The corrective action process will determine the appropriate evaluation and resolution of conditions that exceed limited depth conditions.

Application of an inspection and repair program assures that the Torus will be maintained in accordance with the design requirements and perform acceptably in service.

5. Coating Description:
The immersed coating, in the Torus, is Carbo-zinc 11, a sacrificial coating, manufactured by Carboline. The dry film coating is comprised of 86% zinc, in the form of flakes, held together by a resin binder, which orient themselves parallel to the steel surface. In immersion service, a zinc salt (zinc oxide) layer forms on the wetted surface of the coating, which is a very tenacious protective barrier, and seals the wetted surface. A properly applied coating over a properly prepared steel substrate, will last a long time in immersion service. Failure of the coating to protect the steel occurs when the zinc pigments no longer maintain an electrolytic coupling to the steel, or are depleted. The fact that the water in the torus is de-ionized means that it is less chemically aggressive toward the zinc, and improves the longevity of the coating.
Coating Degradation Mechanisms:
When the zinc salt layer is subjected to mechanical damage, the outer layer of zinc depletes away and the next lower layer forms a new protective barrier of the zinc salt.
Opportunities for corrosion to form include:
• Mechanical damage, which exposes the underlying steel substrate to oxygen in the water.
• Improper surface preparation, such as failure

to completely remove any existing oxidation or prior coatings, before the new coating application.
• Improper maintenance of the prepared surface, which allows oxidation to form prior to coating.
• Improper coating application, which results in pinhole-size voids in the coating, through which water and oxygen can make contact with the steel.
INFORMATION ON TORUS COATING
The as-found condition of the torus shell as of RFO-12 and RFO-14 contained the following types, and surface areas, of degradation:

DEGRADATION MECHANISM - RFO 12
DEGRADED SURFACE AREA - RFO 14
DEGRADED SURFACE AREA
Localized Corrosion and Mechanical Damage - 164 sq. ft/4228 Locations -□159 sq. ft
6438 Locations

Tiger Striping - 386 sq. ft - 391 sq. ft

Coating Rust Through - 407 Locations - 482 Locations
Total as-found corrosion area - 550 sq. ft. - 550 sq. ft.
Repaired corrosion area - 41.75 sq. ft. - 56.74 sq. ft.

This data shows that the as-found degraded surface area during RFO 12 was about the same as the as-found degraded surface area during RFO 14. One notable observation is that the number of locations, where degradation was found, increased by approximately 50%.

At the beginning of RFO 12, the average Dry Film Thickness (DFT) of the coating was approximately 7.0 mils (min/ max 3.1 / 15 mils). RFO 14 data indicates an unappreciable reduction in DFT.

The threshold for coating repairs is any pitting corrosion identified, in the base metal of the vessel that exceed 32 mils in depth. During RFO 12, after desludging, 110 pits were found

that exceeded 32 mils. During RFO 12, 840 repairs were made. The repairs were made to the pits that exceeded 32 mils and where areas of rust through of the inorganic zinc coating were identified directly adjacent to underwater epoxy repairs applied during previous outages. Because surplus time was available after the required repairs were completed, additional repairs were made, to other corroded areas where the pits did not exceed 32 mils in depth. This resulted in a total coating repair of 41.75 square feet.

During RFO 14, after desludging, 63 pits were found that exceeded 32 mils. This reduction in identified pitting was attributed to the extra repairs made during RFO 12. During RFO 14, 504 repairs were made. This resulted in a total coating repair of 56.74 square feet. This time, the repairs were confined only to pits that exceeded 32 mils and where areas of rust through of the inorganic zinc coating was identified directly adjacent to underwater epoxy repairs applied during previous outages. There was no surplus time to make additional repairs during RFO 14.

6. The torus coating is 100% inspected every 2nd refueling outage. The coating was last inspected durnig RFO14.

7. See response to subpart question 5 above.

8. See response to subpart question 6 above.

9. The gage used is a Starrett Model No. 643 dial depth indicator gage.
This gage has a knife-edge base and a needle point contact which has been hardened and ground. The knife-edge base has a cutout so that the conical point can be precisely positioned for close work. Point is 1/2" (12.7 mm) long with a 40° included angle.

In action, the inspector gently pushes the point down to read zero with the base and then pushes down to make the needle point contact the workpiece to take the measurement. Gage features a Starrett No. 25-131 AGD Dial Indicator.

Item	Request	Response	Inspector	Lead	Category	Update?
		A copy of the page from the gage vendor manual containing the above description and showing an exploded view of the gage was provided to the inspector. 10. Requested information was provided to the inspector. 11. 12. 13. 14. The torus was re-coated around 1981. 15. A copy of CB&I Calc M-899 was provided to the inspector. 16. A copy of the original design calculation for the drywell was provided to the inspector.				

Item	Request	Response	Inspector	Lead	Category	Update?
586	During the review of components included the aging management review report AMRM-30 Aging Management Review of Nonsafety-related Systems and Components Affecting Safety-related Systems it appears that Attachment 4 does not provide sufficient detail and guidance to determine the actual components that need to be included in the assigned aging management programs. How will the site be able implement the programs needed to manage the components aging effects with the current guidance provided in AMRM-30?	Attachment 4 to AMRM-30 identifies the component types that are subject to aging management review and the drawings that include these component types. It does not list the specific components or sufficiently explain the criteria used to determine which components were included for the nonsafety attached to safety review. This information is needed to ensure that the aging management programs for these components can be implemented. In order to provide sufficient detail to accomplish aging management program implementation, AMRM-30 will be revised to either • provide a description of the nonsafety-related components subject to aging management review in the systems reviewed in Attachment 4 or • provide a description of the specific criteria used to determine the components subject to aging management review in Attachment 4 that would allow independent determination of the appropriate components to include in the applicable aging management programs . Confirmation of the screening results included in Attachment 4 to AMRM-30 will also be performed as part of this effort using the appropriate criteria. Additionally the change to AMRM-30 in item 576 needs to be performed.	Meyer, Glenn	Ivy, Ted	Closed	Yes
587	The NRC inspector discovered a typographical error in the Pilgrim elevtrical screening and aging management report (AMRE-01). (A reference was made to J.A. FitzPatrick, rather than Pilgrim).	CR PNP-2006-03683 was written. A review was performed that determined the error has no effect on the intent of AMRE-01. In addition, the license renewal application has been verified to not contain the same error.	Lewis, Shani	Cox, Alan	Closed	No
588	Provide lists of cranes in scope of license renewal. AMRC-04 refers to lists in procedures 3.M.1-14 and 3.M.7-5.	Provided Attachment 2 of Procedure 3.M.1-14 and Attachment 7 of Procedure 3.M.7-5.	Meyer, Glenn	Cox, Alan	Closed	No

Item	Request	Response	Inspector	Lead	Category	Update?
589	The PNPS Oil Analysis Program is not defined in controlled documents. In addition, periodic sampling is not performed for all of the parameters identified under the Parameters Monitored/Inspected attribute of NUREG-1801, Section XI.M39, Lubricating Oil Analysis.	Prior to the period of extended operation, the PNPS Oil Analysis Program will be enhanced by documenting program elements 1 through 7 in controlled documents. The program elements will include enhancements identified in the PNPS license renewal application and subsequent amendments to the application. The program will include periodic sampling for the parameters specified under the Parameters Monitored/Inspected attribute of NUREG-1801, Section XI.M39, Lubricating Oil Analysis. The controlled documents will specify appropriate acceptance criteria and corrective actions in the event acceptance criteria are not met. The basis for acceptance criteria will be defined. This requires an amendment to the LRA and will be a new commitment to enhance the PNPS program.	Richmond, John	Cox, Alan	Closed	Yes

LR REQUEST

LR # 569 ***NRC Inspector*** O'Hara, Tim

LR Text The buried piping and tanks inspection program in section 4.b contains a statement that "Prior to entering the period of extended operation , plant operating experience will be reviewed to verify that an inspection occurred within the past ten years". No explanation is provided as to what will be done if an inspection has not occurred prior to the period of extended operation.

First week's inspection debrief item.

LR Response This statement was meant to indicate verification that an inspection occurred within the ten years prior to entering the period of extended operation. If an opportunistic inspection did not occur, a focused inspection would be performed prior to the period of extended operation. This point will be clarified by inserting the following after the third sentence of Section 3.1.B.4.b of LRPD-02.

"If an inspection did not occur, a focused inspection will be performed prior to the period of extended operation."

Lead 17

Support Cox, Alan

Category Open – NRC Reviewing

LR REQUEST

LR # 536 ***NRC Inspector*** O'Hara, Tim

LR Text Provide the following ISI program documentation.

1. 2003 FW nozzle exam data -- RAP
2. PDC narrative for replaced FW spargers -- RAP
3. Copy of ISI Program – RAP (DCC)
4. Copy of Class 1 RISI Program – RAP (DCC)
5. All 4th interval ISI Program relief requests – RAP & W. LOBO (LIST OF RELIEF REQUEST APPROVAL STATUS)
6. Recirc system – how RISI inspection points were selected using risk-informed methodology -- RAP
7. 3 examples of how ISI program has detected aging management issues in lasts 10 years: -- RAP
   a. also how repairs were performed
8. CR search for any aging management issues, ISI or otherwise – RONN MILLER
9. Torus IWE exam datasheets -- RAP
10. Torus SG Pinney reports – RAP & DAVE RYDMAN
11. Torus recoating procedures (SG Pinney) – DAVE RYDMAN
12. Torus analysis evaluating pit depths relating them to end-of-life – G. MILERIS (REF. CALC M-899) – ordered from DCC
13. Drywell support and Rx. cavity seal arrangement drawings – RAP (SEE AMENDMENT 8 SUBMITTAL)
14. GL87-05 response (drywell corrosion issue) -- RAP
15. Torus vent system vent bowl repair data and procedures -- RAP
16. Last 2-3 surveillances done on Rx cavity flow switch FS-4803 (PNPS 8.E.19) -- RAP
17. Torus walkdown 2pm Tuesday 9/19/06 -- RAP & JEFF KALB
18. 3 examples of where ISI program has previously addressed aging on class I piping.

LR Response

1. Done. Copies of all most recent FW nozzle exam data provided 1550 hrs 9/21
2. Done. Information provided by G. Mileris
3. Done. Provided copy of ISI Program with latest DRN update.
4. Done. See #3 - Included in ISI Program
5. Done. Reliefs included in #3, ISI Program. Provided latest approval status of reliefs (by W. Lobo)
6. Done. Response for T. O'Hara provided to Fred M. 9-25-06.
7. See response to #18
8. Done. Provided list from R. Miller
9. Done. Copies provided all data 1550 hrs 9/21
10. Done. Provided most recent three SG Pinney reports (to be returned)
11. Done. Provided procedure (from D. Rydman)
12. Done. Provided Calc. M899
13. Done. Provided Amendments 1,2 & 8
14. Done. Provided response letter BECO 87-074 (from D. Ellis)
15. Done. Response for T. O'Hara provided to Fred M. 9-25-06.
16. Done. Provided completed surv. procedures from 2001, 2003 and 2006, with CR and MR related to 2006 surveillance testing.
17. Torus walk down was conducted on Tuesday @2:00 pm. Five CRs issued.
18. Done. Provided response for T. O'Hara to Fred M. 9-27-06. Additional Information requested on 10/06/2006. Additional information provided below:

Three examples believed best met the criteria were given to the NRC on Monday October 2, 2006

A review of every ISI and CR report for the last ten years was performed to find instances of ISI inspections identifying aging issues in Class I systems. Only three examples meeting these criteria were found and all three were given to the NRC on Monday 10/2/2006. The reports were:

1. CR-PNP-2005-01982- identified a ¾" crack and ¼" linear indication on lug fillet welds.
2. CR PNP-2005-01839 identified a loose nut.
3. PR99.1296-wear observed on pipe OD where it rubs on a support.

The ISI engineer noted that the susceptible 304 SS Class I system piping was replaced in 1985, and most of the Class I systems are SS. As a consequence, the ISI program identifies few if any aging problems in Class I piping. ISI is a proven and industry accepted method for identifying aging effects in Class I piping systems.

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Support Woods, Steve

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