(FAX - PA - LR)

********** -COMM. JOURNAL- ********** DATE AUG-02-2006 ***** TIME 10:57 ********

MODE = MEMORY TRANSMISSION START=AUG-02 10:55 END=AUG-02 10:57

FILE NO.=597

STN NO.	COMM.	ONE-TOUCH/ ABBR NO.	STATION NAME/TEL NO.	PAGES	DURATION
001	OK	#	915088308855	011/011	00:02:17

********** - ***** - *********

NRC FORM 366 (3-2005) U.S. NUCLEAR REGULATORY COMMISSION

TELECOPIER TRANSMITTAL

DATE: 08/02/2006

TIME:

TO

NAME	TELEPHONE
Brian Ford/Fred Mogolesko	508-830-8403

NAME AND LOCATION OF COMPANY *(If other than NRC)*

PNPS

Plymouth, MA

TELECOPY NUMBER	VERIFICATION NUMBER
508-830-8855	

FROM

NAME	TELEPHONE	MAIL STOP
Ram Subbaratnam	301-415-1478	O-11F1

TELECOPY DATA

NUMBER OF PAGES: THIS PAGE + 10 PAGES = 11 TOTAL

PRIORITY: ☑ IMMEDIATE ☐ OTHER (Specify)

SPECIAL INSTRUCTIONS

Fred/Bryan:

Following up here is the request from audit group that need fixing and updating the Supplement #3. Please update and give us a firm date when we can expect a correspondence on docket that completes remainder of lingering issues.

Thanks

Ram.

NRC FORM 366 (3-2005) PRINTED ON RECYCLED PAPER

NRC FORM 386 (3-2005)

U.S. NUCLEAR REGULATORY COMMISSION

TELECOPIER TRANSMITTAL

DATE: 08/02/2006

TIME:

TO

NAME	TELEPHONE
Brian Ford/Fred Mogolesko	508-830-8403

NAME AND LOCATION OF COMPANY *(If other than NRC)*

PNPS

Plymouth, MA

TELECOPY NUMBER	VERIFICATION NUMBER
508-830-8855	

FROM

NAME	TELEPHONE	MAIL STOP
Ram Subbaratnam	301-415-1478	O-11F1

TELECOPY DATA

NUMBER OF PAGES

THIS PAGE + 10 PAGES = 11 TOTAL

PRIORITY

- [x] IMMEDIATE
- [ ] OTHER (Specify)

SPECIAL INSTRUCTIONS

Fred/Bryan:

Following up here is the request from audit group that need fixing and updating the Supplement #3. Please update and give us a firm date when we can expect a correspondence on docket that completes remainder of lingering issues.

Thanks

Ram.

NRC Audit Team Tracking Form for Metal Fatigue TLAA Review

Audit Team Question #	Brief Description of the Issue Raised in Audit Team Question	Date Q&A Database Response	Brief Description of the Applicant's Response to the Audit Team Question	Status:	Basis for Status:
503 (Medoff)	TLAA - AMR reconciliation question for Class 1 components designed to Section III requirements	Q&A response: To be received (TBR) LRA Amend: TBR	The project team has only received a draft response at this point. Draft joint (consolidated) response to Questions 503, 504, 505, and 506 will require amendment of the Fatigue AMRs in LRA Tables 3.1.2-1, 3.1.2-2, and 3.1.2-3.	☐ Open ■ Accepted ☐ Closed ■ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	Draft Joint Response has been accepted but not docketed in Q&A database. Awaiting LRA amendments of applicable AMR line items Need to eliminate first paragraph of Draft resp.
504 (Medoff)	TLAA - AMR reconciliation question for Class 1 components designed to B31.1 requirements	See Column Entry for 503	Column entry for Question 503 is applicable.	☐ Open ■ Accepted ☐ Closed ■ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	Column entry for Question 503 is applicable.
505 (Medoff)	TLAA - AMR reconciliation question for Class 1 components designed to design codes other than Section III or B31.1 requirements	See Column Entry for 503	Column entry for Question 503 is applicable.	☐ Open ■ Accepted ☐ Closed ■ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	Column entry for Question 503 is applicable.

Audit Team Tracking Form

Audit Team Question #	Brief Description of the Issue Raised in Audit Team Question	Date Q&A Database/ Other Responses	Brief Description of the Applicant's Response to the Audit Team Question	Status:	Basis for Status:
506 (Medoff)	TLAA - AMR reconciliation question for Non-Class 1 components	TBR	Column entry for Question 503 is applicable.	☐ Open ■ Accepted ☐ Closed ■ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	Column entry for Question 503 is applicable.
507 (Medoff)	RPV Internal Clarification Question	Q&A response: 7/5/2006 LRA Amend: 7/19/2006	Response was acceptable to clarify that only the shroud tie rods received CUF calcs and to propose deletion of a confusing clause in the LRA text. LRA was amended to deleted the conflicting clause from the RPV Internal discussion text.	☐ Open ☐ Accepted ■ Closed ☐ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	
508 (Medoff)	Question asked which fracture mechanics and flaw evaluations were TLAAs for the PNPS LRA.	Initial Response: 07/05/2006 Amended Response: TBR	Initial response clarified that three flaw evaluations had potential to be TLAAs: (1) CRD nozzle cap weld, (2) recirc thermal sleeves, and (3) recirc N2F nozzle but did not meet definition for TLAAs. Amend. response to provide bases why.	☐ Open ☐ Accepted ■ Closed ☐ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	Awaiting amended response. Work request to send amended response to DCI for review. Closed to RAI.

TBR: to be received.

Audit Team Tracking Form

Audit Team Question #	Brief Description of the Issue Raised in Audit Team Question	Date Q&A Database Response	Brief Description of the Applicant's Response to the Audit Team Question	Status:	Basis for Status:
515 (Medoff)	**Critical question** on why the applicant had not performed updated 60-year CUF calculations when over half the transients are projected to exceed their maximum allowables before the expiration fo the PEO.	Init. Resp. 7/5/2006. Amend Resp: TBR	Amended draft response was to indicate that the applicant was committing to perform updated 60-year CUF calcs (including critical Fen impacts) for the RRS piping and either updated calcs, inspections or repair/replacment for RPV components.	☐ Open ■ Accepted ☐ Closed ■ Supp. LRA Amend. ■ Supp. LRA Commit. ■ Update FSAR Supplement	1. Accepted but awaiting revised response containing final changes to Comms #31 and #35 as basis for closing out TLAA 2. LRA and FSAR Supp need updating to include Commits.
517 (Medoff)	Reconciliation Question to resolve differences between 40-year CUF values provided in TLA Table 4.3-1 and those listed in Class 1 design basis CUF calcuations	N/A		☐ Open ☐ Accepted ■ Closed ☐ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	Need for Question was eliminated during second TLAA Audit of July 17-19, 2006. Issue is closed.
341 (Patel)	Question on whether the cranes for PNPS should be TLAAs for the LRA	Q&A: 7/5/2006	Response provides basis why cranes do not need to be within the scope of TLAAs Note: Cranes were not TLAAs for Nine Mile Point but were for Brunswick and Browns Ferry LRA. Cranes at Brunswick and Browns Ferry were Seismic Category I.	☐ Open ☐ Accepted ■ Closed ☐ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	Basis accepted because unlike Brunswick and Browns Ferry, Pilgrim RB Cranes are Seismic Cat II - no CMAA-70 analysis was performed.

Note: Ken Chang would like to see minor revisions of Commitments 31 and 35.

Audit Team Tracking Form

Audit Team Question #	Brief Description of the Issue Raised in Audit Team Question	Date Q&A Database Response	Brief Description of the Applicant's Response to the Audit Team Question	Status:	Basis for Status:
342 (Patel)	Question requested the basis for CUF exclusions in LRA Table 4.3-1	Q&A 7/5/2006 LRA Amend: TBR	Response to Question provided definitive valid ASME Code exclusion paragraphs for those components in LRA Table 4.3-1 that were excluded from CUF calculations	☐ Open ■ Accepted ☐ Closed ■ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	Response was accepted but requires an amendment of the LRA. July 19, 2006 Letter does not include LRA amendment for this question
343	Question asked for clarification on how environmental-fatigue analysis are done for Class 1 components designed to B31.1.	Q&A 7/5/2006 LRA Amend: TBR	Response provide basis for removing Fen impacted CUFs from Table 4.3-3 for three component locations	☐ Open ☐ Accepted ■ Closed ■ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	LRA amendment received on 7/19/06.
344	Question raised the issue why cycle counting alone would ensure the adequacy of the Section III components evaluated by CUF assessments	Q&A 7/5/2006 LRA Amend: TBR	Response provided a basis why cycle counting alone was sufficient. Improved Commitments #31 and #35 are now being used as the basis for TLAA acceptance in lieu of cycle counting. Staff is accepting new Commitments as the basis for TLAA acceptance. Therefore, its appears the response to Question 344 in the July 5, 2006 letter is outdated and needs to be revised and updated.	☐ Open ■ Accepted ☐ Closed ☐ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	Commitments #31 and #35 appear to require a revised Q&A response and LRA amendment in that they are relied on for acceptance. Current responses appear to conflict with new commitments

Audit Team Tracking Form

Audit Team Question #	Brief Description of the Issue Raised in Audit Team Question	Date Q&A Database Response	Brief Description of the Applicant's Response to the Audit Team Question	Status:	Basis for Status:
345	Informed applicant that the CUF value for the feedwater nozzle was inaccurate and requested a new 60-year calculations	Q&A 7/5/2006 LRA Amend: TBR	Response ties to the revised Commitment #35.	☐ Open ☐ Accepted ■ Closed ■ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	LRA amendment received in 7/19/06 letter. Q&A response reflects the newly revised Commitment #35 and is acceptable. Closed.
346 and 347	Ask for clarification on how the environmental CUF values for critical Class 1 components were calculated	Q&A 7/5/2006 LRA Amend: 07/19/2006	Response to Question 346 ties to the revised Commitment #31 Response to 347 proposes minor adjustements of LRA Table 4.3-3 LRA amendments for these questions received in the July 19, 2006 letter.	☐ Open ☐ Accepted ■ Closed ■ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	LRA amendments to these questions received in 7/19/06 letter. Q&A response to 346 reflects the newly revised Commitment #31 and is acceptable. Closed.
425	Requested information why CUF values in LRA Table 4.3-1 did not reflect Thermal Power Optimization impacts in a GE report used for the PNPS design basis.	Q&A 7/5/2006 LRA Amend: TBR	Response was tied to response to Question 345. The response indicates that LRA Table 4.3-1 will be updated to provide the CUF values from the thermal optimization report for pertinent components and thus requires a LRA amendment. This license amendment was not included in the July 19, 2006 letter.	■ Open ☐ Accepted ☐ Closed ■ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	Still open according to the July 5, 2006 Q&A Database. However, the response to 425 should reflect new Commitments #31 and 35. Awaiting LRA amendment.

Audit Team Tracking Form

Audit Team Question #	Brief Description of the Issue Raised in Audit Team Question	Date Q&A Database Response	Brief Description of the Applicant's Response to the Audit Team Question	Status:	Basis for Status:
426 and 427	Questions on metal fatigue evaluations for emergency diesel expansion bellows	Q&A 7/5/2006	Responses informed staff that the TLAAs for EDG expansion bellows were done to B31.1 requirements are valid for PEO.	☐ Open ■ Accepted-426 ■ Closed-427 ☐ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	Response to 426 was accepted. Response to 427 was closed.
No Question but Pertains to the next LRA Update	Consistent with what was done for Vermont Yankee - Removal of BWRVIP-48 and BWRVIP generic fatigue analyses as TLAAs for the PNPS LRA		During followup audit, project team informed PNPS that the generic analyses only had to be TLAAs if there was a corresponding plant-specific analysis for the RPV interior attachment welds and instrument penetration nozzles. This is reflected in the NRC's SEs on the BWRVIP-48 and -49 Reports. PNPS does not include plant-specific CUF analyses for these RPV components. Generic analyses should be sufficient to ensure management of fatigue.	☐ Open ☐ Accepted ☐ Closed ■ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	Anticipating that the next Yearly LRA Update will remove these generic analyses as TLAAs (Refer to LRA Sections 4.7.2.2 and 4.7.2.3. This is already reflected in the draft audit report writeup.
				☐ Open ☐ Accepted ☐ Closed ☐ Supp. LRA Amend. ☐ Supp. LRA Commit. ☐ Update FSAR Supplement	

manage for the EPO, propose an acceptable AMP for the management of the aging effect in accordance with the criterion in 10 CFR 54.21(c)(1)(iii).

RESPONSE:

If no CUF calculation was performed, there is no time-limited aging analysis. Without an analysis, the criterion in 10 CFR 54.21(c)(1)(iii) cannot apply since this criterion is applied when an analysis cannot be shown valid or projected through the period of extended operation. However, an acceptable AMP to manage the aging effect "cracking-fatigue" is specified under the column "Alternate AMP" where applicable for those items without a fatigue analysis.

delete

Table 3.1.2-1 is for the reactor vessel. All components in this table are designed to ASME Section III and are included in the reactor vessel fatigue analysis (Altran Technical Report 93177-TR-03, Pilgrim Reactor Vessel Cyclic Load Analyses) in accordance with the 1989 edition of Section III of the ASME code. This analysis specifically calculated CUFs for the limiting locations of the reactor vessel. Although no specific CUFs were calculated for non-limiting reactor vessel locations, these locations are bounded by the limiting locations.

Table 3.1.2-1 Reactor Pressure Vessel

Component	Code	Section 4	Alternate AMP	Comments
All reactor vessel components listed in Table 3.1.2-1	ASME Section III	4.3.1, 4.3.1.1, 4.3.1.4 for main feedwater nozzles	None – maintain TLAA for reactor vessel components.	Components with no calculated CUF are bounded by the limiting components with CUFs listed in Table 4.3-1. Section 4.3.1 will be amended to discuss that the TLAA bound these components.

Table 3.1.2-2 is for the reactor vessel internals. The components of the internals that are built to ASME Section III are the welded core support components that were provided by the vessel supplier.

Table 3.1.2-2 Reactor Vessel Internals

Component	Code	Section 4	Alternate AMP	Comments	BWRVIP
Control rod guide tubes • Tube	N/A	N/A	BWR Vessel Internals	EVT1	~~-74~~ ?-47
Control rod guide tubes • Base	N/A	N/A	BWR Vessel Internals	EVT-1	~~-74~~ ?-47
Core plate assembly • Plate, beams, alignment assemblies • Alignment bolts/nuts • Wedges	N/A	N/A	BWR Vessel Internals		-25
Core spray lines	N/A	N/A	BWR Vessel Internals		-18A

Entergy

Entergy Nuclear Operations, Inc.
Pilgrim Station
600 Rocky Hill Road
Plymouth, MA 02360

July 19, 2006

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

SUBJECT: Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
Docket No. 50-293 License No. DPR-35

License Renewal Application Amendment 5

REFERENCE: Entergy letter, License Renewal Application, dated January 25, 2006 (2.06.003)

LETTER NUMBER: 2.06.064

Dear Sir or Madam:

In the referenced letter, Entergy Nuclear Operations, Inc. applied for renewal of the Pilgrim Station operating license.

During the weeks of May 22, 2006 and June 19, 2006, the NRC performed on-site audits of the License Renewal Application. As a result of these audits, clarifications to the License Renewal Application have been developed and are provided as Attachments B and C to this letter. Attachment A consists of the revised list of regulatory commitments. Attachment B consists of changes to the License Renewal Application. Attachment C consists of the Bolting Integrity Program that is added as a supplement to License Renewal Application Appendix A (UFSAR Supplement) and Appendix B (Aging Management Programs and Activities).

Please contact Mr. Bryan Ford, at (508) 830-8403, if you have any questions regarding this subject.

I declare under penalty of perjury that the foregoing is true and correct. Executed on July 19, 2006.

Bryan Ford
Acting Director, Nuclear Safety Assessment

DWE/bg

Attachments: (as stated)

cc: see next page

#	COMMITMENT	IMPLEMENTATION SCHEDULE	SOURCE	Related LRA Section No./ Comments
31	At least 2 years prior to entering the period of extended operation, for the locations identified in NUREG/CR-6260 for BWRs of the PNPS vintage, PNPS will implement one or more of the following: (1) Refine the fatigue analyses to determine valid CUFs less than 1 when accounting for the effects of reactor water environment. This includes applying the appropriate Fen factors to valid CUFs determined in accordance with one of the following: 1. For locations with existing fatigue analysis valid for the period of extended operation, use the existing CUF to determine the environmentally adjusted CUF. 2. More limiting PNPS-specific locations with a valid CUF ~~may be substituted for the NUREG/CR-6260 locations.~~ 3. Representative CUF values from other plants, adjusted to or enveloping the PNPS plant specific external loads may be used if demonstrated applicable to PNPS. 4. An analysis using an NRC-approved version of the ASME code of NRC-approved alternative (e.g., NRC-approved code case) may be performed to determine a valid CUF. (2) Manage the effects of aging due to fatigue at the affected locations by an inspection program that has been reviewed and approved by the NRC (e.g., periodic non-destructive examination of the affected locations at inspection intervals to be determined by a method acceptable to the NRC). (3) Repair or replace the affected locations prior to the period of extended operation and the location exceeding a CUF of 1.0. Should PNPS select the option to manage the aging effects due to environmental-assisted fatigue during the period of extended operation, details of the aging management program such as scope, qualification, method, and frequency will be submitted to the NRC at least 2 years prior to the period of extended operation.	June 8, 2012 June 8, 2010 for submitting the aging management program if PNPS selects the option of managing the affects of aging due to environmentally assisted fatigue.	Letter 2.06.064	4.3.3/ Audit Items 302 & 346
32	Enhance the Bolting Integrity Program in accordance with a license renewal application amendment.	June 8, 2012	Letter 2.06.057	Audit items 364, 373, 389, 390, 432, 443, & 470

NUREG/CR-6260 locations not applicable to PNPS may be substituted by equivalent or

or methodology

#	COMMITMENT	IMPLEMENTATION SCHEDULE	SOURCE	Related LRA Section No./ Comments
33	PNPS will inspect the inaccessible jet pump thermal sleeve and core spray thermal sleeve welds if and when the necessary technique and equipment become available and the technique is demonstrated by the vendor, including delivery system.	As stated in the commitment	Letter 2.06.057	Audit Item 488
34	Within the first 6 years of the period of extended operation and every 12 years thereafter, PNPS will inspect the access hole covers with UT methods. Alternatively, PNPS will inspect the access hole covers in accordance with BWRVIP guidelines should such guidance become available.	June 8, 2018	Letter 2.06.057	Audit Item 461
35	At least 2 years prior to entering the period of extended operation, for reactor vessel components, including the feedwater nozzles, PNPS will implement one or more of the following: (1) Refine the fatigue analyses to determine valid CUFs less than 1. Determine valid CUFs based on numbers of transient cycles projected to be valid for the period of extended operation. Determine CUFs in accordance with an NRC-approved version of the ASME code or NRC-approved alternative (e.g., NRC-approved code case). (2) Manage the effects of aging due to fatigue at the affected locations by an inspection program that has been reviewed and approved by the NRC (e.g., periodic non-destructive examination of the affected locations at inspection intervals to be determined by a method acceptable to the NRC). (3) Repair of replace the affected locations prior to the period of extended operation and the location exceeding a CUF of 1.0. Should PNPS select the option to manage the aging effects due to fatigue during the period of extended operation, details of the aging management program such as scope, qualification, method, and frequency will be submitted to the NRC at least 2 years prior to the period of extended operation.	June 8, 2012 June 8, 2010 for submitting the aging management program if PNPS selects the option of managing the affects of aging.	Letter 2.06.064	Audit Item 345
36	To ensure that significant degradation on the bottom of the condensate storage tank is not occurring, a one-time ultrasonic thickness examination in accessible areas of the bottom of the condensate storage tank will be performed. Standard examination and sampling techniques will be utilized.	June 8, 2012	Letter 2.06.057	Audit Item 363

recirculation outlet nozzles, and core shroud tie rods

or methodology