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Mendiola, Doris

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From: Mary Lampert [mailto:mary.lampert@comcast.net]
Sent: Friday, October 24, 2014 5:26 PM
To: Bladey, Cindy
Cc: Morgan, Nadiyah
Subject: PW DNAC Comment NRC 2014-0202

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Hello:

Please find Pilgrim Watch & The Town of Duxbury Nuclear Advisory Committee Comment Regarding Entergy's Request For A License Amendment For The Pilgrim Nuclear Power To Revise TS 4.3.4.B To Reflect The Removal Of The Energy Absorbing Pad And Installation Of A Leveling Platform. We submitted the comment on regulations.gov; however to assure that it is on record, a copy is sent to you. If you have any difficulty in opening the file, please call Mary Lampert at 781.934.0389.

Thank you,

Mary

SUNSI Review Complete
Template = ADM - 013
E-RIDS= ADM-03
Add= *n. Morgan (nsm)*

Docket ID NRC-2014-0202

<http://www.regulations.gov>
cindy.bladey@nrc.gov
nadiyah.morgan@nrc.gov

October 24, 2014

Pilgrim Watch & The Town of Duxbury Nuclear Advisory Committee Comment Regarding Entergy's Request For A License Amendment For The Pilgrim Nuclear Power To Revise TS 4.3.4.B To Reflect The Removal Of The Energy Absorbing Pad And Installation Of A Leveling Platform.

The proposed amendment would revise Technical Specification (TS) 4.3.4.b to reflect the removal of the energy absorbing pad from the spent fuel pool and the installation of a leveling platform. The NRC has made a proposed determination that the license amendment request involves no significant hazards consideration. Under the NRC's regulations in §50.92 of Title 10 of the *Code of Federal Regulations* (10 CFR), this requires that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

It is premature for NRC to grant the request because Entergy has not provided necessary documents in response to NRC's September 26, 2014 RAI so that the public can make an informed response. For example, Entergy's response (ADAMS ML14280A230) to the NRC's RAI regarding spent fuel pool modifications included Attachment 6, purportedly an affidavit by Holtec, seeking to withhold information from public disclosure. Until that information and complete responses to all RAI questions are made public the license amendment request cannot be granted because until it is made public, meaningful public comment is not possible.

Pilgrim Watch (Hereinafter "PW") and the Town of Duxbury Nuclear Advisory Committee believe that PW's members and the Town of Duxbury stand to be adversely affected if the license amendment is granted by NRC; and because of Entergy's failure to fully disclose, we simply do not know yet how adversely affected.

Pilgrim Watch (“PW”) is a non-profit citizens’ organization that serves the public interest in issues regarding the Pilgrim Nuclear Power Station, a Mark I BWR. The organization is located at 148 Washington Street, Duxbury, Massachusetts, 02332. Many of its members live within the immediate neighborhood of the reactor, and others either within the 10 -mile Emergency Planning Zone or within the 50-mile ingestion pathway. Mary Lampert who represents PW makes her residence and place of occupation and recreation within an approximate six (6) miles of Pilgrim Nuclear Power Station. The Town of Duxbury Nuclear Advisory Committee (Hereinafter “DNAC”) is appointed by the town to provide advice on nuclear matters as they pertain to the community. Duxbury is within Pilgrim NPS’s 10-mile Emergency Planning Zone.

Discussion

A. Public Participation- a Charade

On September 22, 2014, the Nuclear Regulatory Commission published a proposed no significant hazards consideration determination for public comment and the opportunity to request a hearing and petition for leave to intervene in the *Federal Register* (79 FR 56608) in response to Entergy’s application to revise Technical Specification 4.3.4.b to reflect the removal of the energy absorbing pad from the spent fuel pool and the installation of a leveling platform for Pilgrim NPS.

However, Entergy already has removed its energy absorbing pad and installed the leveling platform is installed; and will very, very soon begin moving spent fuel assemblies. Grant of the amendment will be a fait accompli BEFORE the public comment and opportunity to request a hearing began. Therefore there is no conceivable chance that anything that the public may say or do, irrespective of its merit, can make any difference. It is a done deal. In the oft chance that a hearing is requested, the NRC has assured that the license amendment will go forward when Entergy needs it.

The Federal Register Notice (56608 Federal Register / Vol. 79, No. 183 / Monday, September 22, 2014 / Notices) says that:

The Commission may issue the license amendment before expiration of the 60-day notice period if the Commission concludes the amendment involves no significant hazards consideration. In addition, the Commission may issue the amendment prior

to the expiration of the 30-day comment period should circumstances change during the 30-day comment period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility. Should the Commission take action prior to the expiration of either the comment period or the notice period, it will publish in the Federal Register a notice of issuance. Should the Commission make a final No Significant Hazards Consideration Determination, any hearing will take place after issuance. The Commission expects that the need to take this action will occur very infrequently.” (Emphasis added)

In other words, the NRC’s plan is to “issue the license amendment before expiration of the 60-day notice period,” “prior to the expiration of the 30-day comment period,” and certainly in time to insure that Entergy can move spent fuel assemblies without violating its license any more than it already has. Prior to granting the license amendment, the energy absorbing pad was removed from the spent fuel pool, the leveling platform installed and a dry run training exercise of the activities with dry cask loading with a specially designed simulated MPC that approximates the 40 ton weight of an MPC loaded with fuel performed.

B. Insufficient Information Provided

The public input charade continued with Entergy hiding all its analyses in documents marked “proprietary.” Therefore the public is not provided with the facts required to show that the proposed license amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

“Proprietary Information”

Entergy’s response to NRC’s September 26, 2014 RAI withholds necessary information by hiding behind a claim of “Proprietary Information.” On the cover of the response, it says that, “Attachments 7 through 11 contain proprietary information to be withheld from public disclosure under 10 CFR 2.390.” The attachments include:

7. Holtec Proprietary Drawing 8262 Sheet 1 "Platform, Leveling Adjustable Assembly" (1 Page)
8. Holtec Proprietary Drawing 8262 Sheet 2 "Platform, Leveling Adjustable Assembly" (1 Page)
9. Holtec Proprietary Drawing 8777 Sheet 1 "Spent Fuel Pool Dry Cask Configuration" (1 Page)
10. Holtec Proprietary Drawing 8777 Sheet 2 "Spent Fuel Pool Dry Cask Configuration" (1 Page)
11. Holtec Proprietary Report HI-2104715 Rev. 7 "Seismic Analysis of the Loaded HI-TRAG in the SFP and SFP Slab Qualification" (112 Pages)

Attachments 2-5 Provided in Response to RAI

Entergy provided Attachments 2-5; but those drawings are impossible to read or do not provide the information required for anyone, including the NRC, to make an informed judgment.

RAI Responses –Proprietary Information

Entergy's response to NRC's RAI intentionally guaranteed that that the public would be kept in the dark and unable to make meaningful comment; there is no evidence to indicate that the NRC objected.

1. NRC RAI Question 2- Seismic Events

NRC RAI Question 2 asked, "Provide a discussion of the technical evaluation performed to confirm the stability of the transfer cask placement on the leveling platform point of reference during a design basis seismic event."

Entergy responded that, "The evaluation of the HI-TRAG loading on the spent fuel pool floor liner and concrete slab, including seismic stability analysis of the HI-TRAG on the leveling platform is presented in reference 5." Reference 5 is Holtec **Proprietary Report** HI-2104715 Rev. 7 "Seismic Analysis of the Loaded HI-TRAC in the SFP and SFP Slab Qualification" (See Attachment 11) (Emphasis added.)

What's wrong?

First, Entergy did not meet the regulatory requirements for disclosures. Second, the withheld seismic analysis is important for the public to determine whether the license amendment would

not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

Entergy did not meet the regulatory requirements for disclosures:

Its response to the RAI's question 2 (ADAMS ML14280A230) regarding spent fuel pool modifications included Attachment 6, purportedly an affidavit by Holtec, seeking to withhold information from public disclosure. This 5-page document is signed by Kimberly Manzione of Holtec International. The affidavit did not comply with 10 CFR 2.390. David Lochbaum's October 9, 2014 comment to NRC showed that:

This affidavit does not comply with 10 CFR 2.390 in that it fails to identify the official position of the person making the affidavit. 10 CFR 2.390 states:

(B) Each document or page, as appropriate, containing information sought to be withheld from public disclosure must indicate, adjacent to the information, or as specified in paragraph (b)(1)(i)(A) of this section if the entire page is affected, the basis (i.e., trade secret, personal privacy, etc.) for proposing that the information be withheld from public disclosure under paragraph (a) of this section.

(ii) The Commission may waive the affidavit requirements on request, or on its own initiative, in circumstances the Commission, in its discretion, deems appropriate. Otherwise, except for personal privacy information, which is not subject to the affidavit requirement, the request for withholding must be accompanied by an affidavit that--

(A) Identifies the document or part sought to be withheld;

(B) Identifies the official position of the person making the affidavit;

(C) Declares the basis for proposing the information be withheld, encompassing considerations set forth in § 2.390(a);

(D) Includes a specific statement of the harm that would result if the information sought to be withheld is disclosed to the public; and

(E) Indicates the location(s) in the document of all information sought to be withheld.

(iii) In addition, an affidavit accompanying a withholding request based on paragraph (a)(4) of this section must contain a full statement of the reason for claiming the information should be withheld from public disclosure. This statement

must address with specificity the considerations listed in paragraph (b)(4) of this section. In the case of an affidavit submitted by a company, the affidavit shall be executed by an officer or upper-level management official who has been specifically delegated the function of reviewing the information sought to be withheld and authorized to apply for its withholding on behalf of the company. The affidavit shall be executed by the owner of the information, even though the information sought to be withheld is submitted to the Commission by another person. The application and affidavit shall be submitted at the time of filing the information sought to be withheld. The information sought to be withheld shall be incorporated, as far as possible, into a separate document. The affiant must designate with appropriate markings information submitted in the affidavit as a trade secret, or confidential or privileged commercial or financial information within the meaning of § 9.17(a)(4) of this chapter, and such information shall be subject to disclosure only in accordance with the provisions of § 9.19 of this chapter.

Because Holtec/Entergy has NOT complied with regulatory requirements for disclosures, PW and DNAC assume that NRC will make ALL the information publicly available or REJECT the bogus affidavit, require that Entergy responds again and make that response immediately available to the public. Until such time, meaningful public comment and NRC action on the license amendment is not possible.

Updated Seismic Analysis-Importance

Entergy's seismic analysis must be disclosed so that the public learns whether the "design basis seismic event" is based on today's analysis of the risk in this area or whether it is based on earlier and outdated estimates. The facts and assumptions on which that analysis is based must be disclosed so that the public is able to understand and evaluate it. We know that:

- The newly evaluated seismic risk for Pilgrim is larger than the reactor is designed to withstand.
- The updated seismic data shows that Pilgrim could feel the effects of earthquakes as far away as 400 miles, double the previously estimated distance.
- Senators Markey and Warren in a letter to NRC Chair Macfarlane,¹ March 31, 2014 noted that, "The new seismic hazard was found to exceed the safe shutdown earthquake at the ground shaking frequencies that are most likely to threaten the equipment needed to

¹ Senators Markey Warren letter NRC 3.31.14 A copy of the letter to the NRC can be found [HERE](#).

safely shut down the reactor.” Further, the Senators expressed special concern about Entergy’s March 10 request to the NRC asking for permission to alter some of the numbers used to model the geologic properties of the bedrock on which the Pilgrim nuclear plant sits to “prevent unjustified alarm by stakeholders when GMRS [ground motion response spectrum] results are made public.”

- On May 2014 Entergy completed a seismic walk-down at Pilgrim. The NRC staff assessment of the walk-down concluded that, “... the licensee, through the implementation of the walk-down guidance activities and, in accordance with plant processes and procedures, verified the plant configuration with the current seismic licensing basis; addressed degraded, nonconforming, or unanalyzed seismic conditions; and verified the adequacy of monitoring and maintenance programs for protective features. Furthermore, the NRC staff notes that no immediate safety concerns were identified.”² But, significantly NRC failed to say that the seismic walk-downs were based on earlier and outdated understanding of seismic risk here.

Therefore, it seems clear to us that:

- Before Entergy’s license is amended, it is necessary for Entergy to show the NRC and public that “the leveling platform was evaluated to confirm its stability” during a seismic event that we now understand can occur, and not on the basis of a design basis that is many years old and does not consider important up-to-date information.
- Before Entergy’s license is amended, Entergy and the NRC must make available to the public the facts and assumptions on which the stability of the leveling platform during a seismic event was evaluated.
- The NRC must base its evaluation of Entergy’s seismic response, not on earlier and outdated understandings of seismic risk, but on today’s knowledge.
- The NRC seems simply to question the stability of the transfer cask placement on the leveling platform point of reference during a design basis seismic event. We believe that the NRC also must provide data to show that the crane and its supporting structures (RIS 2005-25, pg., 12) are based on current seismic risk. Because, Entergy’s justification for the license amendment request rests heavily on the single-failure proof crane.

² NRC Electronic Library ADAMS, Accession No. ML 14127A104

- **Bottom line, PW and DNAC believe that because the required post-Fukushima reassessment of Pilgrim’s vulnerability to earthquakes will not be completed until 2017, it is premature to grant approval.**

2. **RAI Question 5** asks Entergy to “describe any analyses completed to verify SFP liner integrity during MPG loading operations, including the mechanical loads considered (dead, live, and seismic), design features of the leveling platform that affect the loading on the SFP liner, important analysis assumptions, and analytical results.” Entergy’s response references four proprietary documents (5, 7, 8, and 9) leaving the public in the dark.

C. Entergy’s Non-Proprietary RAI Responses- Insufficient

1. **RAI Question 4** asks “With the removal of the energy absorbing pad, provide a discussion of the protection(s) in place for the SFP liner.” Entergy’s response says that the energy absorbing pad is no longer required for two reasons. (1)The dry fuel storage cask handling operations will be conducted with a single-failure-proof handling system. (2) The leveling platform protects the 1" thick Spent Fuel Pool liner plate in the cask storage area by providing explicitly designed bearing pads at six locations to distribute and transfer cask loadings to the Spent Fuel Pool concrete structure.

What’s wrong?

Single-Failure Proof: By NRC's rules, single-failure proof cranes never fail. Never! NRC has once again raised its magic wand and made the problem disappear. Thus, NRC does not entertain issues about what happens when a single-failure proof crane fails and drops a 40 ton load. Entergy admits that it can fail. Letter 2.13.042, Attachment 1, pg., 6 (ML13346A026) says “The probability of dropping this load onto an irradiated fuel assembly in the canister is **reduced** as a result of the reliability of the single-failure-proof handling system.” (Emphasis added) Reduced does not mean eliminated. A single failure proof crane may increase the probability that a drop will not occur, but does not provide a guarantee or certainty that it won’t. Neither

Entergy nor the NRC bothers to explain why an added layer of defense-in-depth (the pad) would be superfluous.

There are a number of questions regarding the single-failure proof upgrades that are not answered.

- Was the existing crane bridge evaluated by NRC to single failure proof standards? If so how? Was there, for example, cold proof testing? What were the results of NRC's crane bridge evaluations?
 - What critical welds were tested (including those in bridge girders and truck structure)? How were they tested and what were the results?
 - What assumptions were made in the analysis?
 - Was the proper updated seismic risk used in the analysis?
-
- **Leveling Platform:** Entergy says that it removed the pad to accommodate the Holtec system, But important questions are left unanswered. Entergy provides no analysis to show why it could not re-install a pad after the platform was in place in order to provide added protection. There is no information regarding the thickness of the pad that was removed and the space available under the newly installed platform. Some Mark I BWR reactors have transferred assemblies to casks for some time. In those reactors, how many have removed the pads and how many have pads; what is the thickness of those pads; and how many also have platforms? Last, there is no comparison made between the pad and its weight distribution capability with the weight distribution capability of the platform with its six bearing pads.

2. **RAI Question 5**, discussed in part above, asks Entergy to “describe any analyses completed to verify SFP liner integrity during MPG loading operations, including the mechanical loads considered (dead, live, and seismic), design features of the leveling platform that affect the loading on the SFP liner, important analysis assumptions, and analytical results.” Entergy’s response is hidden in “proprietary” documents; but Entergy does say that that the 2” thick bearing pads at each support pedestal location demonstrate “a large factor of safety.”

That answer utterly fails to answer the question, and would result in a failing grade at any engineering school. The question was directed to SFP liner integrity; the answer never even

mentions the SFP liner, much less what load it is designed to support, or the extent to which its ability to support a load and not to fail depends on how the load is distributed or on whether the load is static. Without showing its analysis there is no basis to take the statement at face value. For example, what does a “large factor of safety” mean and what assumptions went into that determination? Further Entergy’s response talks about vertical monitoring trenches. It provides no explanation of what function they serve.

D. Acts of Malice & Human Error

There is no information concerning how, or if, acts of malice were accounted for in Entergy’s analysis of the single failure proof crane upgrades or of the removal of the energy absorbing pad and installation of a leveling platform. Part of the single-failure proof crane requirements is periodic inspections. Unless security is provided from the most recent inspection until the next, there is reduced assurance that someone tampering with the crane/hoist/rigging will not be detected, at least until the dropped cask makes a very loud noise. The loaded cask weighs about 40 tons. If it drops, what will it hit and what will the consequences be?

There also is no information on how, or if, human error in operations and manufacturing is accounted for in Entergy’s analysis of the single failure proof crane upgrades or of the removal of the energy absorbing pad and installation of a leveling platform. If it is dealt with by conservatisms, what are they? Human error is an important issue in heavy load handling. RIS 2005-25, pg., 4 said in its summary of the issue that,

Heavy load handling at nuclear power plants may involve risk to stored irradiated fuel and to equipment necessary for a safe shutdown of the reactor. Although the estimated frequency of heavy load drops is low, there is considerable uncertainty when determining the risk of heavy load movement. Drop frequency is highly dependent on human performance, and it is difficult to identify safe shutdown systems that may be affected by potential load drops. Therefore, the staff is clarifying and reemphasizing existing regulatory guidelines that enhance human performance or compensate for human performance errors. Many of these guidelines have been incorporated in site-specific heavy load programs described in the facility’s safety analysis report.

E. Offsite Potential Release

Entergy's September 14, 2014 Letter 2.14.065, Analysis of Proposed Technical Specification Change (ML 14259A381) says:

NUREG-0612 evaluation of offsite release potential due to a load drop accidents shows that a decay time of 44 days for Boiling Water Reactors that exhaust through charcoal filters (i.e. the Standby Gas Treatment System) will assure that offsite releases, due to dropping of postulated heavy loads on fuel which has been subcritical for the required decay time, will not cause doses that approach 10CFR100 limits." (pg., 7) Emphasis added.

There are a number of questions and problems with Entergy's statement.

- a. If the load drop resulted in a spent fuel pool fire, is it not clear how there can be charcoal filtering?
- b. Were release consequences of a load drop accident that does not involve exhaust through charcoal filters, analyzed, what were the results; and if not analyzed, what conceivably could be the rationale?
- c. Were load drop accidents analyzed that, as RIS 2005-25 explains, penetrate the floor and "could simultaneously initiate an accident and disable equipment necessary to mitigate the accident?" What were the results; and if not analyzed, why not?
- d. Entergy quoted from NUREG-0612; but we believe that is a 1980 document. Please explain how its 34 year old conclusions remain applicable to Pilgrim's spent fuel pool inventory in 2014.
- e. The attachments to the license amendment say "The probability of dropping this load onto an irradiated assembly is reduced as a result of the single-failure-proof failure system." (ML13346A025, pg., 6) It does not explain how much it is reduced and the assumptions that went into the calculation.

The public requires answers to these questions, with supporting documentation, prior to approval of the license amendment request.

Conclusion

It is premature for NRC to grant the request because Entergy has not provided necessary documents in response to NRC's September 26, 2014 RAI so that the public can make an informed response.

Second, if the license amendment is granted PW and DNAC request that NRC require the reactor to be shutdown during transfer operations - an added measure of defense in depth. Risk of a drop may be lessened but not eliminated. The leveling platform that supposedly “protects the 1" thick Spent Fuel Pool liner plate” may protect better on paper than in an actual drop. One of the principal reasons the plant should be shut down then is clear from RIS 2005-25:

For BWR plants with a Mark I or Mark II containment, many heavy loads (e.g., spent fuel casks and drywell shield blocks) are lifted and moved on the upper floor of the reactor building while the reactor is operating at power. If a floor breach were to occur during a load drop, safety-related components located on the lower floors could be adversely affected. A load drop that penetrates the operating floor in certain areas could simultaneously initiate an accident and disable equipment necessary to mitigate the accident.”

(Emphasis added)

Respectfully submitted,

Mary Lampert
Pilgrim Watch, director
148 Washington Street
Duxbury, MA 02332
Tel. 781-934-0389
Email: mary.lampert@comcast.net
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Rebecca J. Chin
Duxbury Nuclear Advisory Committee, co-chair
31 Deerpath Trail, North
Duxbury, MA 02332
Tel.781-837-0009
Email: rebeccajchin@hotmail.com
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