



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

July 6, 2011

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

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

10 CFR 50.46(a)(3)(ii) Report

- REFERENCES:
1. GE Hitachi Proprietary Information- 10 CFR 50.46 Notification Letter 2011-02, dated June 6, 2011
  2. GE Hitachi Proprietary Information- 10 CFR 50.46 Notification Letter 2011-03, dated June 6, 2011
  3. Global Nuclear Fuel Letter No. LRW-ENO-HK1-11-071, Transmittal of "Pilgrim C19 Administrative MAPLHGR Multipliers", dated May 13, 2011
  4. Pilgrim Event Notification No. 46933, "Errors in Methodology used for Emergency Core Cooling System performance Requirements, 10 CFR 50.72(b)(3)(ii)(B)", dated June 7, 2011

LETTER NUMBER: 2.11.046

Dear Sir or Madam:

Pursuant to 10 CFR 50.46(a)(3)(ii), Entergy is submitting a 30 day report to identify that the errors addressed in General Electric Hitachi (GEH) 50.46 Notification Letters 2011-02 and 2011-03 (References 1 and 2) are significant. These notification letters indicate that a rise in calculated peak fuel cladding temperature of more than 50 °F exists from the fuel temperature calculated for the limited transient identified for Pilgrim Cycle 19 reload calculations for Emergency Core Cooling System (ECCS) performance.

GE Hitachi 50.46 Notification Letters identified the errors involved input coefficients used in calculation of heat deposition resulting from gamma radiation for both GNF2 and GE14 fuel

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were under predicted or minimized. The cumulative effect of the errors amounted to increases in the Peak Clad Temperature of 55 °F for GNF2 fuel and 110 °F for GE14 Fuel.

Prior to the Notification Letters (References 1 and 2), Global Nuclear Fuel (GNF) supplier recommended to Pilgrim by Reference 3 the use of interim administrative MAPLHGR Multipliers for Cycle 19, indicating they are investigating errors in the ECCS performance calculations. Pilgrim Cycle 19 operation began on or about May 15, 2011, following the restart from refueling outage 18. The GEH provided multiplier was incorporated into a Pilgrim Operations Standing Order which provides compliance bases for peak cladding temperature to be less than 2200°F.

An Operability Evaluation of the GE Hitachi reported error has determined that the administrative limit on MAPRAT (compensatory measures) currently in effect, ensures that the PCT remains below the 10 CFR 50.46 limit of 2200°F. The Single Loop MAPLHGR multiplier and other 50.46 criteria on the clad oxidation and hydrogen generation are not impacted by the reported errors.

Since the implemented compensatory measure ensures compliance with the 10CFR50.46 PCT limit of 2200 °F, the errors reported have no impact on the public health and safety.

Entergy conservatively submitted an Event Notification pursuant to 10 CFR 50.72 (Reference 4) on June 7, 2011. This 8-hour notification was made in accordance with 10 CFR 50.72 (b)(3)(ii)(B).

Based on 50.46(a)(3)(ii) criteria, the error discovered considered significant and Entergy/Pilgrim is in contact with Global Nuclear Fuel and GE Hitachi to provide revised analysis. Global Nuclear Fuel has committed to deliver the revised Cycle 19 Safety Reload Licensing Report (SRLR) and databank update by September 2011. Based upon the reanalysis, Entergy/ Pilgrim will revise the Core Operating Limits Report (COLR) correcting reported errors and submit the revised COLR to the NRC by November 30, 2011.

This letter contains one commitment and is included in Attachment No.1

Please feel free to contact me, (508) 830-8403, if you have any questions regarding this report.

Sincerely,



Joseph R. Lynch,  
Licensing Manager

Attachment No. 1: List of Regulatory Commitments (1 Page)

cc: Mr. Richard Guzman, Project Manager  
Plant Licensing Branch I-1  
Division of Operator Reactor Licensing  
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Senior Resident Inspector  
Pilgrim Nuclear Power Station

ATTACHMENT NO. 1

List of Regulatory Commitments

No.	Description of Commitment	Due Date Schedule	Commitment Type
1	Entergy/ Pilgrim will revise the Core Operating Limits Report (COLR) correcting reported errors and submit the revised COLR to the NRC by November 30, 2011.	11-30-2011	One Time