



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
2100 RENAISSANCE BLVD.
KING OF PRUSSIA, PA 19406-2713

June 6, 2016

Mr. David Lochbaum
1825 K Street NW, Suite 800
Washington, DC 20006-1232

Dear Mr. Lochbaum:

I am responding to your March 18, 2016, letter to Region I Administrator Dan Dorman in which you asked about differences in the assessment of what you believed to be similar control room ventilation issues at Pilgrim Nuclear Power Plant and River Bend Station. As we will explain, there were differences in the two instances that caused us to assess the issues differently.

As documented in the Pilgrim Inspection Procedure (IP) 95003 Phase 'A' inspection report, Region I inspectors reviewed Entergy's disposition of a previously identified issue associated with control room ventilation system performance at Pilgrim to evaluate the effectiveness of the site's corrective action program. As discussed in the report, Pilgrim workers documented in a condition report that a control room heat load analysis completed in 2008 determined that after a loss of normal heating, ventilation, and air conditioning, control room temperatures would reach 114°F causing a control room habitability issue. Entergy initially developed a modification to install an augmented cooling system to address this issue; however, the planned completion of the modification was extended multiple times and then finally was canceled in 2015. The report stated the inspectors dispositioned this issue as minor in accordance with Inspection Manual Chapter 0612 and determined that there were no licensing or design basis documents that established a control room temperature limit for operator habitability.

You questioned the disposition of this issue based on the findings in a special inspection report that reviewed the circumstances surrounding a loss of the control building chilled water system event at River Bend on March 9, 2015, and Entergy Corporate procedure EN-IS-108, "Working in Hot Environments," which defines the required practices and precautions to enter and work safely in hot environments. You concluded that, contrary to what was stated in the Pilgrim IP 95003 Phase 'A' inspection report, the determination that potential control room temperatures could rise to 114°F during a loss of control room heating, ventilation, and air conditioning at Pilgrim was a more than a minor finding based on the results of the detailed NRC risk assessment of a similar potentially greater-than-green control room temperature condition discussed in the River Bend special inspection report, and because the issue seemed to violate "the current licensing and design basis requirements at Pilgrim defined in EN-IS-108."

In response to your question we reviewed the assessments for these two inspection issues. Since we received your letter on this issue, on May 11, 2016, Region IV issued Inspection Report 05000458/2016001 that documented the final significance determination for the River Bend potentially greater-than-green control building chilled water system finding. As documented in this report, after considering the information reviewed during the inspection and the information Entergy provided at a Regulatory Conference held in Region IV on April 4, 2016, the NRC ultimately concluded that the finding was of very low safety significance, Green.

Our review also concluded that canceling the proposed implementation of auxiliary cooling for the control room at Pilgrim and allowing temperatures to potentially increase to 114°F was not a performance deficiency or a violation of regulatory requirements. As long as control room temperatures at Pilgrim remain less than 120°F, the systems impacted by control room temperatures remain within their design and there would be no adverse effect on safety-related equipment in the affected spaces. Currently there are no licensing or design basis documents that establish a control room temperature limit for operator habitability at Pilgrim and, based on discussions with the IP 95003 inspectors, although there could be staffing challenges during a loss of control room ventilation event where temperatures increase above 90°F in the control room, until control room ventilation is restored, site procedures are adequate to deal with the control room habitability concerns caused by increased temperatures.

A review of Entergy procedure 2.4.149, "Loss of Control Room Air Conditioning," determined that the procedure directed that, if the Pilgrim control room ambient temperature reached 85°F, operators were to review Entergy procedure EN-IS-108, "Working in Hot Environments," for appropriate measures. For a loss of control room heating, ventilation, and air conditioning at Pilgrim, this procedure would require establishing control room operator stay times and recovery times based on wet bulb globe temperatures and additional measures to address individual operator medical conditions. Therefore, the inspectors concluded that the actions directed by the Pilgrim loss of control room ventilation procedure referred to the Entergy standard for working in hot environments and were adequate to mitigate the adverse effects of the increased temperatures on operators in the control room and ensure safe plant operation.

Based on our review of this issue in response to your question, we determined the Pilgrim report could have more clearly indicated that there was no performance deficiency for the reasons stated above. Unlike the River Bend example, for Pilgrim there was no performance deficiency, therefore, there was no increase in the risk of core damage and the issue was not assigned a risk significance. We are evaluating the need to correct and reissue the report for the record in accordance with the guidance provided in Inspection Manual Chapter 0612, Section 15.04, Amending Inspection Reports.

We hope that this addresses your concerns regarding the implementation of the NRC's significance determination process as it relates to control room ventilation concerns recently identified at the River Bend and Pilgrim stations. However, if you have any additional questions or concerns regarding these issues please feel free to contact me at 610-337-5373.

Sincerely,

/RA/

Leonard M. Cline, Senior Project Engineer
Reactor Projects Branch 5
Division of Reactor Projects

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