**From**: Dave Lochbaum [mailto:DLochbaum@ucsusa.org]
**Sent**: Friday, March 18, 2016 01:00 PM
**To**: Dorman, Dan
**Cc**: Diane Turco <tturco@comcast.net>; Lampert, Mary <mary.lampert@comcast.net>; Screnci, Diane
**Subject**: [External_Sender] NRC 95003 inspection at Pilgrim and control room temperature

Hello Dan:

The recent 95003 Phase A inspection report issued by the NRC included discussion of a control room temperature issue.

As detailed in the attached letter, an inspection report issued less than two weeks earlier by NRC Region IV also included a discussion of a control room temperature issue at another Entergy nuclear plant.

It seems to UCS that two very similar control room temperature issues were handled very differently by the NRC. By now, I understand that the NRC is never, ever wrong. So, is Region IV righter about the control room temperature problem or is Region I righter?

Thanks,
Dave Lochbaum
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March 18, 2016

Daniel H. Dorman
Regional Administrator
U.S. Nuclear Regulatory Commission
2100 Renaissance Blvd, Suite 100
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Dear Mr. Dorman:

Diane Turco of Cape Downwinders and Mary Lampert of Pilgrim Watch each emailed me a copy of the NRC's report dated February 29, 2016 (ADAMS ML16060A018) following completion of Phase 'A' of Inspection Procedure 95003 asking for my review and comments.

In a subsection titled "Review of Long-Standing Open Correction Actions," the report indicated that corrective action report CR-PNP-2008-02638 covered an analysis showing that the control room temperature would increase to 114°F if the normal heating, ventilation and air conditioning was lost. The report stated that Entergy developed a modification that would provided an augmented cooling system to mitigate the temperature rise, but that the modification's installation was deferred multiple times before being canceled outright in 2015.

The report stated that the NRC evaluated the issue using Inspection Manual Chapter 0612 and determined the issue to be monitor, noting that "there are no current licensing or design basis documents that establish control room temperature limits for operator habitability."I call your attention to two documents that seem to contradict this NRC conclusion.

First, less than weeks prior to your issuing the 95003 inspection report on Pilgrim, the NRC issued the report (ADAMS ML16047A268) on its special inspection of a March 2015 event involving the control building chilled water system at River Bend, also owned and operated by Entergy. Attachment 3 provided a detailed risk assessment conducted by the NRC for the control room ventilation problem per Inspection Manual Chapter 0612 that determined it was more than minor (preliminary White). That detailed NRC risk assessment "concluded that operators would successfully and safety shut down and maintain stable shutdown of the reactor in 67 to 97 percent of these cases despite the adverse effects on equipment and operators" caused by elevated control room temperatures of up to 120°F. That detailed NRC risk assessment considered the impact of elevated control room temperature on equipment (including how it would affect current licensing and design bases responses to Station Blackout, 10 CFR 50.63, and environmental qualifications, 10 CFR 50.49) and human performance. That detailed NRC risk assessment cited Revision 10 of Entergy procedure EN-IS-108, "Working in Hot Environments." That detailed NRC risk assessment assumed that control room operators would have a "Low" work demand as defined in EN-IS-108 that yielded the following maximum stay times in the warm control room:

| Wet Bulb Globe Temperature | Maximum Stay Time (minutes) |
|---|---|
| 118-120°F | 20 |
| 114-116°F | 25 |
| 112°F | 30 |
| 110°F | 35 |
| 108°F | 45 |
| 106°F | 50 |
| 104°F | 60 |

That detailed NRC risk assessment concluded "that is was likely operators would be affected and not fully realize their degraded condition." That detailed NRC risk assessment concluded that the adverse impact on equipment and control room operators would increase the core damage risk equating to a White finding.

Second, Entergy cited procedure EN-IS-108 in the Overall Integrated Plan for Pilgrim it submitted February 28, 2013 (ADAMS ML13063A063) to the NRC in response to the NRC's March 12, 2012, post-Fukushima order. Procedure EN-IS-108 was cited as a reference for the control room accessibility section of the plan. Thus, EN-IS-108 is a corporate procedure applicable to Pilgrim and not a River Bend-specific procedure.

Thus, contrary to the conclusion stated in the Pilgrim 95003 inspection report, control room temperatures of up to 114°F would (a) seem to be more than minor based on the detailed NRC risk assessment of a very similar control room temperature condition at River Bend, and (b) seem to violate the current licensing and design bases requirements by not conforming with the human factors provisions in EN-IS-108. To conform with the human factors provisions of EN-IS-108 for a 114°F temperature in the Pilgrim main control room, operators would have to be replaced every 25 to 30 minutes to avoid unrecognized human performance impairment.

The NRC seems to have applied radically different answer keys when assessing very similar control room elevated temperature situation at Entergy's River Bend and Pilgrim nuclear plants. If there's a good reason, or even a bad one, for such disparate regulatory oversight, I would appreciate hearing it.

Sincerely,

David Lochbaum
Director, Nuclear Safety Project