From: William Raymond
To: lampert
Date: 8/12/05 4:52PM
Subject: Re: Regarding Event Number 41799 EMERGENCY DIESEL GENERATORS INOPERABLE DUE TO HIGH AMBIENT TEMPERATURE.

Mary,

This replies to your emails dated June 29 and July 1 regarding NRC Event Notification 41799 for Pilgrim Station. As you know, Pilgrim operators declared the plant emergency diesel generators (EDGs) inoperable for a brief period on June 26 when ambient temperature went above 95 degrees F (95F), a limit identified in plant procedures. As you may know, Entergy contacted the NRC on August 12 to retract the June 26 report after further review determined the EDGs remained operable. The NRC reviewed this issue to understand the reasons for the June 26 report and the bases for Entergy's determination that the EDGs remained capable of supplying power in the event that offsite power was lost.

The report on June 26 was made based on temperature data that was higher than the actual conditions at the diesels. As indicated in your July 1 email, weather conditions can vary locally. The June 26 report was made based on temperatures read at the station meteorological tower at a location (elevation) much higher than the diesels and farther inland from the bay. Temperatures near grade level at the diesel building intake, which were more representative of the air cooling the diesels, were lower by several degrees than reported at the meteorological tower. Subsequent review showed that the ambient temperatures at the diesels remained below the procedure limit. Additionally, the June 26 report was made based on temperatures that were not engine operability limits. The procedure limits were conservative relative to the actual temperatures that impact diesel operability. Plant design information shows the EDGs are operable at temperatures above that which occurred on June 26.

The plant electrical distribution system is described in Section 8 of the Final Safety Analysis Report (FSAR) and has redundant sources of power. The preferred electrical power is supplied from offsite sources, which includes two independent lines from the 345KV system and a third line from the 23 KV system. Should the offsite supplies become unavailable, either one of the two EDGs could provide adequate power to cool the reactor. Should both EDGs become unavailable, the station blackout diesel generator (SBODG) could provide adequate power to cool the reactor. As described in FSAR Section 2.3, the extreme maximum temperature for Plymouth is 102F, which is the highest temperature on record and was recorded in 1949 (source: the Weather Channel). Plant design information shows the EDGs are operable at a temperature of 102F, and the SBODG is designed to operate at ambient conditions above the site extreme maximum temperature. Finally, should the electrical systems not be operable as required by the plant technical specifications, Entergy would be required to shut down the plant.

In summary, the EDGs have been operable for the ambient conditions experienced at the site, and margins exist between the EDG operability limits and the site average high temperature conditions. Further, the EDGs would be operable for extreme ambient temperatures that could occur very infrequently.

I trust this is responsive to your request. Please accept my apology for this belated response and do not hesitate to contact me should you have any further questions.

Sincerely,
Bill

>>> "lampert" <lampert@adelphia.net> 06/29/05 2:39 PM >>>
June 29, 2005

Bill Raymond

NRC Resident Inspector, Pilgrim NPS

Bill:

Regarding Event Number 41799 EMERGENCY DIESEL GENERATORS INOPERABLE DUE TO HIGH AMBIENT TEMPERATURE.

The report stated that, “EDGs were declared inoperable due to indicated outside air temperature exceeding the established operability limit of 95F for two short periods of time.”

We understand that nuclear reactors need electricity to operate their safety systems. If offsite power loss occurs at the same time that temperatures exceed 95 then there is no power and we are in trouble. I hope a terrorist would not put two and two together. And, I hope further that very hot temperatures, above 95 degrees, do not result in overloading the grid, a black-out and EDG malfunctioning.

Hence I have the following questions and am asking them as Chair of the Town of Duxbury’s Nuclear Advisory Committee.

1. Over the past 10 years, how many days have exceeded 95 degrees? Please provide the dates.

2. Due to projected climate change and its impact on local temperatures, how many days does the NRC project per year to exceed 95 degrees? When were these projections made?

3. How long has the Licensee been aware that EDGs are inoperable due to high ambient temperature?
4. How long has the NRC been aware that EDGs are inoperable due to high ambient temperature?

5. Have EDGs been tested to determine if inoperable due to low ambient temperature?

If Yes

1.. When were the tests conducted?
2.. What is the low ambient temperature at which EDGs become inoperable?
3.. Over the past 10 years, how many days have exceeded that low ambient temperature? Please provide the dates.
4.. Due to projected climate change and its impact on local temperatures, how many days does the NRC project per year to exceed that low ambient temperature? When were these projections made?

6.. What is the backup put in place post 6/26/05 to assure power will be available in the event of offsite power loss?
Thank-you for your prompt attention; and, Bill I do appreciate that you try to do a very good job.

Mary Lampert

148 Washington Street, Duxbury 02332

Tel 781-934-0389

Event Number: 41799

Power Reactor Facility: PILGRIM
Region: 1 State: MA
Notification Date: 06/26/2005
Notification Time: 15:30 [ET]
Event Date: 06/26/2005
Event Time: 10:55 [EDT]
Last Update Date: 06/26/2005
Emergency Class: NON EMERGENCY

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
1	N	Y	100	Power Operation	100	Power Operation

Event Text

EMERGENCY DIESEL GENERATORS INOPERABLE DUE TO HIGH AMBIENT TEMPERATURE

"The report is being made in accordance with 10 CFR 50.72(b)(3) due to both Emergency Diesel Generators (EDGs) being declared inoperable.
[This is a 24-hour LCO.] The EDGs were declared inoperable due to indicated outside air temperature exceeding the established operability limit of 95F for two short periods of time. Indicated outside air temperature went above 95F during the following time frames: 10:55 to 11:00 and 12:15 to 12:20. Indicated outside air temperature subsequently decreased to less than 95F following these spikes. Both EDGs are currently operable. Outside ambient temperatures re continuing to be monitored. Offsite power is available.

"Further evaluation of this event is ongoing." The licensee notified the NRC Resident Inspector.

CC: Cliff Anderson

Mail Envelope Properties
(42FD0C08.5E5 : 8 : 55812)

Subject: Re: Regarding Event Number 41799 EMERGENCY DIESEL GENERATORS INOPERABLE DUE TO HIGH AMBIENT TEMPERATURE.
Creation Date: 8/12/05 4:52PM
From: William Raymond

Created By: WJR@nrc.gov

Recipients
adelphia.net
lampert (lampert)

nrc.gov
kp1_po.KP_DO
CJA CC (Cliff Anderson)

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Expiration Date:	None
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