



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

February 18, 2016

Mr. William Maurer
140 Gifford Street
Falmouth, MA 02540

Dear Mr. Maurer:

Thank you for your inquiry regarding the corrective actions taken at the Pilgrim nuclear power plant to address the Loss-of-Offsite-Power (LOOP) events of recent years. We appreciate your concerns.

To mitigate the potential for a repeat of previous winter storm events at Pilgrim, the plant has revised procedures to direct operators to place the plant in a safe condition based on impending and in-progress weather conditions. The revisions direct operators to take action based on criteria that considers information provided by National Weather Service forecasts and available through the plant's meteorological towers when the weather event is in progress. The information used includes: winter storm and blizzard watches and warnings, forecasted and actual sustained wind speed and direction, and forecasted and actual snowfall rates.

The actions directed by the procedure based on these criteria include plant shutdown and cooldown in the most severe cases. Other actions include plant walkdowns, pre-emptive power reductions, the topping off of diesel fuel tanks, manually starting and loading emergency diesel generators and staging additional personnel and emergency response equipment. For the most severe cases, like winter storm Juno, the intent of the directed action is to reduce the risk of core damage due to a loss of offsite power by reducing the plant's heat load before the loss of offsite power occurs. Therefore, when weather conditions indicate that the probability of loss of offsite power is high based on the procedure's specified criteria, the procedure changes now direct shutting the plant down, and immediately placing the shutdown cooling system in service to cool down to less than 200 degrees Fahrenheit. Cooling the plant down to less than 200 degrees significantly reduces the cooling demand on the plant's safety equipment, and significantly increases the amount of time that the plant can remain safe without off-site power.

Since winter storm Juno last year, the plant has also implemented a temporary modification to increase the reliability of switchyard components during severe winter weather. The modification was intended to minimize the potential for flashover events like the one that occurred during Juno. The modification provides two portable generators and power packs that supply power to nine heat lamps positioned around key breakers and transformers in the switchyard. These heat lamps are used to warm the bushings associated with this equipment, which prevents snow packing and ice accumulation on the bushings that led to flashover during Juno. Although there is no prior history of use for this type of equipment at other nuclear power plants in this country, there is operating history from at least one fossil plant in western Pennsylvania that indicates some success with this method. In addition, the performance of the

Mr. William Maurer

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lamps during a recent winter storm indicates that they are capable of reducing the likelihood of snow packing and ice accumulation on the bushings.

None of the specific actions completed by Entergy to address these concerns, including the new shutdown criteria, were directed by NRC requirements. However, in accordance with NRC regulations, Entergy was required to take corrective action to address the problems that occurred during Juno in 2015. The NRC reviewed and inspected Entergy's switchyard modifications and operating procedure changes and determined that they adequately addressed the concerns identified during Juno. The actions taken reduce the probability of a loss of offsite power and significantly reduce the risk of core damage if a loss of offsite power occurs. This combined with the fact that the plant is designed to cope with the duration of a typical station blackout event for the associated geographic area ensure that the plant remains safe for these types of events. As part of the NRC's preparations for a recent winter storm, the agency confirmed that Entergy's implementation of the new procedure requirements was adequate. In addition, there were no operating issues as a result of the storm.

Sincerely,

/RA/ Original Signed by Neil Sheehan

Neil Sheehan
NRC Public Affairs Officer
Region I

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Sincerely,

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Neil Sheehan
 NRC Public Affairs Officer
 Region I

DOCUMENT NAME: G:\ORA\PUBAFF\MaurerPilgrimResponse 2-2016.docx

Non-Public Designation Category: MD 3.4 Non-Public _____ (A.3 - A.7 or B.1)

ADAMS ACCESSION NUMBER: [ML16050A039](#)

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/PAO				
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DATE	02/18/16				

*see previous concurrence page

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