



**BOSTON EDISON**

Pilgrim Nuclear Power Station  
Rocky Hill Road  
Plymouth, Massachusetts 02360

**E. T. Boulette, PhD**  
Senior Vice President -- Nuclear

February 16, 1994

BEC0 94-016

Mr. Ted Landry  
Environmental Protection Agency  
Waste Water Compliance Section  
JFK Federal Bldg.  
Room 2113 WMM  
Boston, MA 02203

Dear Mr. Landry:

This letter confirms your verbal approval to utilize a modified firewater system (untreated Plymouth town water) at Pilgrim Station for sea foam suppression and supplemental screenwash flow during storm periods. During storms, sea foam from the intake canal is transported by high winds to the switchyard. The foam plates out, on the switchyard insulators which increases the potential for arc-over and plant shutdown. At the same time, large amounts of seaweed travel into the intake canal. This seaweed eventually ends up on the travelling screen baskets. As the influx of seaweed increases, the potential for debris carry over on the travelling screens occurs. This carry over leads to fouling of the condenser tubesheets, lowering condenser vacuum and poor plant performance. As this condition continues to degrade, PNPS initiates a power reduction in order to backwash the condenser tubesheets. Supplemental screenwash flow is needed to address these issues.

The sea foam suppression system will have four PVC headers mounted on steel frames that can be moved up and down in the intake structure stop log guides with the tides. Each header will have spray nozzles mounted on it and up to 300 gpm of firewater will be ejected to suppress foam on the surface waters in front of the PNPS intake structure. The firewater will be mixed with the PNPS water flow of at least one circulating water pump delivering 155,000 gpm.

Supplemental screenwash flow will be achieved by increasing screenwash system capacity from 1400 gpm to 2200 gpm and the addition of 2 high pressure spray (100 psi) headers; one with saltwater flow, and the other supplied by the station firewater system. The firewater header will be used only during storm events at a flow of approximately 600 gpm which will be diluted by the 2200 gpm dechlorinated, saltwater flow of the other spray headers. No environmental impacts are anticipated from either one of these firewater system usages. The average and maximum screenwash flows at NPDES Permit discharge point #003 will increase from approximately 2.1 MGD (million gallons per day) to 4.1 MGD, which will require a Permit modification upon its renewal. Your approval of this necessary increase in screenwash discharge flow is also requested.


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Mr. Ted Landry  
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We would appreciate your written approval of our supplemental use of the PNPS firewater system as described above. Please contact Mr. Robert D. Anderson at (508) 830-7935 should you need further information regarding these matters.

Sincerely,

  
E. T. Boulette  
Senior Vice President-Nuclear

ETB/RDA/FIREWTR

cc: Mr. Paul Hogan  
Mass. Department of Environmental Protection  
Division of Water Pollution Control  
Regulatory Branch - 7th Floor  
One Winter Street  
Boston, Mass 02108

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Region I  
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King of Prussia, PA 19406

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Senior Resident Inspector  
Pilgrim Nuclear Power Station