



## State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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LISA P. JACKSON  
Commissioner

January 17, 2007

Dr. Pao-Tsin Kuo  
Acting Director Division of License Renewal  
U. S. Nuclear Regulatory Commission  
One White Flint North Mail Stop O-11 F1  
11555 Rockville Pike  
Rockville, MD 20852

Subject: Oyster Creek Drywell Corrosion - Expert Review

Dear Dr. Kuo:

During the recently concluded Oyster Creek refueling outage, AmerGen Energy Corporation, LLC, an Exelon company (AmerGen), as part of its license renewal process, performed extensive inspections of the drywell. During this time, NRC inspectors from Region 1 were on site conducting an inspection of aging management program implementation related to AmerGen's license renewal application. The State of New Jersey Bureau of Nuclear Engineering (BNE) participated in the NRC inspection, as an observer, as specified by the current Memo of Understanding (MOU) between the Department of Environmental Protection (DEP) and the NRC. As required by this MOU, the BNE is restricted from making information relating to an ongoing NRC inspection public. The NRC scheduled the exit meeting for this inspection on January 11, 2007, but it was postponed, making it awkward for the BNE to raise issues discovered during the inspection. Therefore, this letter will be very general.

I am writing to inform you of the BNE's intention to hire an independent expert in the field of corrosion mechanisms. This expert will review and comment on the technical report prepared by AmerGen, which represents its bases for concluding that Oyster Creek could restart from the outage and continue to operate for the extended period of license renewal.

The bases for our concerns is that during the outage inspections, water was unexpectedly discovered inside the drywell resulting in the saturation of the lower portion of the metal drywell shell which is embedded under the concrete floor located at the bottom of the drywell. The water was initially removed but reappeared, indicating a saturated condition. Also found during this inspection was a glass object, described by AmerGen and NRC as a soda bottle, partially embedded in the drywell concrete floor. Apparently the object was there since original construction. This discovery of the foreign object raised the issue of other possible voids in the

concrete floor which could exacerbate corrosion of the drywell shell. NRC Information Notice 2004-09 identifies the consequences of similar concerns at other plants.

I personally participated along with BNE, NRC and Oyster Creek management and staff in daily briefings during the outage as these events unfolded. AmerGen prepared a detailed technical report discussing the ultrasonic thickness measurements and water intrusion finding as its bases justifying restart of Oyster Creek from the refueling outage. This technical report was finalized only a day or two prior to restart. The BNE has completed its review of the report and has concerns over the bases on which AmerGen concluded that the water inside the drywell would not result in corrosion of the concrete embedded portions of the drywell shell over the extended period of operation if license renewal is granted. BNE has decided to solicit the assistance of an outside expert in the field of corrosion to review AmerGen's technical bases for this conclusion. DEP plans to bring the findings of this outside review to NRC's attention for consideration in license renewal.

Should you have any questions or need additional information, please contact me directly at (609) 633-7964 or Mr. Kent Tosch, Manager of the Bureau of Nuclear Engineering, at (609) 984-7701.

Sincerely yours,



Will Lipoti, Ph.D.  
Director

- c: Graham B. Wallis, Chairman, ACRS
- Richard Lopriori, Exelon
- Samuel Collins, Regional Administrator, NRC Region 1
- A. Randolph Blough, Director, Division of Reactor Safety, NRC Region 1
- Richard Conte, Chief, Engineering Branch, NRC Region 1
- Nancy MacNamara, State Liaison Officer