

October 10, 2000

Mr. Ronald DeGregorio  
Vice President Oyster Creek  
AmerGen Energy Company, LLC  
P. O. Box 388  
Forked River, NJ 08731

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION ON THE IMPLEMENTATION OF  
ALTERNATE SOURCE TERM FOR CONTROL ROOM HABITABILITY  
(TAC NO. MA3465)

Dear Mr. DeGregorio:

By your latest letter dated April 13, 2000, regarding the above subject, you requested that the U.S. Nuclear Regulatory Commission (NRC) staff proceed with their review. Also, on July 28, 2000, we held a meeting to discuss this subject further.

We have reviewed the information and earlier submittals you have provided and we need additional information to complete its review. Recognizing the complexity of these questions, we request that, within 15 days, you write to us with your schedule for responding to the enclosed request for additional information.

Finally, we note that to implement an alternate source term, 10 CFR 50.67 requires that a licensee apply for a license amendment under 10 CFR 50.90. Your submittals do not seem to fulfill that requirement.

If you have any questions regarding this correspondence, please contact me at (301) 415-1261.

Sincerely,

*/RA/*

Helen N. Pastis, Sr. Project Manager, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-219

Enclosure: Request for Additional Information

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION  
ALTERNATE SOURCE TERM IMPLEMENTATION FOR CONTROL ROOM HABITABILITY  
OYSTER CREEK NUCLEAR GENERATING STATION (OCNGS)  
FACILITY OPERATING LICENSE NO. DPR-16  
DOCKET NO. 50-219

1. Have all postulated design-basis accidents (DBA) (as found in the OCNGS updated final safety analysis report (UFSAR)) been evaluated to ensure that the bounding accident has been used for the purpose of determining control room habitability?
2. Since the date of the submittal, NRC staff issued, in July 2000, Regulatory Guide (RG) 1.183, "Alternative Radiological Source Terms for Evaluating Design-Basis Accidents at Nuclear Power Reactors." This regulatory guide provides, among other things, guidance on the assumptions and methods to be used in the DBA radiological consequence analyses implementing an alternative source term in conjunction with new dose acceptance criteria. Although your submittal does not need to follow the guidance of RG 1.183, to help expedite staff review, please identify and justify any discrepancies with guidance in the main body and Appendix A of the regulatory guide, as pertaining to the Boiling-Water Reactor Loss-of-Coolant Accident (LOCA).
3. Provide a copy of the dose calculations, complete with major parameters and assumptions used in the calculations.
4. What assumptions from NUREG-1465 were used in the dose analyses? What assumptions from NUREG-1465 were not used?
5. How was the core fission product inventory determined? Did you use an appropriate isotope generation and depletion computer code such as ORIGEN? Please provide the core inventory, if not currently listed in the OCNGS UFSAR.
6. Provide the sequence of events and the MAAP4 model in enough detail to describe how the core steaming rates were determined for use in the radiological consequences analysis and credit for suppression pool scrubbing.
7. State how the STARNAUA model is used for determining aerosol removal rates by the drywell and torus sprays. Provide the calculated spray removal coefficients and the actual spray coverages. You stated in your July 28, 2000, presentation to the staff on Oyster Creek control room habitability that the MAAP4 analysis determines the frequency of spray operations. Explain in detail.

Enclosure

8. During your presentation to the NRC staff on the Oyster Creek control room habitability on July 28, 2000, you presented the aerosol deposition mechanisms in steam lines.
  - Provide detailed technical justifications and references used for estimating aerosol impaction (decontamination factor of 2) at the inboard main steam isolation valve (MSIV) in the steam line with one open MSIV; and
  - Describe in detail the STARNAUA model used for estimating aerosol sedimentation between the other steam line's closed MSIVs and provide the aerosol removal coefficients calculated with STARNAUA.
9. For the postulated core meltdown accident scenario that is the basis for the calculated radiological releases, describe the assumed pathways and timing (i.e., sequence of events) of the release and transport of radiological material from the reactor core to points outside the containment during the 2 hour release period. Describe the methods used to arrive at the results, including key assumptions and any computerized models used to analyze the transport of radioactive material.
10. On page 12 of the submittal, you assumed that the drywell spray test line leaks at the same rate as the other bypass pathways to the turbine building. Clarify if this line has a leak rate of 2 standard cubic feet per hour.
11. Provide, on the docket, an electronic copy of the meteorological data used to calculate the X/Q values. Data should be provided either in the format specified in Appendix A to Section 2.7, "Meteorology and Air Quality," of draft NUREG-1555, "Environmental Standard Review Plan," or in the ARCON96 format described in NUREG/CR-6331, "Atmospheric Relative Concentrations in Building Wakes." Data may be provided in a compressed form, but a method to decompress the data should be provided. If the ARCON96 format is selected when providing data, the atmospheric stability categorization should be based on the delta-T methodology. Any missing data should be designated by completely filling the field for that parameter with 9's.