August 11, 2006

LICENSEE: AmerGen Energy Company, LLC

FACILITY: Oyster Creek Nuclear Generating Station

SUBJECT: SUMMARY OF A TELEPHONE CONFERENCE CALL HELD ON MARCH 8, 2006, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND AMERGEN ENERGY COMPANY, LLC, CONCERNING DRAFT REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE OYSTER CREEK NUCLEAR GENERATING STATION, LICENSE RENEWAL APPLICATION

The U.S. Nuclear Regulatory Commission staff (NRC or the staff), and representatives of AmerGen Energy Company, LLC (AmerGen), held a telephone conference call on March 8, 2006, to discuss and clarify the staff's draft request for additional information (D-RAI) concerning the Oyster Creek Nuclear Generating Station license renewal application (LRA). The conference call was useful in clarifying the intent of the staff's D-RAI.

Enclosure 1 provides a listing of the conference call participants. Enclosure 2 contains a listing of the D-RAI discussed with the applicant, including a brief description on the status of the items.

The applicant had an opportunity to comment on this summary.

/RA/

Donnie J. Ashley, Project Manager
License Renewal Branch A
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-219

Enclosures:
As stated

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/RA/

Donnie J. Ashley, Project Manager
License Renewal Branch A
Division of License Renewal
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NAME	DAshley	YEdmonds	LLund
DATE	8/ 08 /06	7/ 31 /06	8/ 11 /06

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Oyster Creek Nuclear Generating Station

cc:

Site Vice President - Oyster Creek
Nuclear Generating Station
AmerGen Energy Company, LLC
P.O. Box 388
Forked River, NJ 08731

Senior Vice President of
Operations
AmerGen Energy Company, LLC
200 Exelon Way, KSA 3-N
Kennett Square, PA 19348

Kathryn M. Sutton, Esquire
Morgan, Lewis, & Bockius LLP
1111 Pennsylvania Avenue, NW
Washington, DC 20004

Kent Tosch, Chief
New Jersey Department of
Environmental Protection
Bureau of Nuclear Engineering
CN 415
Trenton, NJ 08625

Vice President - Licensing and
Regulatory Affairs
AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

Mayor of Lacey Township
818 West Lacey Road
Forked River, NJ 08731

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 445
Forked River, NJ 08731

Director - Licensing and Regulatory Affairs
AmerGen Energy Company, LLC
Correspondence Control
P.O. Box 160
Kennett Square, PA 19348

Manager Licensing - Oyster Creek
Exelon Generation Company, LLC
Correspondence Control
P.O. Box 160
Kennett Square, PA 19348

Regulatory Assurance Manager
Oyster Creek
AmerGen Energy Company, LLC
P.O. Box 388
Forked River, NJ 08731

Assistant General Counsel
AmerGen Energy Company, LLC
200 Exelon Way
Kennett Square, PA 19348

Ron Bellamy, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

Correspondence Control Desk
AmerGen Energy Company, LLC
200 Exelon Way, KSA 1-–1
Kennett Square, PA 19348

Oyster Creek Nuclear Generating Station
Plant Manager
AmerGen Energy Company, LLC
P.O. Box 388
Forked River, NJ 08731

License Renewal Manager
Exelon Generation Company, LLC
200 Exelon Way, Suite 230
Kennett Square, PA 19348

Oyster Creek Nuclear Generating Station

cc:

Mr. James Ross
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006-3708

Mr. Michael P. Gallagher
Vice President License Renewal
Exelon Generation Company, LLC
200 Exelon Way, Suite 230
Kennett Square, PA 19348

Mr. Christopher M. Crane
President and Chief Nuclear Officer
AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Note to: AmerGen Energy Company, LLC, Facility: Oyster Creek Nuclear Generating Station from Donnie Ashley dated August 11, 2006.

SUBJECT: SUMMARY OF A TELEPHONE CONFERENCE CALL HELD ON MARCH 8, 2006, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND AMERGEN ENERGY COMPANY, LLC, CONCERNING DRAFT REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE OYSTER CREEK NUCLEAR GENERATING STATION, LICENSE RENEWAL APPLICATION

HARD COPY
DLR R/F

E-MAIL:
JFair
RWeisman
AMurphy
RPettis
GGalletti
DShum
GBagchi
SSmith (srs3)
SDuraiswamy
YL (Renee) Li
RidsNrrDlr
RidsNrrDlrRlra
RidsNrrDlrRlrb
RidsNrrDe
RidsNrrDci
RidsNrreEemb
RidsNrrDeEeeb
RidsNrrDeEqva
RidsNrrDss
RidsNrrDnrl
RidsOgcMailCenter
RidsNrrAdes
DLR Staff

CHolden
RLaufer
GMiller
RBellamy, RI
RCureton, RI
JLilliendahl, RI
MModes, RI
MSykes, RI
MYoung
RidsOpaMail

LIST OF PARTICIPANTS FOR TELEPHONE CONFERENCE CALL TO DISCUSS THE OYSTER CREEK NUCLEAR GENERATING STATION LICENSE RENEWAL APPLICATION

March 8, 2006

Participants	**Affiliations**
Donnie Ashley	U.S. Nuclear Regulatory Commission (NRC)
Jai Rajan	NRC
Andy DuBouchet	NRC
Rich McNally	NRC
Don Warfel	AmerGen Energy Company, LLC (AmerGen)
George Beck	AmerGen
Kevin Muggleston	AmerGen
Charlie Micklo	AmerGen

ENCLOSURE 1

DRAFT REQUESTS FOR ADDITIONAL INFORMATION (D-RAI)
OYSTER CREEK NUCLEAR GENERATING STATION
LICENSE RENEWAL APPLICATION

March 8, 2006

The U.S. Nuclear Regulatory Commission staff (NRC or the staff) and representatives of AmerGen Energy Company, LLC (AmerGen), held a telephone conference call on March 8, 2006, to discuss and clarify the staff's draft request for additional information (D-RAI) concerning the Oyster Creek Nuclear Generating Station (OGNGS), license renewal application (LRA). The following D-RAIs were discussed during the telephone conference call.

D-RAI 3.2-1

In LRA Table 3.2.2.1.3 the applicant states that for stainless steel closure bolting in indoor air (external) environment there are no aging effects requiring management (AERM). The staff requests the applicant to provide the following information:

a. justification for excluding loss of preload and loss of closure integrity as aging mechanisms;

b. specific industry guidance for ventilation closure bolting relating to AERMs (for example, EPRI documents, published reports, operating experience etc.); and

c. sizes and locations of the bolting.

Discussion: The applicant understands the question and will provide a response.

D-RAI 3.2-2

In LRA Table 3.2.2.1.3 the applicant states that loss of material in a number of components is managed by the Periodic Inspection of Ventilation Systems (B.2.4) Aging Management Program. The staff requests the applicant to provide the specific tests and inspections, including frequency and methods of inspections, preventive actions, parameters monitored and inspected, detection of aging effects, acceptance criteria and operating experience in the applicant's aging management program (B.2.4) which relates to each of the following line items in the standby gas treatment system:

a. change of material properties and loss of material for elastomeric door seal in an outdoor air (external) environment (Identify the specific elastomeric material - for example, neoprene, natural rubber, chlorobutyl, etc.);

b. loss of material in aluminum duct work in an external soil environment;

c. change of material properties in elastomeric flexible connections in an outdoor air environment (Identify the specific elastomer);

d. loss of material in brass piping and fitting in an outdoor air (external) environment (Identify the specific brass composition);

e. loss of material in stainless steel flow elements, piping and fittings and thermowells in an outdoor air (external) environment;

f. loss of material in copper piping and fittings in an outdoor air (external) environment (Identify the specific copper composition); and

g. loss of material in brass valve bodies in an outdoor air environment (Identify the specific brass composition).

Discussion: The program basis document AMP-B.2.04 contained the specific information for Items a, c, e and g. The items will be removed and the question will be revised to read as follows.

In LRA Table 3.2.2.1.3 the applicant states that loss of material in a number of components is managed by the Periodic Inspection of Ventilation Systems (B.2.4) Aging Management Program (AMP). The staff requests the applicant to provide the specific tests and inspections including frequency and methods of inspections, preventive actions, parameters monitored and inspected, detection of aging effects, acceptance criteria and operating experience in the applicant's AMP (B.2.4) which relate to each of the following line items in the standby gas treatment system:

a. loss of material in aluminum duct work in an external soil environment;

b. loss of material in brass piping and fitting in an outdoor air (external) environment (Identify the specific brass composition); and

c. loss of material in copper piping and fittings in an outdoor air (external) environment (Identify the specific copper composition).

Discussion: The applicant understands the revised question and will provide a response.

D-RAI 3.2-3

In LRA Table 3.2.2.1.3 the applicant has identified no AERMs for plexiglass duct work in an internal and external indoor air environment. The staff requests the applicant to discuss its current maintenance practices for plexiglass in this environment as well as vendor recommendations in this regard. In addition, the staff requests the applicant to identify the specific composition of this plexiglass material and its operating experience at the OCNGS.

Discussion: The applicant understands the question and will provide a response.

D-RAI 3.4-1

In Table 3.4.2.1.2 the applicant states that loss of material of buried aluminum piping and fittings in an external soil environment will be managed by the Buried Piping Inspection Program (B.126). The staff requests the applicant to provide the following information regarding the management of the aging effects:

a. specific alloy composition of the piping and fittings, and the basis for identifying the aging effect in the specific external soil environment;

b. identify the type of loss of material which is expected to occur (pitting, cracking, general corrosion etc.);

c. operating experience with this material in this environment; and

d. type of external coatings and wrappings which will be used and the preventive measures to keep them in place.

Discussion: Based on discussions, the reviewer withdrew the (a) section of the question referenced above. Revise the question to read as follows:

D-RAI 3.4-1

In Table 3.4.2.1.2 the applicant states that loss of material of buried aluminum piping and fittings in an external soil environment will be managed by the Buried Piping Inspection Program (B.126). The staff requests the applicant to provide the following information regarding the management of the aging effects:

a. identify the type of loss of material which is expected to occur (pitting, cracking, general corrosion etc.);

b. operating experience with this material in this environment; and

c. type of external coatings and wrappings which will be used and the preventive.

Discussion: The applicant understands the revised question and will provide a response.

D-RAI 3.4-2

In Table 3.4.2.1.2 of the LRA the applicant states that loss of material of aluminum tanks in an air (internal and external) and external soil environments will be managed by the Aboveground Outdoor Tanks Program (B1.21). The staff requests the applicant to provide the following information relative to the tanks:

a. specific alloy composition of the tank material;

b. description of the tank supports;

c. aging management of the sealant or coatings on the tank bottom, if any;

d. operating experience with the tanks;

e. function of the tanks and any other material in contact with its internal and external surfaces, such as expansion joints, piping connections etc.; and

f. specific tests, wall thickness measurements and inspections which assure that the leak tightness of the tanks is maintained in the internal and external outdoor air and soil environments.

Discussion: Revise the question to read as follows:

In Table 3.4.2.1.2 of the LRA the applicant states that loss of material of aluminum tanks in an air (internal and external) and external soil environments will be managed by the Aboveground Outdoor Tanks Program (B1.21). The staff requests the applicant to provide the following information relative to the tanks:

a. specific alloy composition of the tank material;

b. description of the tank supports;

c. aging management of the sealant or coatings on the tank bottom, if any;

d. operating experience with the tanks;

e. purpose of the tanks (including a description of the services performed) and any other material in contact with its internal and external surfaces, such as expansion joints, piping connections etc.; and

f. specific tests, wall thickness measurements and inspections which assure that the leak tightness of the tanks is maintained in the internal and external outdoor air and soil environments.

Discussion: The applicant understands the revised question and will provide a response.

D-RAI 3.4-3

In LRA Table 3.4.2.1.2 the applicant states that loss of material in stainless steel tanks in internal and external outdoor air environments is managed by the Aboveground Outdoor Tanks Program (B.1.21). The staff requests the applicant to provide the following additional information:

a. description of the tanks including supports and other connecting piping;

b. specific tests and inspections (including wall thickness measurements) in the Aboveground Outdoor Tanks Program (B.1.21), which are performed relative to these tanks to assure structural integrity; and

c. operating history of these tanks.

Discussion: The applicant understands the question and will provide a response.

D-RAI 3.4-4

In LRA Table 3.4.2.1.3 the applicant states that carbon and low alloy steel piping and fittings in containment atmosphere (external) have no aging effects. According to the applicant, the aging effect in NUREG-1801 for this component, material and environment combination is not applicable (Note I). The applicant cites a previous staff evaluation in which the staff had concluded that loss of material is not an aging effect for carbon steel components in a containment nitrogen environment, because of negligible amounts of free oxygen (less than 4 percent by volume) during normal operation. The staff's concern is that due to leakage of moisture and presence of oxygen during plant shutdown, the potential for degradation of carbon steel components cannot be ruled out over an extended period of time. Therefore, there is a need for a one-time inspection prior to the period of extended operation, unless the applicant can provide additional assurance in support of its position (for example, monitored data from the Oyster Creek containment nitrogen environment to indicate that the free oxygen levels have been continuously maintained below threshold levels and would continue to be maintained during the period of extended operation). The staff requests the applicant to justify its position or alternately, commit to a one-time inspection of these components prior to the period of extended operation.

Discussion: The applicant understands the question and will provide a response.

D-RAI 3.4-5

In LRA Table 3.4.2.1.3 the applicant states that in carbon and low alloy steel piping and fittings in a treated water environment, no Aging Effects Requiring Management (AERMs) are applicable. The applicant cites Electric Power Research Institute (EPRI) Report, 'Mechanical Tools, Appendix A', to support its position that stress-corrosion cracking (SCC) and intergranular stress-corrosion cracking (IGSCC) are not applicable aging effects for carbon steel in a treated water environment. However, staff's review of the above-mentioned EPRI document indicates that while SCC and IGSCC are not applicable for carbon steel in a treated water environment, other aging effects are applicable. These are metal fatigue, general corrosion, galvanic corrosion, microbiologically induced corrosion (MIC) and erosion/FAC. The staff's concern is that due to inadvertent ingress of contaminants and other factors (such as stagnant locations where chemical treatment may not be effective), the potential for degradation over an extended period of time cannot be ruled out. Thus, there is a need for a one-time inspection of these components prior to the period of extended operation. The applicant requested to respond to the staff's concerns as discussed above and justify its position.

Discussion: Based on discussions and the inspection described in the license renewal application Table 3.4.2.1.3, the reviewer withdrew the question.

D-RAI 3.4-6

In LRA Table 3.4.2.1.3 the applicant states that for carbon and low alloy steel valve bodies, in external containment air and treated water environments, there are no AERMs. The staff's concerns discussed in RAIs 3.4-4 and 3.4-5 are also applicable to carbon and low alloy steel valve bodies. The staff requests the applicant to respond to the staff's concerns as discussed above and justify its position.

Discussion: This question will be renumbered and revised to remove reference to RAI 3.4-5 and be sent as a formal RAI. The applicant understands the revised question and will provide a response.

D-RAI 3.4-7

In LRA Table 3.4.2.1.4 the applicant states that there are no AERMs for the following main condenser subcomponents:

a. carbon and low alloy steel main condenser shell in indoor air (external) and steam (internal) environments;

b. titanium main condenser tubes in a raw salt water (internal) and steam (external) environment; and

c. aluminum/bronze tubesheet in a raw salt water (internal) and steam (external) environment.

The applicant further states that aging management of the main condenser is not based on analysis of materials, environments and aging effects. Condenser integrity required to perform the post accident intended function (holdup and plate out of MSIV leakage) is continuously confirmed by normal plant operation. Therefore, the applicant contends that no traditional aging management review or aging management is required. The staff requests the applicant to provide the following information relating to the main condenser at Oyster Creek or provide justification that this information does not apply.

a. Operational and maintenance history of the main condenser, summarizing the significant abnormal conditions or events which may have occurred in the past. This summary should include a brief discussion of the root cause determination and evaluation of these events, if available. The staff is particularly interested in events related to fouling, insulation failure, tube ruptures or major leaks, expansion joint failures, condenser air in-leakage and condenser tube microbiologically induced corrosion.

b. Discuss any concerns related to condenser capacity under power uprate conditions.

Discussion: This question will be renumbered and sent as a formal RAI. The applicant understands the question and will provide a response.

D-RAI 3.4-8

In LRA Table 3.4.2.1.6 the applicant states that for carbon and low alloy steel expansion joints, flow element and thermowells, in an internal and external containment atmosphere environment, there are no AERMs. As discussed in RAI 3.4-4 above, the staff considers a one-time inspection appropriate for these components prior to the period of extended operation. The staff requests the applicant to respond to the staff's above concerns as they relate to the Main Steam System and justify its position.

Discussion: This question will be renumbered and sent as a formal RAI. The applicant understands the question and will provide a response.

D-RAI 3.4-9

In LRA Table 3.4.2.1.6 the applicant states that for carbon and low alloy steel piping and fittings and valve bodies in internal and external containment air and internal treated water environments, the applicant has identified no AERMs. As discussed in RAIs 3.4-4 and 3.4-5 above, the staff considers a one-time inspection appropriate for these components prior to the period of extended operation. The staff requests the applicant to respond to the staff's concerns as they relate to the Main Steam System and justify its position.

Discussion: This question will be renumbered, revised to remove reference to RAI 3.4-5 and be sent as a formal RAI. The applicant understands the revised question and will provide a response.

D-RAI 4.7.1-1

The staff requests the applicant to discuss any major repairs, modifications or replacements done in the past which affected the original design basis of the reactor building, turbine and heater bay cranes at OCNGS. Also, identify any lifts at or in excess of the capacity of these cranes which have occurred in the past.

Discussion: The applicant understands the question and will provide a response.

D-RAI 4.7.1-2

The staff requests the applicant to discuss the operational history of the three cranes within the scope of license renewal.

Discussion: The applicant understands the question and will provide a response.

D-RAI B.2.1-1

The staff requests the applicant to discuss any aging mechanisms for the piping support materials in the containment air environment. In addition, provide the bases for identifying these aging mechanisms or identifying no aging mechanism for the environment/material combination.

Discussion: The applicant understands the question and will provide a response.

D-RAI B.2.1-2

It is stated in the LRA that flow tests are conducted with air rather than water. The staff's concern is that since the reaction forces on the supports and the spray nozzles are substantially less with air flow versus water flow, the periodic flow tests simply assure that there is no clogging of the spray nozzles, but do not test the structural integrity of the spray system under actual operating conditions. The staff is concerned that the piping supports and nozzles may not be able to withstand the forces exerted during accident conditions when water is turned on and potentially result in a failure of the spray system. The staff requests the applicant to provide justification to assure that the structural integrity of the system under accident conditions will be maintained during the period of extended operation.

Discussion: The applicant understands the question and will provide a response.

D-RAI B.2.4-1

In LRA Section B.2.4 of Appendix B, the applicant states that existing ventilation system periodic preventive maintenance activities will be enhanced as follows:

> "Instrument piping and valves, restricting orifices and flow elements, thermowells and Standby Gas Treatment System ducts exposed to soil will be added to the scope of the plant implementation documents."

The staff requests the applicant to provide a listing of the line items in the AMR Tables of the LRA which would be within the scope of this AMP, and it would be credited.

Discussion: The applicant understands the question and will provide a response.

D-RAI B.2.4-2

In LRA Section B.2.4 of Appendix B, the applicant states that existing ventilation system periodic preventive maintenance activities will be enhanced as follows:

> "Specific guidance for identification of applicable aging effects will be added to preventive maintenance documents."

The information in the LRA suggests that the identification of the aging effects is currently based on qualitative acceptance criteria. The staff requests the applicant to discuss the enhancements in more detail to indicate whether or not any aging effects would be identified on the basis of quantitative acceptance criteria such as, durometer reading limits for identification of aging effects in elastomers etc.

Discussion: The applicant understands the question and will provide a response.