



**C. N. (Bud) Swenson**  
Site Vice President

Telephone 609.971.2300  
www.exeloncorp.com  
bud.swenson@amergenenergy.com

An Exelon Company

Oyster Creek Generating Station  
US Route 9 South  
P.O. Box 388  
Forked River, NJ 08731

10 CFR 50  
10 CFR 51  
10 CFR 54

2130-05-20238

December 9, 2005

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

Oyster Creek Generating Station  
Facility Operating License No. DPR-16  
NRC Docket No. 50-219

**Subject:** Additional Commitments Associated with Application for Renewed Operating License – Oyster Creek Generating Station

**Reference:** Letter from C. N. Swenson (AmerGen Energy Company, LLC) to USNRC “Application for Renewed Operating License” dated July 22, 2005

This letter formalizes AmerGen’s commitment to perform two specific activities that are related to renewal of the Oyster Creek Generating Station operating license. AmerGen previously discussed its intent to perform these activities with the NRC Audit team in October 2005, during the Aging Management Program Audit at the Oyster Creek site. The two activities discussed below will be implemented prior to the proposed period of extended operation.

First, AmerGen will revise the Oyster Creek UFSAR to incorporate an updated metal fatigue analysis limit for reactor coolant pressure boundary components, consistent with the current requirements of 10CFR 50.55a for operating plants, into the Oyster Creek current licensing basis. Specifically, this revision will change the cumulative usage factor from 0.8 to 1.0 in accordance with ASME Section XI, Appendix L.

Second, AmerGen will perform one-time inspection of the drywell shell in the sand bed region, conducting ultrasonic testing (UT) thickness measurements. These one-time UT measurements will be taken from inside the drywell at locations tested in the 1990s such that the new measurements can be compared with the earlier testing results. The last UT measurements in the sand bed region, taken during the 16th Refueling Outage in 1996, along with the UT measurements taken in 1994, confirmed that the surface coating applied to the liner in that region in 1992 had arrested corrosion that was previously occurring. Based upon our discussions with the Staff, AmerGen will take these additional measurements to provide a high degree of assurance that the surface coating applied to the liner has arrested corrosion that was previously occurring there. This will confirm that periodic inspections of the coating condition, already planned as part of the aging management program for the containment, will ensure the long-term integrity of the drywell shell in the sand bed region.

Specific details describing these commitments are provided in the Enclosure to this letter.

If you have any questions regarding this information, please contact Fred Polaski, Manager, License Renewal, at 610-765-5935.

I declare under penalty of perjury that the foregoing is true and correct.

Respectfully,

Executed on 12/9/2005



C. N. Swenson  
Site Vice President, Oyster Creek  
Generating Station  
AmerGen Energy Company, LLC

Enclosure: Summary of Commitments

cc: Regional Administrator, USNRC Region I  
NRC Project Manager, NRR - License Renewal, Safety  
NRC Project Manager, NRR - License Renewal, Environmental  
NRC Project Manager, OCGS, Part 50  
NRC Senior Resident Inspector, OCGS  
Bureau of Nuclear Engineering, New Jersey Department of Environmental Protection  
Oyster Creek File No. 05040

**Enclosure**

**Summary of Commitments**

The following table identifies commitments made in this document. Any other actions discussed in the submittal represent intended or planned actions. They are described to the NRC for the NRC's information and are not regulatory commitments.

<b>Commitment</b>	<b>Committed Date or Outage</b>	<b>One-Time Action (Yes/No)</b>	<b>Programmatic (Yes/No)</b>
1. AmerGen will revise the Oyster Creek UFSAR to update the current licensing basis to reflect that a cumulative usage factor of 1.0 will be used in fatigue analysis for reactor coolant pressure boundary components, as endorsed by the NRC in 10 CFR 50.55a.	Prior to period of extended operation	Yes	No
2. AmerGen will perform a set of one-time thickness measurements in an area of the containment structure (drywell) known as the "sand bed region" to confirm that the surface coating applied to this region of the containment has arrested corrosion. These measurements will be performed using ultrasonic testing from inside the drywell. The locations of these measurements will be a sample of areas previously inspected (in the 1990s) and identified as having exhibited corrosion. Inspecting the same locations will allow comparison of results in order to confirm that the surface coating applied in 1992 has arrested corrosion that had previously occurred.	Prior to period of extended operation	Yes	No

IWB-3720

1995 SECTION XI — DIVISION 1

IWB-3740

the effects of the out-of-limit condition on the structural integrity of the Reactor Coolant System.

(b) Appendix E provides procedures and criteria that may be used to evaluate the integrity of the reactor vessel beltline for the out-of-limit condition.

(c) The evaluation procedures shall be the responsibility of the Owner and shall be subject to acceptance by the regulatory authority having jurisdiction at the plant site.

**IWB-3730 FRACTURE TOUGHNESS  
CRITERIA FOR PROTECTION  
AGAINST FAILURE**

(a) During reactor operation, load and temperature conditions shall be maintained to provide protection against failure due to the presence of postulated flaws in the ferritic portions of the reactor coolant pressure boundary. Appendix G provides procedures that may be used to define these load and temperature conditions.

(b) For reactor vessels with material upper shelf Charpy impact energy levels less than 50 ft-lb, service

and test conditions may be evaluated, using current geometry and material properties, to provide protection against ductile failure. Appendix K contains procedures that may be used to demonstrate protection against ductile failure.

(c) The procedures used to define protection against failure due to the presence of postulated flaws shall be the responsibility of the Owner and shall be subject to acceptance by the regulatory authority having jurisdiction at the plant site.

**IWB-3740 OPERATING PLANT FATIGUE  
ASSESSMENTS**

A96

(a) Appendix L provides procedures that may be used to assess the effects of thermal and mechanical fatigue concerns on component acceptability for continued service.

(b) Appendix L provides procedures that may also be used when the calculated fatigue usage exceeds the fatigue usage limit defined in the original Construction Code.

**APPENDIX L**  
**OPERATING PLANT FATIGUE ASSESSMENT**

# ARTICLE L-1000

## INTRODUCTION

### L-1100 SCOPE

This Appendix provides methods for performing fatigue assessments to determine acceptability for continued service of reactor coolant system and primary pressure boundary components subjected to thermal and mechanical fatigue loads.

### L-1200 EVALUATION METHODS

(a) One or both of the following evaluation methods shall be used to determine acceptability for continued service of reactor coolant system and primary pressure boundary components:

(1) The fatigue usage factor evaluation procedures and acceptance criteria in L-2000.

(2) The flaw tolerance evaluation procedures and acceptance criteria in L-3000.

(b) The evaluations of L-1200(a)(1) and L-1200(a)(2) shall be documented in accordance with the requirements of L-4000.

### L-1300 NOMENCLATURE

The following nomenclature is used:

$a$  = general depth dimension for the postulated flaw, in.

$a_c$  = minimum critical flaw depth (size)

$a_i$  = minimum critical flaw size for emergency and faulted conditions, in.

$a_f$  = maximum depth by which the postulated flaw in L-3200 is calculated to grow by the end of the evaluation period, in.

$a_o$  = maximum allowable flaw depth for normal (including upset and test) conditions, in.

$\ell$  = general length dimension for the postulated flaw, in.

$\ell_f$  = maximum postulated flaw length at the end of the evaluation period, in.

$P$  = operating period calculated for the postulated flaw in L-3200 to grow to the maximum depth allowed in L-3312, L-3320 (in the course of preparation), L-3332, or L-3342, yr.

## ARTICLE L-2000 FATIGUE USAGE EVALUATION

### L-2100 SCOPE

This Article provides requirements for performing fatigue usage factor evaluations for reactor coolant system or primary pressure boundary components in operating plants.

### L-2200 EVALUATION PROCEDURES AND ACCEPTANCE CRITERIA

#### L-2210 EVALUATION PROCEDURES

(a) The Section III, Class 1 fatigue usage factor evaluation procedures shall be used to determine a

cumulative fatigue usage factor (CUF) at the end of the evaluation period.

(b) Editions and Addenda of Section III later than the Construction Code may be used.

(c) The loadings in the Design Specification, plant specific loading cycles consistent with the plant design and operating practices, or actual plant operating data, shall be used, as appropriate.

#### L-2220 ACCEPTANCE CRITERIA

The reactor coolant system or primary pressure boundary component is acceptable for continued service throughout the evaluation period if the CUF in L-2210 is less than or equal to 1.0.