U.S. NUCLEAR REGULATORY COMMISSION

In the Matter of AMERGEN	ENERCY CO. LIL
Dunkert No 50 -0219-LR	

APPLICANTS' EXHIBIT A

Docket No 50 -0219-LR Offi	cial Exhibit NoA
OFFERED by Applicant/Line 1880	Intervenor

NRC Staff

Other.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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NUCLEAR REGULATORY COMMISSION

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REJECTED ADMITTED Action Taken:

WITHDRAWN

ATOMIC SAFETY AND LICENSING INCOMPREDER

Before Administrative Judges: E. Roy Hawkens, Chair Dr. Paul B. Abramson Dr. Anthony J. Baratta

In the Matter of: AmerGen Energy Company, LLC (License Renewal for Oyster Creek Nuclear Generating Station)

September 20, 2007

Docket No. 50-219

DOCKETED **USNRC**

October 1, 2007 (10:45am)

OFFICE OF SECRETARY **RULEMAKINGS AND ADJUDICATIONS STAFF**

AMERGEN'S LIST OF EXHIBITS

EXHIBIT	DESCRIPTION
A	List of Exhibits
В	Initial Testimony
C	Rebuttal Testimony
C.1	Sur-Rebuttal Testimony
D	Witness Curricula Vitae
1	Curricula Vitae of Julien D. Abramovici, Jon Cavallo, Scott R. Erickson, Michael P. Gallagher, Barry M. Gordon, Dr. David G. Harlow, Jon C. Hawkins, Edwin W. Hosterman, Martin McAllister, Ahmed M. Ouaou, John F. O'Rourke, Fred Polaski, Francis H. Ray, and Peter Tamburro [Duplicative of witness curricula vitae that form part of Exhibit D, but does not include curriculum vitae of Hardayal S. Mehta (see Exhibit 36)]

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2	Extracts from AmerGen's License Renewal Application for OCNGS, § 2.4.1 (Primary Containment); and Table 3.0-2 (Primary Containment, Components Subject to Aging Management Review)
3	Letter from Michael P. Gallagher to the NRC (December 8, 2006) enclosing AmerGen's Submittal of Information to the Advisory Committee on Reactor Safeguards ("ACRS") License Renewal Subcommittee on the drywell corrosion issue history, including information from the 2006 refueling outage (without references)
4	Schematic Drawing of the Cross-Section of the Drywell Shell (embedded into a concrete pedestal atop the Reactor Building concrete foundation).
5.	Schematic Drawing of the Drywell Shell Exterior
6	Schematic Drawing Showing Top View of the Ten Bays in the Sand Bed Region
7	Schematic Drawing Showing Detail of the Lower Drywell/Sand Bed Region
8	Schematic Drawing Showing Detail of the Reactor Cavity Seal and Trough Drain
9	Schematic Drawing Showing Detail of the Reactor Cavity
10	Letter from Michael P. Gallagher to the NRC (February 15, 2007) enclosing AmerGen's Additional Commitments Related to Aging Management Program for the Drywell Shell, Associated with License Renewal
11	Drawings of the 0.536" Local Buckling Acceptance Criterion "Tray" (front and isometric views)
12	Letter from Michael P. Gallagher to the NRC (December 3, 2006) enclosing AmerGen's License Renewal Application Supplement, Post-2006 Refueling Outage, pages 13 to 14
13	Letter from Michael P. Gallagher to the NRC (April 7, 2006) enclosing AmerGen's Response to NRC Request for Additional Information related to corrosion in the sand bed region, pages 3 to 7

14	E-mail from George Beck (Exelon) to Donnie Ashley and Roy Matthew (NRC) (April 5, 2006) enclosing AmerGen's Response to NRC Audit Question AMP-210, sub-question 3, regarding drywell corrosion in the sand bed region
15	NRC Safety Evaluation Report, Related to License Renewal for Oyster Creek Generating Station (March 2007), pages 4-53 to 4-60
16	Exelon Calculation No. C-1302-187-5320-024, Rev. 2 ("24 Calc."), "O.C. Drywell Exterior UT Evaluation in the Sand Bed" (May 18, 2007)
17	GPU Calculation No. C-1302-187-5320-024, Rev. 0 ("24 Calc."), "O.C. Drywell Exterior UT Evaluation in the Sand Bed" (April 16, 1993)
18	Exelon Calculation No. C-1302-187-5320-024, Rev. 1 ("24 Calc."), "O.C. Drywell Exterior UT Evaluation in the Sand Bed" (September 21, 2006)
19	Technical Evaluation AR A2152754 E09 ("Tech Eval E09") (November 7, 2006), regarding water found in drywell trench 5 – UT data evaluation
20	Exelon Calculation No. C-1302-187-E310-041 ("41 Calc."), "Statistical Analysis of Drywell Vessel Sandbed Thickness Data, 1992, 1994, 1996, 2006" (December 15, 2006)
21	AmerGen's Oyster Creek Generating Station License Renewal ACRS Presentation, slides 75-76, showing statistical methodology used to evaluate external UT grid measurements (January 18, 2007)
22	GPU Calculation No. C-1302-187-5300-005 ("05 Calc.") "Statistical Analysis of Drywell Thickness Data thru 12-31-88" (February 2, 1989)
23	GPU Calculation No. C-1302-187-5300-011, pages 1 to 40 ("11 Calc.") "Statistical Analysis of Drywell Thickness Data thru 4-24-90" (April 12, 1991)
24	ASME IWE Class MC Containment Visual Examination Records, recording the VT-1 visual examinations of the drywell shell in all ten bays in the sand bed region during the 2006 refueling outage (October 2006)
25	Table showing the location, mean thickness (by date), and the 95% confidence interval of the internal UT grid data for the sand bed region,

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	1992, 1994, 1996, 2006, prepared in response to Licensing Board Order
26	AmerGen's Oyster Creek Generating Station, License Renewal ACRS Presentation, slide 94, showing a table of general sand bed region thicknesses at 19 grid locations (January 18, 2007)
27	"Oyster Creek Drywell Vessel Corrosion Mitigation - TDR No. 1108," a summary report of corrective actions taken by GPU to mitigate the corrosion mechanism that was attacking the Oyster Creek drywell vessel (April 29, 1993)
28	AmerGen's Oyster Creek Generating Station ACRS Full Committee Presentation, slide 14 showing a comprehensive map of all interior and exterior 2006 UT inspection results (February 1, 2007)
29	AmerGen's Oyster Creek Generating Station, License Renewal ACRS Presentation, two slides showing photographs of exterior UT inspection locations (January 18, 2007)
30	ACRS License Renewal Subcommittee Meeting Transcript, excerpts discussing sources of water in the sand bed region (October 3, 2006)
31	ACRS License Renewal Subcommittee Meeting Transcript, excerpts discussing sources of water in the sand bed region (January 18, 2007)
32	Proposed Change to OCNGS PM (Preventive Maintenance) Database for drywell and torus to implement license renewal commitments, PM18704M (July 12, 2006)
33	OCNGS Work Order No. R2076388: Leakage Monitoring of Torus, Sandbeds, and Reactor Drain (October 2, 2006)
34	Tuboscope TK-7 Modified Phenolic Coating Product Technical Information
35	Devoe Coatings data sheets for the epoxy coating system installed in the OCNGS Sand Bed Region: Devoe "Pre-Prime 167" and "Devran 184: 100% Solids Epoxy Tank Coating"
36	Curriculum vitae of Dr. Har Mehta [Duplicative of witness curriculum vitae that forms part of Exhibit D.]
37	NRC Safety Evaluation: Drywell Structural Integrity, Oyster Creek Nuclear Generating Station (April 24, 1992)

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38	Oyster Creek Nuclear Generating Station, Updated Final Safety Analysis Report ("UFSAR"), revision 13 (April 2003), portions discussing design of Category 1 Structures, including the Mark I Containment System (Drywell)
39	Letter from Dr. H.S. Mehta (GE) to Dr. S. Tuminelli (OCNGS), "Sandbed Local Thinning and Raising the Fixity Height Analyses (line Items 1 and 2 in Contract # PC-0391407)" (December 11, 1992): this letter summarizes the sensitivity analysis used to establish the sand bed region local buckling acceptance criterion
40	AmerGen's Oyster Creek Generating Station License Renewal ACRS Presentation (January 18, 2007) (all slides)
41	AmerGen's Oyster Creek Generating Station ACRS Full Committee Presentation (February 1, 2007) (all slides)
42	ASME Code Section III, Case N284-1: Metal Containment Shell Buckling Design
43	Figure showing Bay 19 UT thickness measurements and the significant difference between two types of statistical confidence limits
44	Scaled Maps of Internal and External UT Thickness Measurements for Bays 1, 13, 17, and 19
45	ASME Code Section XI, Case N513: Evaluation Criteria for Temporary Acceptance of Flaws in Class 3 Piping
46	NRC Bulletin 87-01, "Thinning of Pipe Walls in Nuclear Power Plants"
47	NRC Generic Letter 89-08, "Erosion/Corrosion-Induced Pipe Wall Thinning"
48	ASME Code Section XI, Article IWE: Inservice Inspection, Repair, and Replacement of Class MC Pressure-Retaining Components
49	API Standard 653: Tank Inspection, Repair, Alteration and Reconstruction (January 1992), selections discussing inservice inspection of tanks
50	OCNGS Work Order No. R2091019: Inspect Poly Bottles for Presence of Water, 8-25-2006 Inspection Results
51	OCNGS Work Order No. R2091083: Inspect Poly Bottles for Presence of Water, 11-25-2006 Inspection Results

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52	OCNGS Work Order No. R2095404: Inspect Poly Bottles for Presence of Water, 2-13-2007 Inspection Results
53	OCNGS Work Order No. R2099351: Inspect Poly Bottles for Presence of Water, 5-22-2007 Inspection Results
54	OCNGS Work Order No. R2104033: Inspect Poly Bottles for Presence of Water, 8-28-2007 Inspection Results
55	OCNGS Work Order No. R2088495: Inspect Poly Bottles for Presence of Water, 12 RFO Daily Inspection Results
56	OCNGS Work Order No. R2088493: Camera Inspection of Reactor Cavity Drain Line, 12RFO Inspection Results
57	R. H. Hausler, et al., "Corrosion Management in the Arun Oil Field," NACE Paper 1996
58	R.H. Hausler, et al., "Development of a Corrosion Inhibition Model I: Laboratory Studies," NACE Paper 1999
59	R.H. Hausler, et al., "Development of a Corrosion Inhibition Model II: Verification of Model by Continuous Corrosion Rate Measurements Under Flowing Conditions with a Novel Downhole Tool," NACE Paper 1999
60	L. Bertolini, et al., Corrosion of Steel in Concrete – Prevention, Diagnosis, Repair, Wiley-VCH, Weinheim, Germany, 2004, selections describing corrosion rates in concrete
61	NRC Generic Aging Lessons Learned (GALL) Report (Vol. 2, Rev. 1, at II A.1 through 5), portions discussing concrete containment structures
62 A-E	Color Photographs of Three-Dimensional Model of Quarter Section of the Sand Bed Region

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