APPLICANT'S EXHIBIT 41

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Oyster Creek License Renewal Presentation to ACRS

February 1, 2007

Agenda

- Summary of Drywell Corrosion
- Resolution of Drywell Shell Corrosion Issues from January 18, 2007 Subcommittee Meeting
- License Renewal Application Summary

AmerGen Representatives

- Mike Gallagher
- Fred Polaski
- John O'Rourke
- Dr. Hardayal Mehta
- Dr. Clarence Miller
- Ahmed Ouaou

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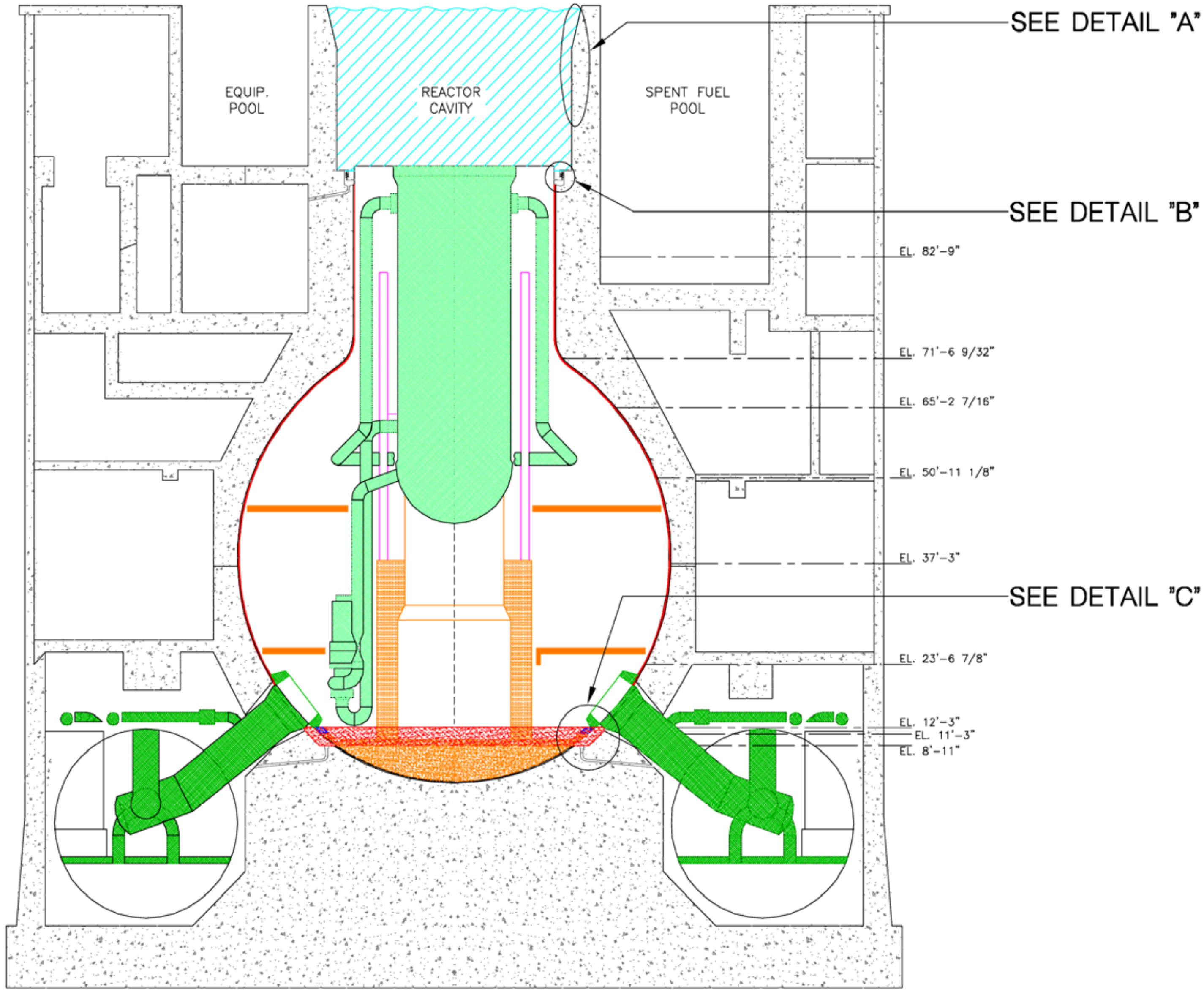
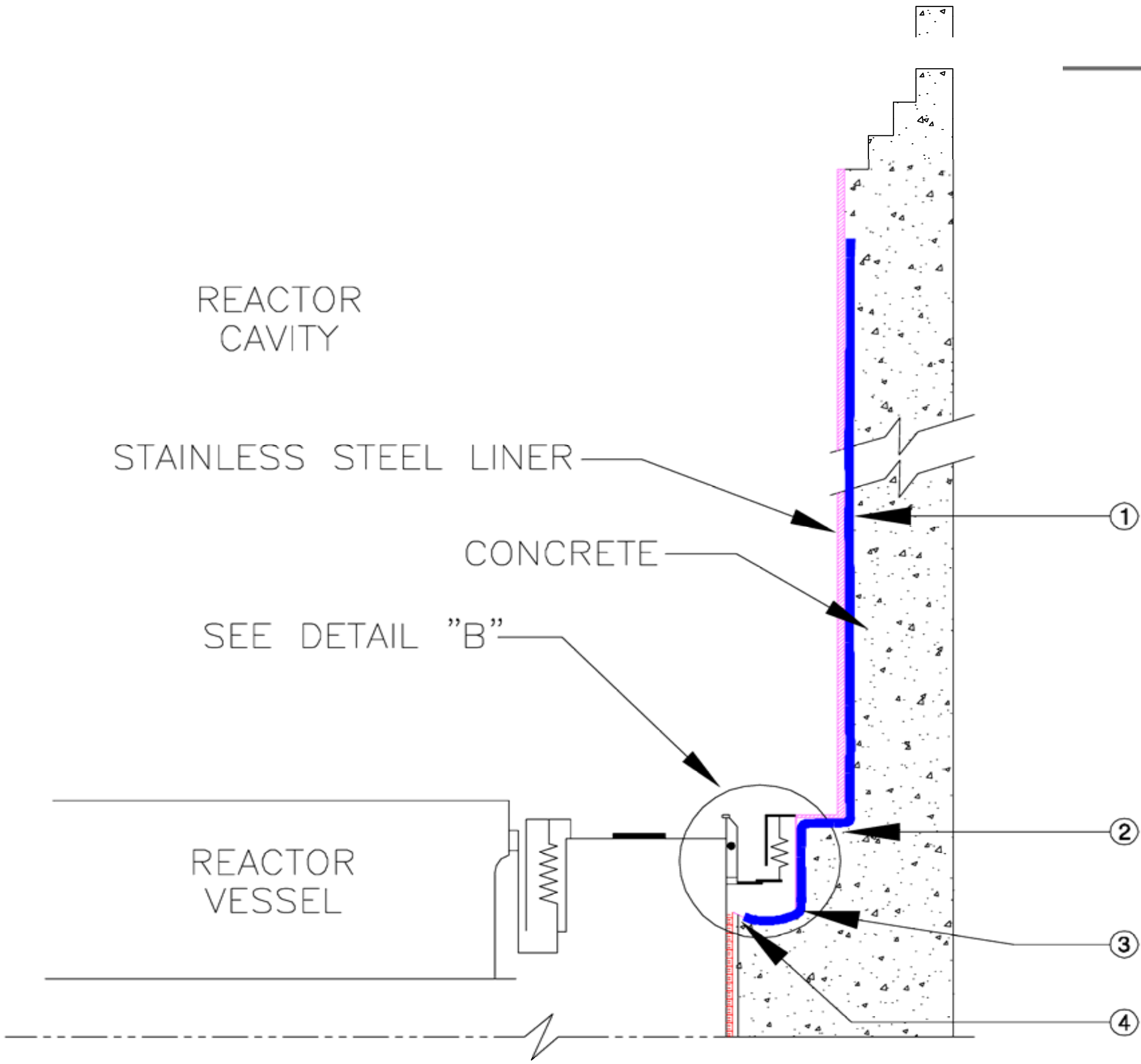
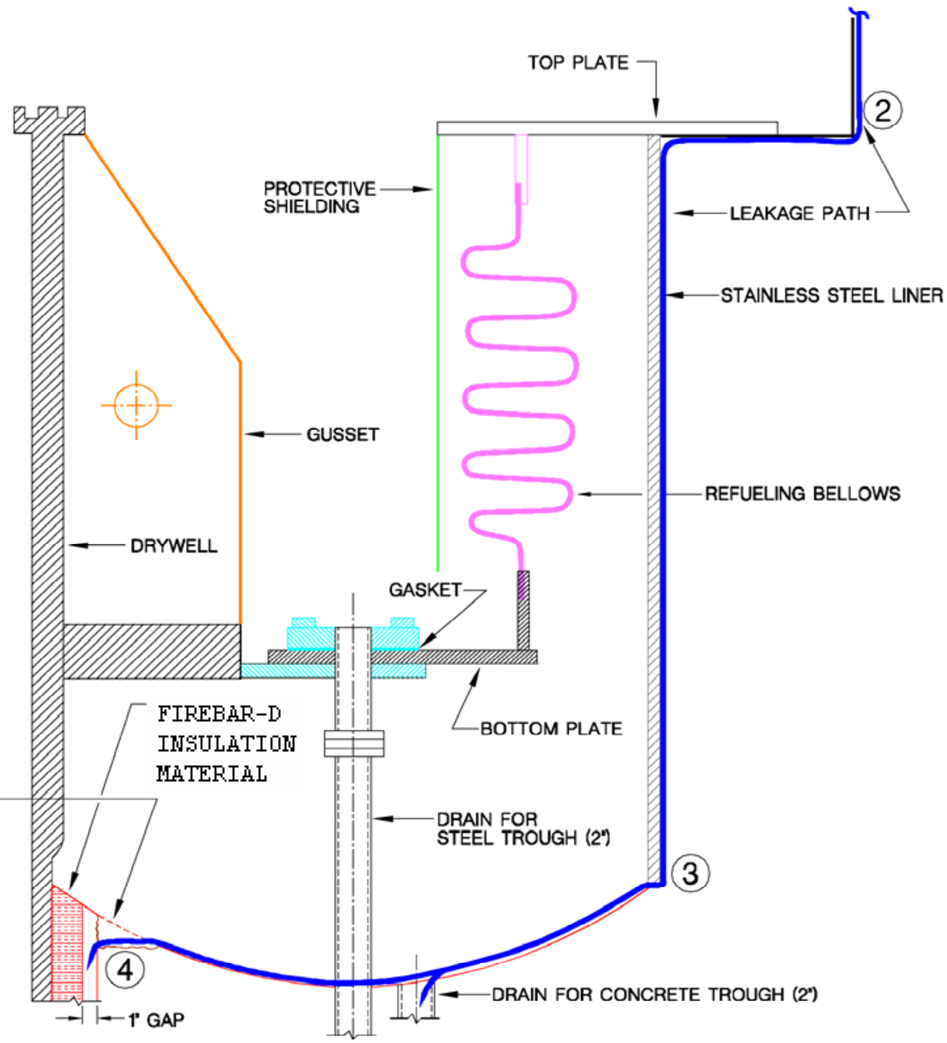


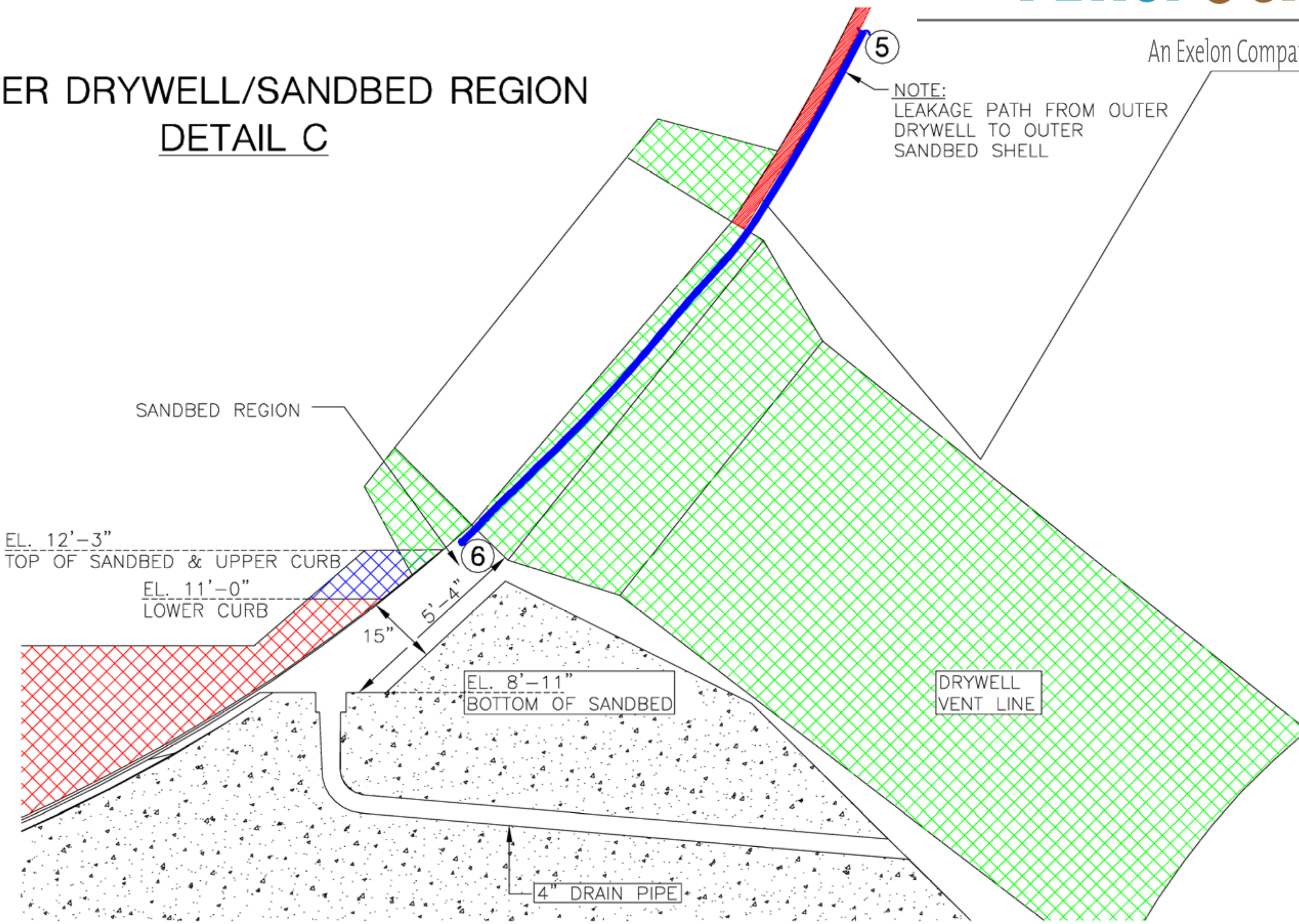


DRYWELL AND REACTOR CAVITY SECTION
DETAIL "A"

DRYWELL TO REACTOR CAVITY SEAL DETAIL
DETAIL "B"



LOWER DRYWELL/SANDBED REGION
DETAIL C



Summary of Drywell Corrosion

- Leakage from the reactor cavity liner accumulated in the sand bed region, corroding the exterior surface of the drywell shell
- Corrective actions
  - Water has been prevented from entering the sand bed region
  - The sand was removed and the exterior of the drywell shell coated with an epoxy coating
  - Analysis performed to determine code required thickness of the drywell shell

Summary of Drywell Corrosion

- GE analysis of code required thickness (1992)
  - Buckling analysis based on Code case N-284 for refueling condition with no sand in the sand bed region for a 36° section model with 736 mils uniform thickness and Safety Factor of 2.0
    - 736 mils is the code required general thickness for buckling in the sand bed region
    - Local thickness criteria also established (e.g., 536 mils for a 12" x 12" area)
- A Section VIII analysis for internal pressure was originally performed at a design pressure of 62 psig; later updated for 44 psig design pressure (1993)
  - 44 psig is an Oyster Creek plant specific maximum design pressure, approved in Tech Spec amendment 165
  - Analysis demonstrated increased margin for the minimum required thickness

Summary of Drywell Corrosion

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- 2006 Refueling outage monitoring results
  - Low leakage from reactor cavity liner
    - Approximately 1 gpm
  - No water in the sand bed region
  - Epoxy coating 100% visual inspection in all bays
    - In good condition
  - UT grid measurements in sand bed region from inside the drywell
    - No corrosion
  - Local UT measurements in sand bed from outside
    - The drywell shell exceeds required thickness
  - UT grid measurements in upper elevations
    - No corrosion except 1 location shows 0.66 mils/yr

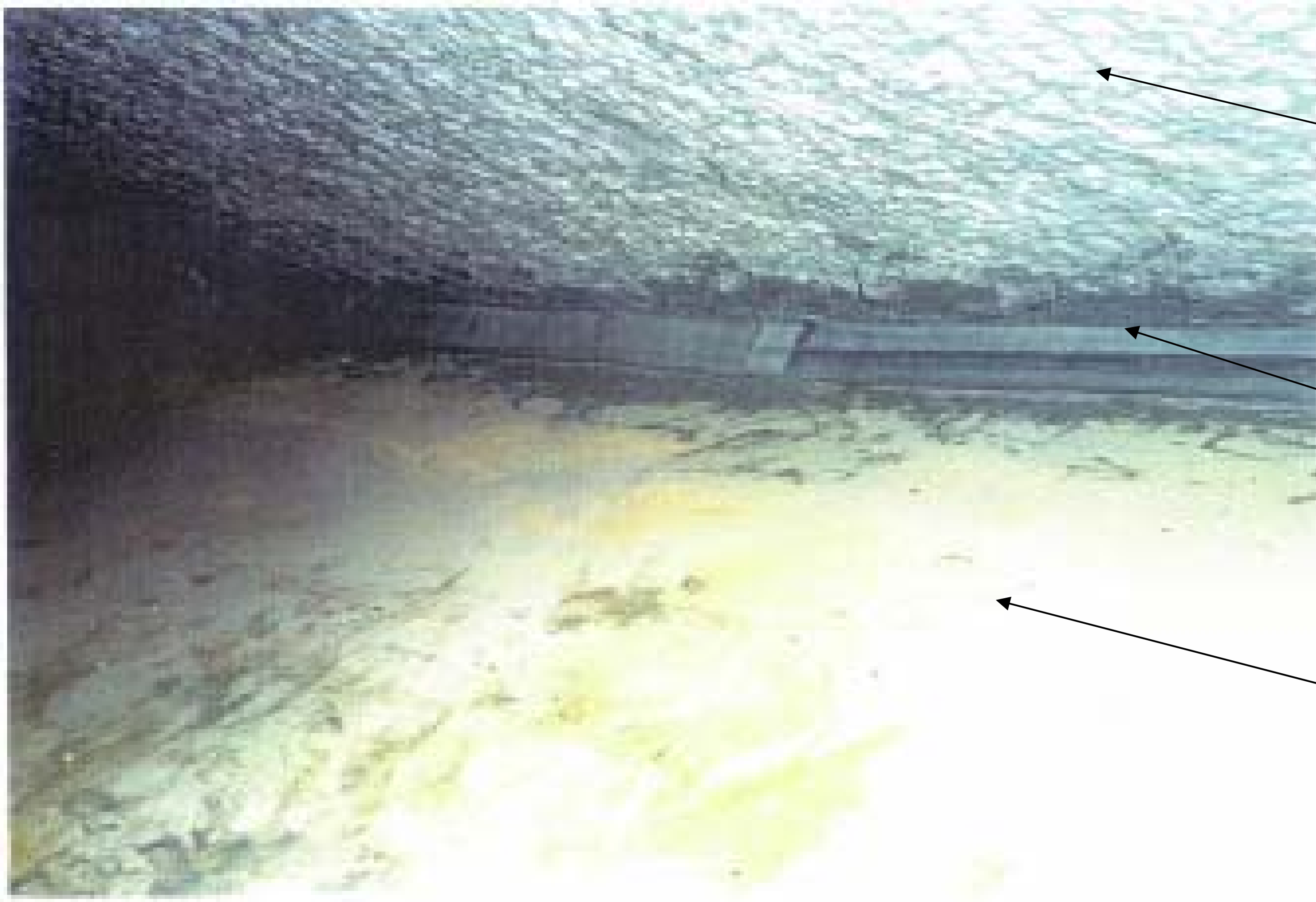
Sand Bed Region 1992

Drywell

Shell

Corrosion product on drywell vessel

Sand Bed Region 1992



Finished floor, vessel with two top coats – caulking material applied

Sand Bed Region 2006

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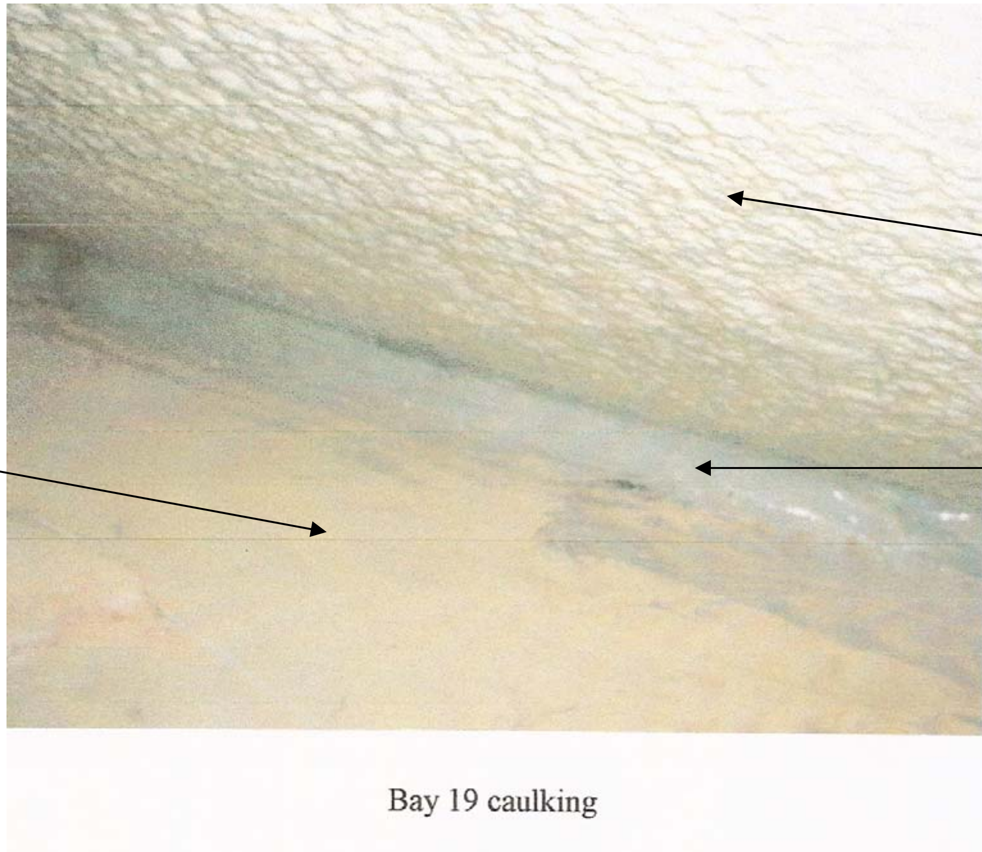

Drywell Shell

Caulk Seal

Sandbed Floor

Drywell Shell Bay 19

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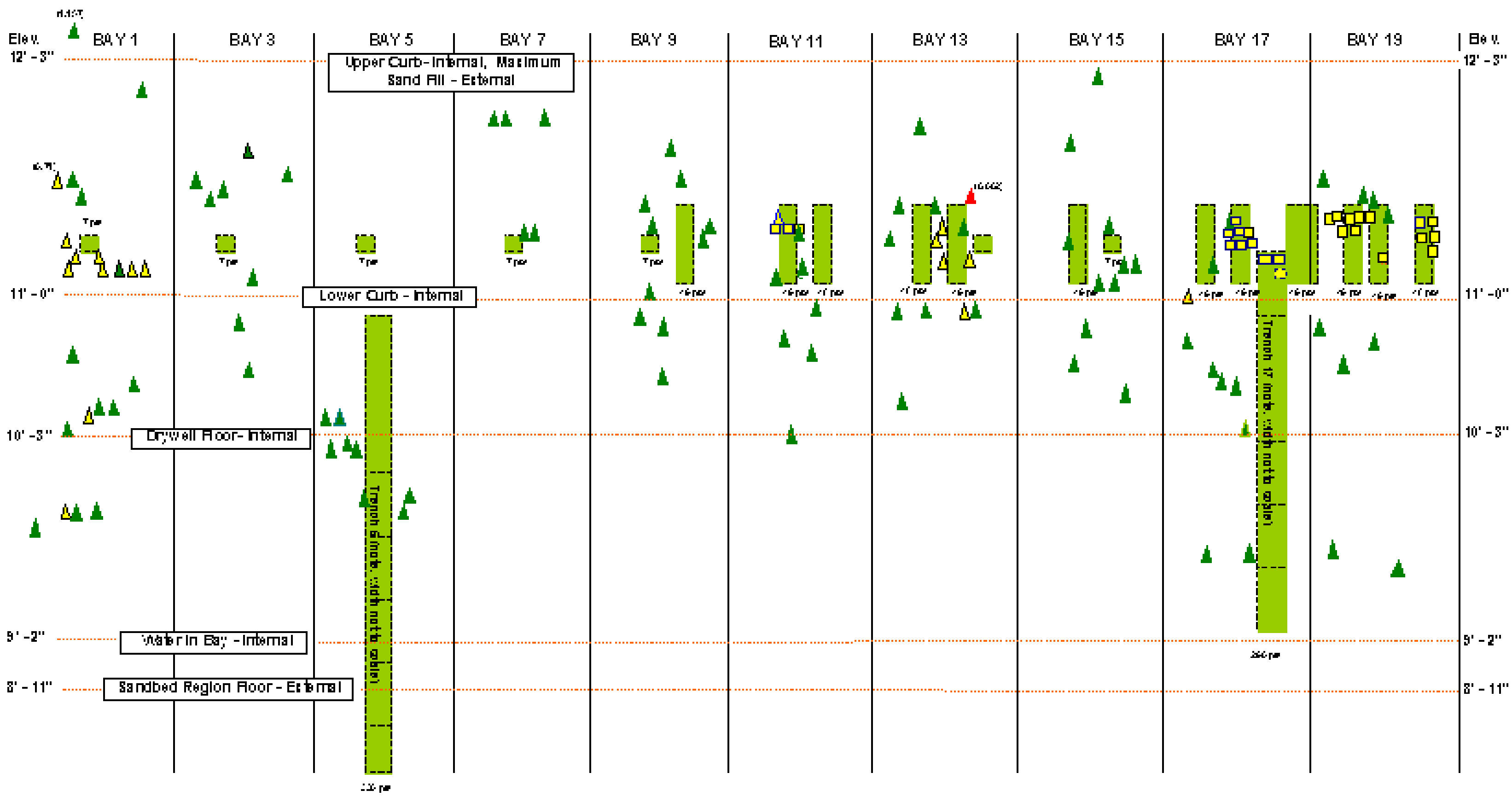
2006 Measurement Locations in the Sandbed Region

Color Code for thickness:

Green = UT Measurements > 736 Mils
Yellow = UT Measurements Between 636 and 736 Mils
Red = UT Measurements Between 536 and 636 Mils

Location / Type of UT Measurement

△ External Point UT Measurements
⬚ Internal Grid UT Measurements
□ Internal Point UT Measurements



For illustration of measurement locations in each bay. Vertical dimensions to scale showing approximate measurement locations. Horizontal dimensions not to scale for the individual bays.

Minimum Available General Thickness Margins

Bay No.	1	3	5	7	9	11	13	15	17	19
Minimum Available Margin, mils	365	439	432	397	256	84	101	306	74	64

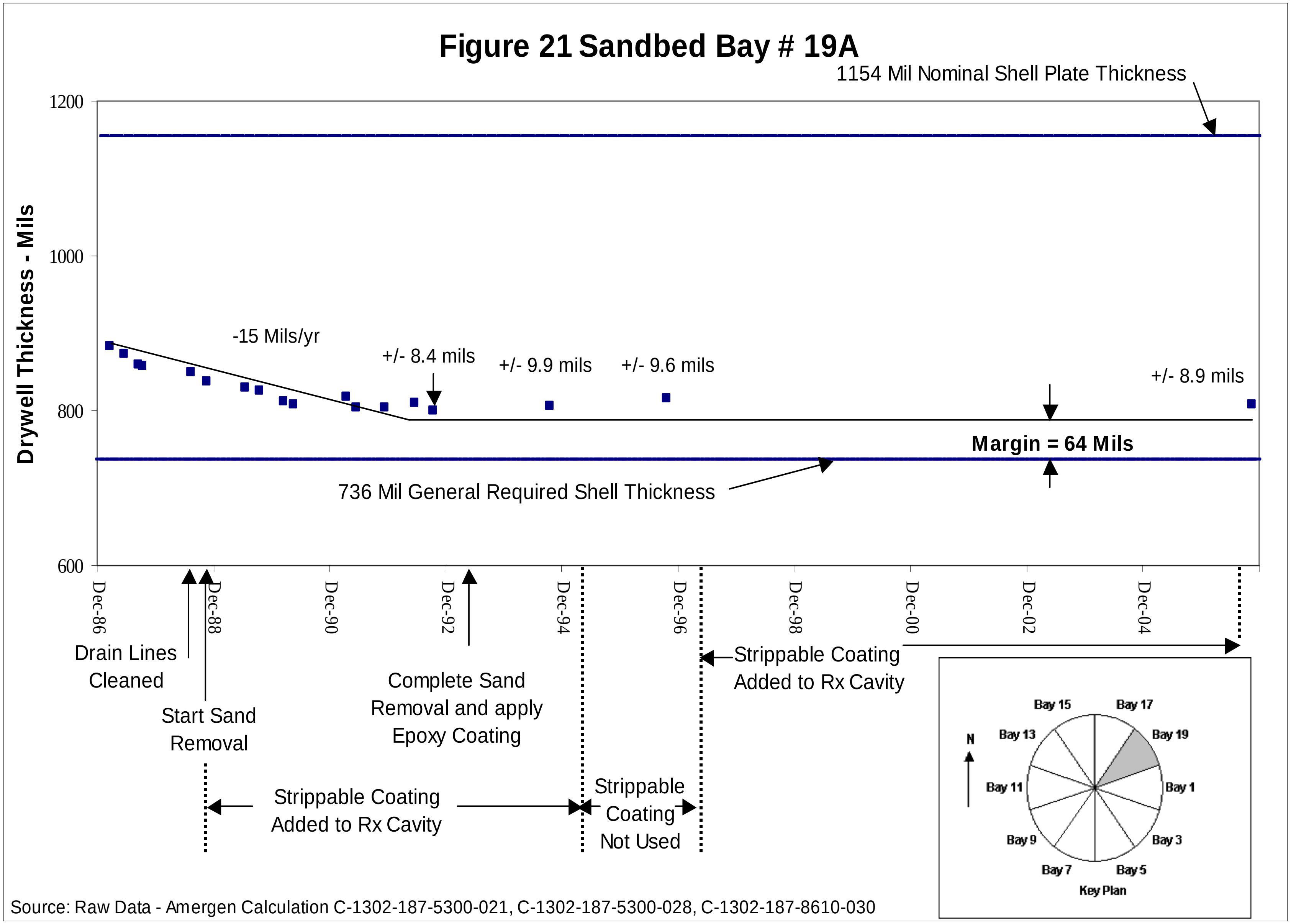
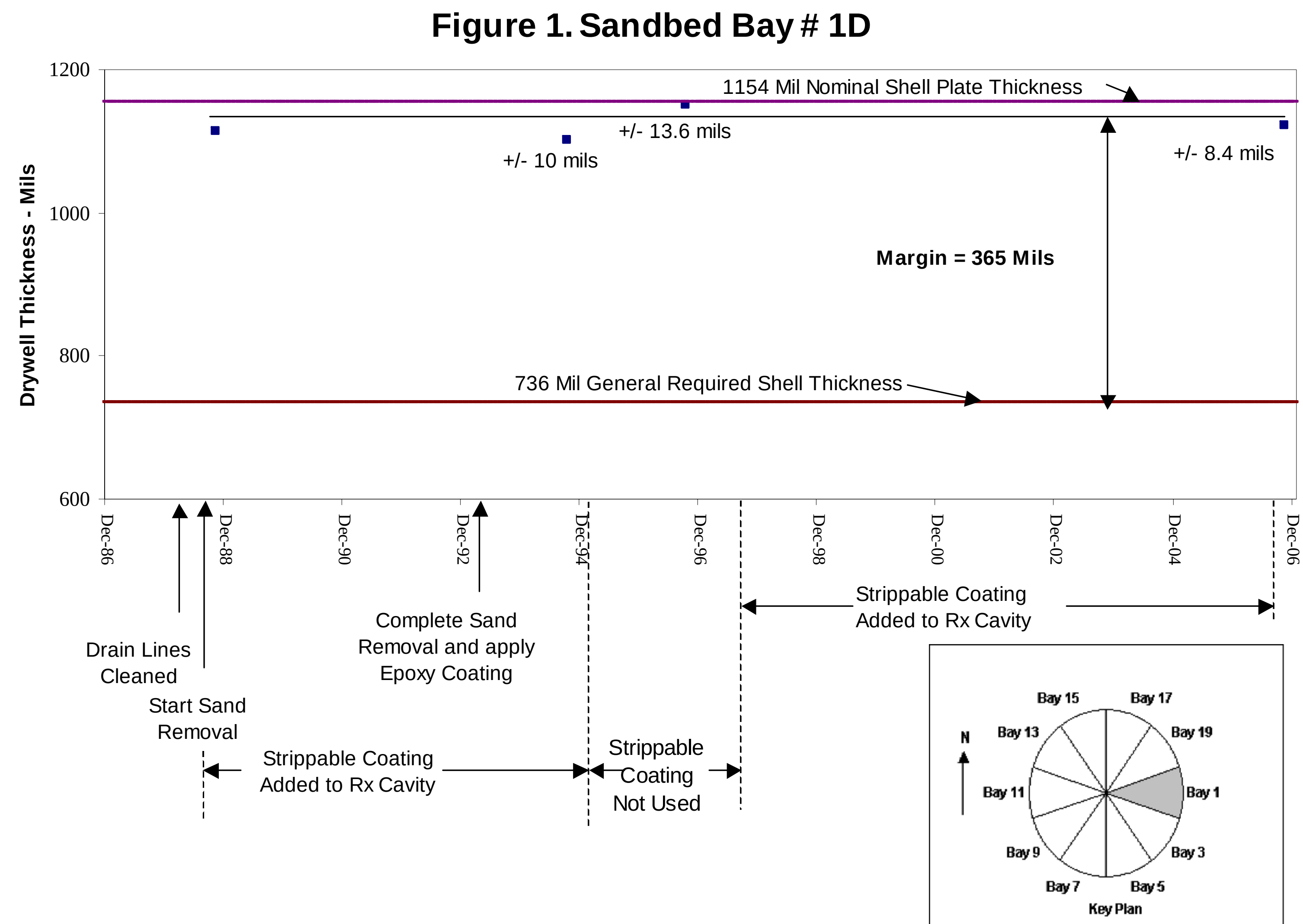


Figure 21 Sandbed Bay # 19A
1154 Mil Nominal Shell Plate Thickness
Drywell Thickness - Mils
1200
1000
800
600
-15 Mils/yr
+/- 8.4 mils
+/- 9.9 mils
+/- 9.6 mils
+/- 8.9 mils
Margin = 64 Mils
736 Mil General Required Shell Thickness
Dec-86
Dec-88
Dec-90
Dec-92
Dec-94
Dec-96
Dec-98
Dec-00
Dec-02
Dec-04
Drain Lines Cleaned
Start Sand Removal
Complete Sand Removal and apply Epoxy Coating
Strippable Coating Added to Rx Cavity
Strippable Coating Not Used
Strippable Coating Added to Rx Cavity
Bay 15
Bay 17
Bay 13
Bay 19
N
Bay 11
Bay 1
Bay 9
Bay 3
Bay 7
Bay 5
Key Plan
Source: Raw Data - Amergen Calculation C-1302-187-5300-021, C-1302-187-5300-028, C-1302-187-8610-030



Source: Raw Data - AmerGen Calculation C-1302-187-5300-021, C-1302-187-5300-028, C-1302-187-8610-

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Drywell Shell Current Condition

Drywell Region	Nominal Design Thickness, mils	Minimum Measured General Thickness, mils	Minimum Required General Thickness, mils	Minimum Available Thickness Margin, mils
Cylindrical	**640**	**604**	**452**	**152**
Knuckle	**2,625**	**2,530**	**2260**	**270**
Upper Sphere	**722**	**676**	**518**	**158**
Middle Sphere	**770**	**678**	**541**	**137**
Lower Sphere	**1154**	**1160**	**629**	**531**
Sand Bed	**1154**	**800**	**736**	**64**

Commitment Summary

- UT thickness measurements in various areas of sand bed and upper drywell regions
- Strippable coating will be applied to the reactor cavity liner every refuel outage
- Leakage monitoring of cavity trough drain and sand bed drains
- Visual inspection of sand bed region shell epoxy coating
- Visual inspection of seal at junction between drywell shell and sand bed region floor
- Visual inspections and UT measurements of the drywell shell in the trench areas
- Visual inspection of moisture barrier inside drywell at junction between shell and floor/curb

Overall Conclusions

- The corrective actions to mitigate drywell shell corrosion have been effective
- The drywell shell corrosion has been arrested in the sand bed region and continues to be very low in the upper drywell elevations
- The corrosion on the embedded portion of the drywell shell is not significant
- The drywell shell meets code safety margins
- We have an effective aging management program to ensure continued safe operation

Drywell Shell Corrosion

Issues from January 18, 2007 Subcommittee Meeting

1. Capacity Reduction Factor
2. Buckling Analysis
3. Reactor Cavity Liner Leakage
4. Future Monitoring Programs
5. Interior Surface of the Embedded Drywell Shell

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Capacity Reduction Factor

Subcommittee Issue # 1:

The GE analysis and Sandia analysis are different. A key difference is that the GE analysis increased the capacity reduction factor for the refueling load combination case when there is no internal pressure present. Is this acceptable?

Response:

The increased capacity reduction factor used in the GE analysis is acceptable.

Capacity Reduction Factor Conclusions

- The GE analysis in 1992 increased the capacity reduction factor from 0.207 to 0.326 to account for orthogonal tensile stresses in a sphere
- Buckling tests conducted on spheres show a reduction in the effect of imperfections on the buckling strength
- The application of an increased capacity reduction factor to the Sandia analysis produces results similar to the GE analysis
- AmerGen’s conclusion is that the GE analysis, including a minimum uniform thickness in the sand bed region of 736 mils, is valid

Buckling Analysis Details

- Buckling Analysis followed the methodology outlined in ASME Code Case N-284

  Allowable Compressive Stress = $\eta_i \alpha_i \sigma_{ie}$**/FS**

  η_i = Plasticity Reduction Factor

  α_i = Capacity Reduction Factor

  σ_{ie} = Theoretical Elastic Buckling Stress

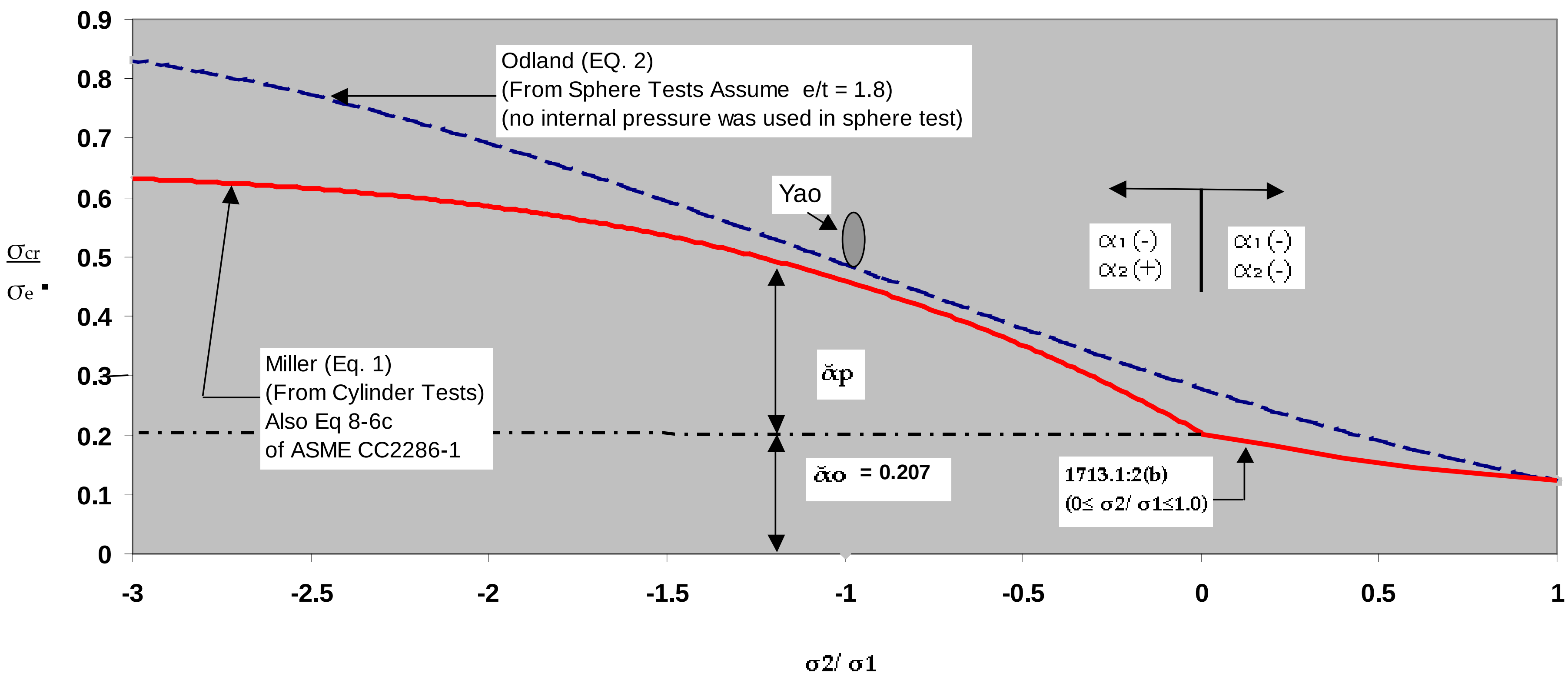
  FS = Factor of Safety (2.0 for refueling condition and 1.67 for post-accident condition)

- Capacity Reduction Factor, α_i , was increased to account for the effect of a coexisting orthogonal tensile stress
  - The increase was based upon tests conducted on cylinders
  - Tests conducted on spherical segments concluded that the modified α_i based on cylinder test results is conservative

Modified Capacity Reduction Factor

- ASME Code Case N-284 allows modifying the capacity reduction factor to account for the effect of orthogonal tensile stress on buckling strength.
  - The effect of orthogonal tensile stress due to internal pressure is well documented for cylinders.
- The N-284 capacity reduction factor is modified using formulas developed by C. D. Miller. The formulas are based on tests conducted on cylinders.
- Tests conducted on spheres, without internal pressure, show that the coexistence of orthogonal tensile stress reduces the effect of imperfections on the buckling strength of spheres
  - Orthogonal tensile stresses are a result of in-plane tension or compression loads.
- The modified capacity reduction factor is now used in ASME Code Case 2286-1 for spheres.
- The following figure shows that the modified formula is conservative for spheres.

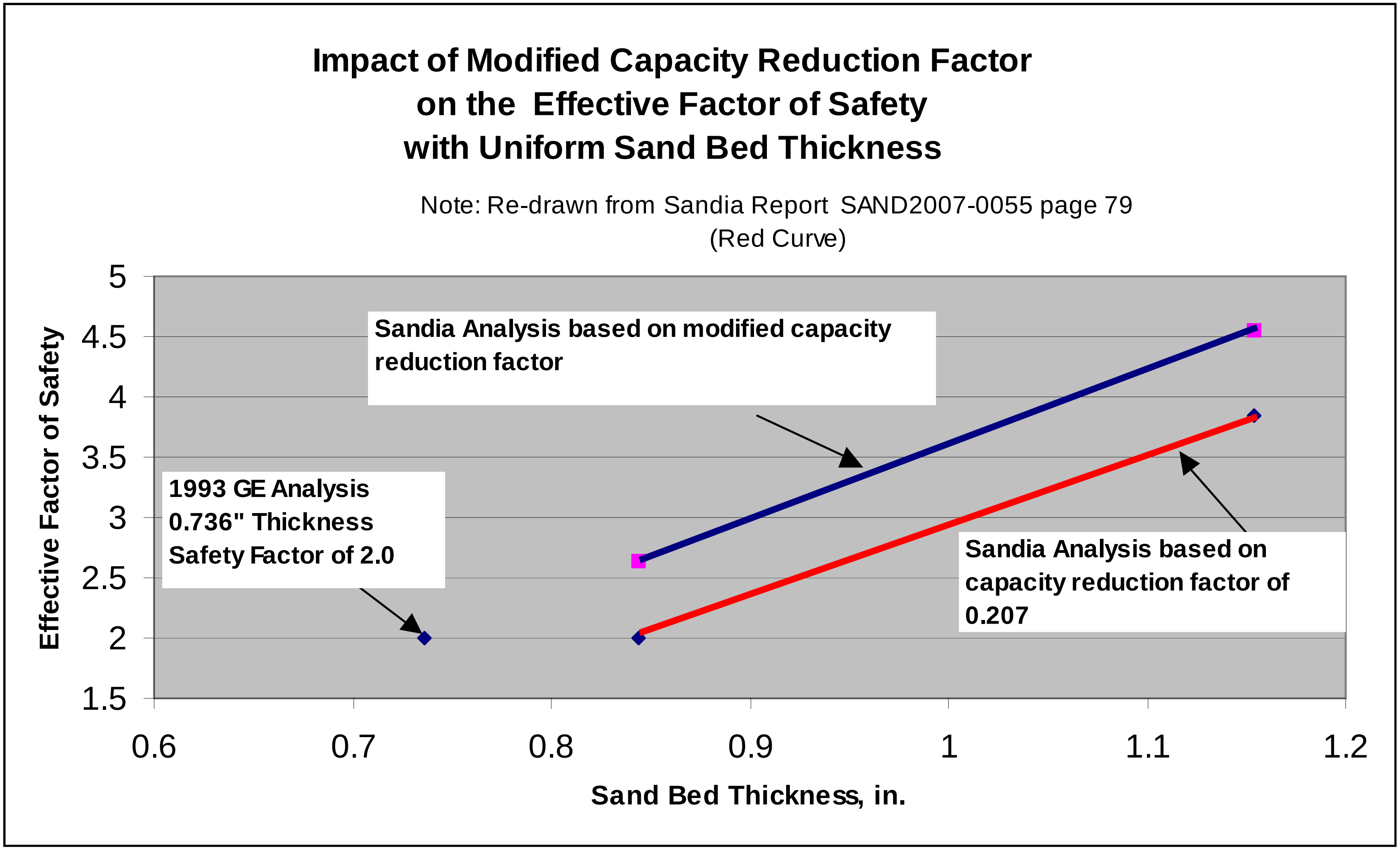
Capacity Reduction Factor for Spheres



Impact of Modified Capacity Reduction Factor on Buckling Stress

Parameter	Sandia without Modified α_i	Sandia with Modified α_i
As analyzed Thickness	0.842	0.842
Theoretical Elastic Instability Stress, ksi	46.49	46.49
Capacity Reduction Factor	0.207	0.207
Circumferential Stress (Orthogonal tensile stress), ksi		2.5*
Equivalent Pressure, psi		10.02
"X" Parameter		0.042
ΔC		0.039
Modified Capacity Factor		0.272
Elastic Buckling Stress, ksi		12.65
Proportional Limit Ratio	0.253	0.333
Plasticity Reduction Factor	1.0	1.0
Inelastic Buckling Stress, ksi	9.62	12.65
Code Required Factor of Safety, FS	2.0	2.0
Allowable Compressive Stress, ksi	4.81	6.33
Applied Compressive Stress, ksi	4.47	4.47
Calculated Safety Factor	2.15	2.83

Assumed average orthogonal tensile stress based on 8 ksi orthogonal tensile stress given in Sandia Report Table 3-2.


Impact of Modified Capacity Reduction Factor
on the Effective Factor of Safety
with Uniform Sand Bed Thickness
Note: Re-drawn from Sandia Report SAND2007-0055 page 79
(Red Curve)
Sandia Analysis based on modified capacity reduction factor
1993 GE Analysis
0.736" Thickness
Safety Factor of 2.0
Sandia Analysis based on capacity reduction factor of 0.207
Effective Factor of Safety
Sand Bed Thickness, in.
5
4.5
4
3.5
3
2.5
2
1.5
0.6
0.7
0.8
0.9
1
1.1
1.2

NRC Issued SER for Drywell Analysis – April 24, 1992

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- Numerous exchanges of technical information between Licensee, GE, Code Case Expert and NRC in early 1990s
- In its SER, the Staff discussed the methodology Oyster Creek used to perform buckling analysis and specifically addressed the use of a modified capacity reduction factor
- Brookhaven National Laboratory supported the NRC Staff in performance of this review
- The Staff concluded that the drywell meets ASME Section III Subsection NE requirements

Capacity Reduction Factor Conclusions

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- The GE analysis in 1992 increased the capacity reduction factor from 0.207 to 0.326 to account for orthogonal tensile stresses in a sphere
- Buckling tests conducted on spheres show a reduction in the effect of imperfections on the buckling strength
- The application of an increased capacity reduction factor to the Sandia analysis produces results similar to the GE analysis
- AmerGen's conclusion is that the GE analysis, including a minimum uniform thickness in the sand bed region of 736 mils, is valid

Buckling Analysis

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Subcommittee Issue # 2:

Thickness margin may be better understood with a modern 3D finite element model where various thickness and thickness configurations in the sand bed region could be evaluated.

Response:

1. Our current licensing basis analysis demonstrates that code requirements are met.
2. Use of a modern modeling technique, inputting actual shell thicknesses, should demonstrate more thickness margin.
3. AmerGen will perform a 3D finite element analysis of the Oyster Creek drywell using modern methods. This analysis will be completed prior to entering the period of extended operation.

Reactor Cavity Liner Leakage

Subcommittee Issue # 3:

Leakage through the reactor cavity liner should be eliminated.

Response:

AmerGen will perform an engineering study prior to the period of extended operation to investigate cost effective replacement or repair options to eliminate Reactor Cavity Liner leakage.

Future Monitoring Programs

Subcommittee Issue # 4:

The monitoring of drywell shell thickness should be more aggressive in the short term.

Response:

The next slide shows the breadth and frequency of monitoring activities associated with the drywell shell. These activities include inspections to monitor the condition of the drywell shell so that any additional corrosion would be detected before the existing margin was eliminated.

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Summary of Drywell Monitoring Activities During Refueling Outages

Drywell Monitoring Activities Performed During Refueling Outages	Refueling Outage Date											
	2006	2008	2010	2012	2014	2016	2018	2020	2022	2024	2026	2028
Verification of Elimination of Water Leakage Into Sand Bed Region												
1) Cavity Liner – Apply Tape & Strippable Coating	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2) Cavity Drain – Confirm Drain is Clear	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3) Cavity Drain – Monitor Flow Rate	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily
4) Sand Bed Drains – Confirm No Water	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily
Upper Drywell Shell Monitoring												
1) UT Inspections – Upper Drywell Transition Areas Inside Drywell @ 71'-6"	2 Areas	2 Areas	2 Areas	2 Areas	If corrosion is greater than the Upper Drywell locations, UTs will be continued at same frequency as the Upper Drywell 13 Locations							
2) UT Inspections – Upper Drywell 13 Locations Inside Drywell @ 87'-5", 60'-10", 51'-10", 50'-2"	100%		100%		100%		100%		100%		100%	
3) UT Inspections – Drywell Transition Areas Inside Drywell @ 23'-6"	2 Areas	2 Areas	2 Areas	2 Areas	If corrosion is greater than the Upper Drywell locations, UTs will be continued at same frequency as the Upper Drywell 13 Locations							
Sand Bed Region Shell Monitoring												
1) UT Inspections – Sand Bed 19 Locations Inside Drywell @ 11'-3"	100%		100%	Subsequent UT inspection frequency will be established as appropriate, not to exceed a 10-year interval								
2) VT Inspection of Sand Bed External Epoxy Coating and Shell to Floor Caulk Seal	All 10 Bays		At Least 3 Bays		At Least 3 Bays		10 in 10 yrs	At Least 3 Bays		At Least 3 Bays		10 in 10 yrs
3) UT Inspections – Sand Bed 106 External Locally Thinned Locations	10 Bays	10 Bays	Bay 1 & 13	2 Bays	2 Bays	2 Bays	2 Bays	2 Bays	2 Bays	2 Bays	2 Bays	2 Bays
4) VT Inspection of Drywell Shell in Trench Locations Inside Drywell	100%	100%	100%	VT Inspections will continue each outage if trenches are not restored.								
5) UT Inspection of Drywell Shell in Trench Locations Inside Drywell	626 Points	626 Points	626 Points	UT Inspections will continue each outage if trenches are not restored.								
6) Inspection for Water in Trenches	Yes	Yes	Yes	If water is not observed in trenches for 2 consecutive outages, trenches will be restored and no further inspections will be required.								
General Monitoring												
1) Structures Monitoring – Visual Inspection of Concrete Floor, Trough & Shell Inside Drywell	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2) Structures Monitoring – Visual Inspection of Sump	Yes		Yes		Yes		Yes		Yes		Yes	
3) Appendix J Test – Pressure Test and Visual Inspection of Accessible Int. and Ext. Shell Surfaces			Test					Test	Perform Test Within Ten Years of Previous Test			
4) Drywell Service Level 1 Coating Inspection Inside Drywell	Yes		Yes		Yes		Yes		Yes		Yes	
5) Structures Monitoring – Visual Inspection of Moisture Barrier between Drywell Shell and Concrete Curb Inside Drywell	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Interior Surface of the Embedded Drywell Shell

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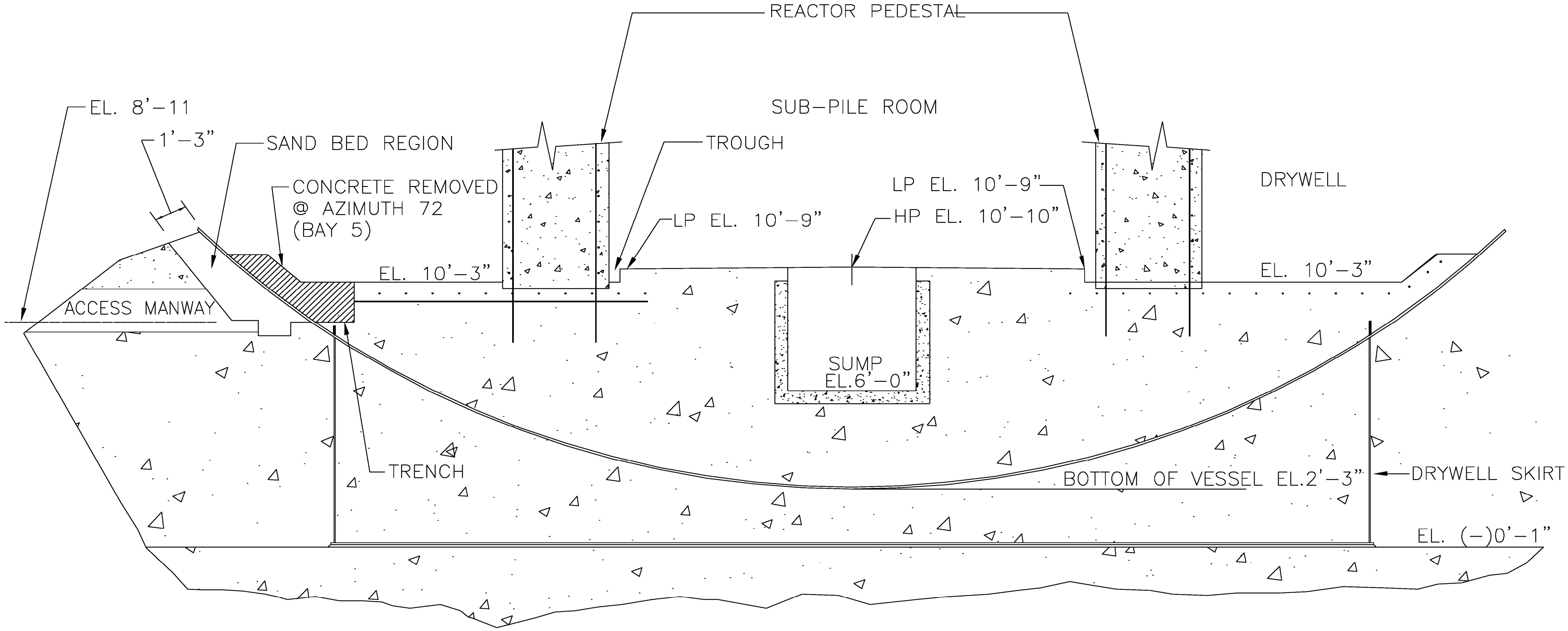
Subcommittee Issue # 5:

The trenches in the drywell floor should not be restored to the design configuration until sufficient monitoring is completed to verify corrective actions to eliminate water on the interior drywell shell have been effective.

Background:

The water source has been identified and corrective actions have been implemented. Corrosion of steel embedded in concrete is mitigated by the high pH of the water and by the passive, protective film on the steel surface.

LOWER DRYWELL-
SANDBED, TRENCH & SUMP



ELEVATION LOOKING WEST

Interior Surface of the Embedded Drywell shell

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Response to Issue # 5:

The trenches in the drywell interior floor

- Inspect during refueling outages for water.
- Visual/UT exams of shell within trenches.
- After confirming in 2 consecutive refueling outages there is no water in the trenches, restore the trenches to their original design condition.

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License Renewal Application Summary

Description of Oyster Creek

- Located in Lacey Township, Ocean County, New Jersey
- Barnegat Bay is Ultimate Heat Sink
- GE BWR 2 with Mark I Containment
- Licensed thermal power 1930 MWth
- Design electrical rating 650 MWe
- Interim Spent Fuel Storage established onsite
- Overall CDF
  - Internal events: 1.1E-05/year
  - LERF: 5.8E-07/year

Current Plant Status

- Operating license expires April 9, 2009
- Operating in 21st cycle
- Transitioned to 24 month cycles in 1991
- Completed 21st refueling outage in November 2006
- Regulatory Oversight Program (ROP) status

License Renewal Methodology

- LRA submitted July 22, 2005
- NEI 95-10 Rev. 6 Standard Format
- Prepared using NUREG 1800 (SRP) and NUREG 1801 (GALL) January 2005 draft revisions
- AmerGen prepared a reconciliation document comparing the Oyster Creek LRA to NUREGs 1800 and 1801 Rev. 1.

Aging Management Programs

- 50 GALL programs
  - 18 existing
  - 14 existing requiring enhancements
  - 18 new (10 associated with Forked River Combustion Turbines)
- 7 Plant specific programs
  - 2 existing
  - 2 existing requiring enhancements
  - 3 new (1 associated with Forked River Combustion Turbines)

Commitment Management

- 65 commitments are listed in Appendix A of the application.
- A commitment tracking number has been issued for these license renewal commitments
- An associated action containing the details was issued for each of the commitments
- Each implementing procedure is annotated to provide linkage to and preserve the details of the commitment
- Process controlled by the commitment management procedure

Status of Program Implementation

- 257 new and 111 enhanced implementation activities identified
  - 13% completed in 2006 refueling outage
  - 19% in 2008 refueling outage scope
  - 68% to be performed on-line

Summary

- Aging Management Programs are established to ensure safe operation for period of extended operation
- License renewal commitments are tracked and will be implemented as expected
- On track for completing activities prior to entering period of extended operation