

**RESPONSE TO FREEDOM OF  
INFORMATION ACT (FOIA) / PRIVACY  
ACT (PA) REQUEST**

2010-0116

9

RESPONSE  
TYPE☐

FINAL

☒

PARTIAL

REQUESTER

Mary Olson

DATE

SEP 20 2010

**PART I. -- INFORMATION RELEASED**

- ☐ No additional agency records subject to the request have been located.
- ☐ Requested records are available through another public distribution program. See Comments section.
- ☐ APPENDICES ☐ Agency records subject to the request that are identified in the listed appendices are already available for public inspection and copying at the NRC Public Document Room.
- ☒ APPENDICES ☒ P Agency records subject to the request that are identified in the listed appendices are being made available for public inspection and copying at the NRC Public Document Room.
- ☐ Enclosed is information on how you may obtain access to and the charges for copying records located at the NRC Public Document Room, 11555 Rockville Pike, Rockville, MD 20852-2738.
- ☒ APPENDICES ☒ P Agency records subject to the request are enclosed.
- ☐ Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you.
- ☒ We are continuing to process your request.
- ☐ See Comments.

**PART I.A -- FEES**

AMOUNT \*

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You will be billed by NRC for the amount listed.

☐

None. Minimum fee threshold not met.

☐

You will receive a refund for the amount listed.

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Fees waived.

\* See comments  
for details**PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE**

- ☐ No agency records subject to the request have been located.
- ☐ Certain information in the requested records is being withheld from disclosure pursuant to the exemptions described in and for the reasons stated in Part II.
- ☐ This determination may be appealed within 30 days by writing to the FOIA/PA Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Clearly state on the envelope and in the letter that it is a "FOIA/PA Appeal."

**PART I.C COMMENTS (Use attached Comments continuation page if required)**

The incoming FOIA/PA-2010-0116 request is located in ADAMS at ML100290385.

SIGNATURE - FREEDOM OF INFORMATION ACT AND PRIVACY ACT OFFICER

Donna L. Sealing

**APPENDIX P**  
**RECORDS RELEASED IN THEIR ENTIRETY**

<b>NO.</b>	<b>DATE</b>	<b>DESCRIPTION/(PAGE COUNT)/EXEMPTIONS</b>
1	Undated	Exhibit1 Erlin Hime Petro (3 Pages)
2	Undated	5.3 Exhibit 2 ACI 515.1 R (7 Pages)
3	Undated	5.3 Exhibit 3 Item #101 (1Page)
4	Undated	5.6 Exhibit 4 Surveillance (6 Pages)
5	Undated	5.7 Exhibit 1 permeability v w2c (1 Page)
6	Undated	5.8 Exhibit 7 Petrographic CTL (4 Pages)
7	Undated	6.2 Exhibit 1 Subsection IWL (14 Pages)
8	Undated	6.2 Exhibit 2 Wire Material (2 Pages)
9	Undated	6.2 Exhibit 3 Strain Along Wire (1 Page)
10	Undated	Item 136 1992 BS Event Strip Chart (1 Page)
11	Undated	EC ED 62366RO.doc (5 Pages)
12	Undated	SP 178 Rev 28 (1 Page)
13	Undated	SP 178 Rev 28 50.59 (4 Pages)
14	Undated	SP 178 Rev 28 205 (1 Page)
15	Undated	Item 108 Purge Fan Event (5 Pages)
16	Undated	Vacuum Calculation (1 Page)
17	Undated	9.1 Ex 1 FSAR Section 05_2 (6 Pages)
18	Undated	9.3 Exhibit 1 Gilbert Study 1.2.11 (11 Pages)
19	Undated	9.3 Exhibit 2 FSAR CH 2 Selected Pages (9 Pages)
20	Undated	9.3 Exhibit 4 Containment Exterior Surface (4 Pages)
21	Undated	Request #7 NRC SIT (1 page)
22	Undated	Containment Opening Tendon Removal Timeline (2 Pages)
23	Undated	R16 Tendon Detensioning Sequence (1 Page)
24	Undated	Request #9 NRC SIT (2 Pages)
25	Undated	Request #22 NRC SIT (1 Page)
26	Undated	Engineering Change Package 75220, Rv 0; REACTOR BUILDING CONCRETE PLACEMENT (321 Pages)
27	Undated	Engineering Change Package 75218, Rev 0; REACTOR BUILDING DELAMINATION REPAIR – PHASE 2 DETENSIONING TENDONS (636 Pages) <b>Information blocked out in the record was received by the NRC with information already removed.</b>
28	Undated	Engineering Change Package 75219, Rev 0; REACTOR BUILDING DELAMINATION REPAIR – PHASE 3 CONCRETE REMOVAL (179 Pages)
29	Undated	CTMT DETAIL COMPARISON.pdf (3 Pages)
30	Undated	Request 16.docx (1 Page)
31	Undated	Request 10.docx (1 Page)
32	Undated	Request 11.docx (2 Pages)
33	Undated	Petrographic Studies of Concrete for Construction Engineering Consultants (5 pages)
34	Undated	Questions pertaining to PGN procedure PT-407T, Reactor Building Concrete Examination and Testin, Revision 2 (2 Pages)
35	Undated	EC 603016 Attachment Z10R24 (1 Page)
36	Undated	NCR 358948 – part (Adverse Cond Correct & Trend Form).doc (1 Page)
37	Undated	NCR 358724 (Orginal NCR).doc (3 Pages)
38	Undated	PT0407T (Special Procedure – Rx Bldg Concrete Examination & Testing).pdf (37 Pages)
39	Undated	SP0178.pdf (207 Pages)
40	Undated	Crystal River Unit 3 Containment Delamination Investigation Report (20 pages)
41	Undated	Crystal River 3 SGR Action Plan (2 pages)

42	Undated	Licensee Drawing SC-421-036 (1 page)
43	Undated	Licensee Drawing SC421-032 (1 page)
44	<b>Undated</b>	<b>Permeability FM 5.8 Exhibit 6 (1 page)</b>
45	<b>Undated</b>	<b>Picture of crack on right edge of wall (1 page)</b>
46	3/17/10	5.2 Salt Water Related (1 Page)
47	3/17/10	5.5 Corrosion Rebar (2 Pages)
48	3/17/10	5.7 Physical Attack (2 Pages)
49	3/17/10	8.2 Thermal Stresses Containment Spray FSAR Section 5 87 (1 Page)
50	3/17/10	8.3 Effect of Faster Pressurization (1 Page)
51	3/17/10	8.4 Inadequate Concrete Structure (1 Page)
52	3/17/10	9.1 Hurricanes or Tornadoes (1 Page)
53	3/17/10	9.2 Seismic Events (1 Page)
54	3/17/10	9.3 Ground Movement (1 Page)
55	3/12/10	7.6 Vibration Due to Cutting Tendons (36 Pages)
56	3/8/10	Mar 8 PNSC De Tensioning Briefing (33 Pages)
57	3/4/10	6.1 Uneven Force Along Tendon (63 Pages)
58	3/3/10	Mar 3 PNSC De Tensioning Briefing P1 (53 Pages)
59	2/25/10	7.11 Added Stress from Pulling Tendons (30 pages)
60	2/23/10	6.3 Thermal Effects of Greasing (71pages)
61	2/19/10	7.9 Inadequate Hydro Blasting Nozzles Rate part 1 (36 pages)
62	2/19/10	7.9 Inadequate Hydro Blasting Nozzles Rate part 2 (11 pages)
63	2/19/10	7.9 Inadequate Hydro Blasting Nozzles Rate part 3 (55 pages)
64	2/19/10	7.10 Hydrodemolition Induced Cracking (80 pages)
65	2/18/10	7.8 Excessive Water Jet Pressure part 1 (34 pages)
66	2/18/10	7.8 Excessive Water Jet Pressure part 2 (18 pages)
67	2/18/10	7.8 Excessive Water Jet Pressure part 3 (53 pages)
68	2/7/10	7.2 Vibration Induced by Hydro Blasting Part 1 ( 27 pages)
69	2/7/10	7.2 Vibration Induced by Hydro Blasting Part 2 (23 pages)
70	10/6/09	Email – Subject: October 6 2009 Licensee Pictures (17 Pages)
71	2/6/10	6.4 Rigid and Flexible Sleeves (66pages)
72	2/3/10	6.6 Original Tensioning T(2) (71 pages)
73	2/2/10	6.5 Inadequate RetensioningT1 (75 pages)
74	2/1/10	Containment Pressure Testing Method.pdf (1 Page)
75	1/30/10	5.7 Exhibit 7 winter 2002-2010 (7 Pages)
76	1/29/10	Email – Subject: Detensioning sequence spreadsheets (6 Pages)
77	11/23/09	2.8 Inadequate Support of Tendons during Pouring (7 pages)
78	1/27/10	Email – From: Dyksterhouse, Don [don.dyksterhouse@pgnmail.com] to: Lake, Louis dated Wednesday, January 27, 2010 7:57 AM Subject: Design Basis Calculations Attachments: 0102-0135-02 concrete strength and elastic modulus r0 final.pdf; 0102-0135-03_r0_final.pdf; 0102-0135-04 FE Model Description signed.pdf; 0102-0135-05 Conduit Local Stress Analysis signed (2).pdf; 0102-0135-07 concrete moment capacity load r0 (2).pdf; 0102-0135-08 seismic wind tornado r0.pdf (159 Pages)
79	1/23/10	Subject: FW: Design Basis Calculations (126 pages)
80	<b>1/22/10</b>	<b>Detensioning Sequence – Case 10 (1 page)</b>
81	1/22/10	CTL 059169 Final Report.pdf (102 Pages)
82	1/20/10	2009 NRC Special Information (94 pages)

83	1/21/10	Email – From: Miller, Craig L [Craig.Miller@pgnmail.com] to Lake, Louis; Thomas, George; Carrion, Robert; 'nausdj@ornl.gov'; Souther, Martin; 'trowe@wje.com' Cc: Williams, Charles R. dated Friday, January 22, 2010 8:53 AM Subject: FW: Failure Mode 5.3 Ready for Review Attachments: FM 5.3.Maintenance.pdf; FM 5.3 Exhibit 3 - Item #101 - Purity of pressure washing water-1.pdf; FM 5.3 Exhibit 1 - Interviews regarding Maintenance -1.pdf; FM 5.3 Exhibit 2 - ACI 515.1R deleterious chemicals-1.pdf (11 Pages)
84	1/20/10	List of all questions (94 Pages)
85	1/21/10	Subject: FW: CTR Level II Schedule (3 pages)
86	1/21/10	5.3 Maintenance (1 Page)
87	1/20/10	From: Williams, Charles R. [Charles.Williams@pgnmail.com] To: Lake, Louis; Thomas, George dated Wednesday, January 20, 2010 5:16 PM Subject: FW: 01-21-10 Containment Repair Project Level 3 schedule Attachments: 01-21-10 Level 3 Rev D - 11x17.pdf (10 Pages)
88	11/23/09	8.1 and 8.5 (3 pages)
89	11/23/09	3.1 Inadequate Air Content (2 pages)
90	10/5/09	Crystal River 3 Nuclear Condition Report Summary – NCRs Initiated Since Sep 28, 2009 (1 page)
91	10/5/09	10/6/09 Crystal River 3 Nuclear Safety Review Committee Handout Page (1 page)
92	1/20/10	5.3 Exhibit 1 Interviews Regarding Maintenance (1 Page)
93	1/18/10	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] to: Lake, Louis; Thomas, George dated Monday, January 18, 2010 4:18 PM Subject: FW: 01-19-10 Containment Repair Project Level 3 schedule Attachments: 01-19-10 Level 3 Rev D - 11x17.pdf (12 Pages)
94	1/17/10	Email – From: Williams, Charles R. To: Lake, Louis; Thomas, George [Charles.Williams@pgnmail.com] dated Sunday, January 17, 2010 9:28 AM Subject: FW: 01-18-10 Containment Repair Project Level 3 schedule Attachments: 01-18-10 Level 3 Rev D - 11x17.pdf (12 Pages)
95	1/16/10	Email – From: Miller, Craig L [Craig.Miller@pgnmail.com] To: Lake, Louis; Thomas, George; Carrion, Robert; 'trowe@wje.com'; Sealey, Mac Cc: Williams, Charles R. dated Saturday, January 16, 2010 1:24 PM Subject: RE: Failure Mode 2.6 for Review and Comment Attachments: FM 2.6 Exhibit 3 Cylinder Tests exterior wall 28 days.pdf; FM 2.6 Exhibit 4c Petrographic Mactec 2009-11-11.pdf; FM 2.6 Exhibit 4a Petrographic Erlin Hime May 1976.pdf; FM 2.6 Exhibit 4b Petrographic CTL.PDF; FM 2.6 Exhibit 5 - Strength and Modulus of Elasticity-Core Samples.pdf (31 Pages)
96	1/16/10	Email – From: Miller, Craig L [Craig.Miller@pgnmail.com] To: Lake, Louis; Thomas, George; Carrion, Robert; 'trowe@wje.com'; Sealey, Mac Cc: Williams, Charles R. dated Saturday, January 16, 2010 1:19 PM Subject: Failure Mode 2.6 for Review and Comment Attachments: FM 2.6.pdf; FM 2.6 Exhibit 1 - Law Engineering mix design tests.pdf; FM 2.6 Exhibit 2 - pour cards from bay RBCN-0015.pdf (52 Pages)

97	1/16/10	Email – From: Miller, Craig L [Craig.Miller@pgnmail.com] To: Miller, Craig L; Lake, Louis; Thomas, George; Carrion, Robert; 'trowe@wje.com' Cc: Williams, Charles R. dated Saturday, January 16, 2010 1:15 PM Subject: RE: Failure Mode 5.1 for Review and Comment Attachments: FM 5.1 Exhibit 6a - Petrographic Mactec 2009-12-08.pdf (13 Pages)
98	1/16/10	From: Miller, Craig L [Craig.Miller@pgnmail.com] to: Miller, Craig L; Lake, Louis; Thomas, George; Carrion, Robert; 'trowe@wje.com' Cc: Williams, Charles R. dated Saturday, January 16, 2010 1:14 PM Subject: RE: Failure Mode 5.1 for Review and Comment Attachments: FM 5.1 Exhibit 4 -report on concrete placement-Pour528RBElev103.pdf; FM 5.1 Exhibit 5 - Law Engineering Tests Aggregates only.pdf; FM 5.1 Exhibit 6b - Petrographic Erlin Hime June 1976.pdf (7 Pages)
99	1/16/10	Email – From: Miller, Craig L [Craig.Miller@pgnmail.com] To: Lake, Louis; Thomas, George; Carrion, Robert; 'trowe@wje.com' Cc: Williams, Charles R. dated Saturday, January 16, 2010 1:10 PM Subject: RE: Failure Mode 5.1 for Review and Comment Attachments: FM 5.1.pdf; FM 5.1 Exhibit 1 - SP5618 and JAJ-W5 clean forms.pdf; FM 5.1 Exhibit 2 - QC Procedures_PTL-10.pdf; FM 5.1 Exhibit 3 - Pour528RB-NCR213 sand in joints.pdf (12 Pages)
100	1/16/10	Email – From: Miller, Craig L [Craig.Miller@pgnmail.com] to Portmann, Rick; Lake, Louis; Thomas, George; Ghosal, Partha S.; Carrion, Robert; 'nausdj@ornl.gov' Cc: Williams, Charles R. dated Saturday, January 16, 2010 12:53 PM Subject: Failure Mode 6.2 for Review and Comment Attachments: FM 6.2.pdf; FM 6.2 Exhibit 1 Subsection IWL.pdf; FM 6.2 Exhibit 2 Wire Material from DBD11-2-1.pdf; FM 6.2 Exhibit 3 Strain along Wire.pdf; FM 6.2 Exhibit 3 Strain along Wire.pdf; FM 6.2 Exhibit 4 Wire Surveillances.pdf; FM 6.2 Exhibit 5 Wire Testing-1.pdf; FM 6.2 Exhibit 6 atlas 947613_0001.pdf (35 Pages)
101	1/14/10	Email - From: Williams, Charles R. [Charles.Williams@pgnmail.com] to Lake, Louis; Thomas, George dated Thursday, January 14, 2010 3:28 PM Subject: FW: 01-15-10 Containment Repair Project Level 3 schedule (11 Pages)
102	1/14/10	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] To: Lake, Louis; Thomas, George dated Thursday, January 14, 2010 7:16 AM Subject: FW: 01-14-10 Containment Repair Project Level 3 schedule (13 Pages)
103	1/13/10	5.1 Contamination during construction (2 pages)
104	1/13/10	Email – From: Williams, Charles R. to Lake, Louis; Thomas, George [Charles.Williams@pgnmail.com] dated Wednesday, January 13, 2010 10:46 AM Subject: FW: 01-13-10 Containment Repair Project Level 3 schedule (13 Pages)
105	1/12/10	Email – From: Thomas, George To: Naus, Dan J. Cc: Lake, Louis dated Tuesday, January 12, 2010 3:59 PM Subject: FW: Petrographic Report (17 Pages)

106	1/12/10	From: Thomas, George to: Naus, Dan J. Cc: Lake, Louis dated Tuesday, January 12, 2010 3:57 PM Subject: FW: Petrographic Report (19 Pages)
107	1/12/10	Email - From Thomas, George to Naus, Dan J. Cc: Lake, Louis dated Tuesday, January 12, 2010 3:56 PM Subject: FW: Petrographic Report Attachments: S&ME Modulus Core 16, 40, 63, 65, 66.pdf; S&ME Density Core 16, 40, 60, 63, 65, 66.pdf; S&ME Compressive Core 31 and 45.pdf; S&ME Compressive Core 59.pdf) (22 Pages)
108	1/11/10	5.4 Concrete Form Release (1 Page)
109	1/11/10	Email - From: Williams, Charles R. [Charles.Williams@pgnmail.com] to Lake, Louis; Thomas, George; 'nausdj@ornl.gov'; Carrion, Robert; Souther, Martin; 'Archer, John C. (Reading)'; 'Wells, Richard P. (Reading)' Cc: Miller, Craig L dated Monday, January 11, 2010 5:53 PM Subject: FM 5.8 Ex 5b Draft for Review (8 Pages)
110	1/11/10	Email - From: Williams, Charles R. To: Lake, Louis; Thomas, George; Carrion, Robert; 'nausdj@ornl.gov'; Souther, Martin; 'Archer, John C. (Reading)'; 'Wells, Richard P. (Reading)' Cc: Miller, Craig L [Charles.Williams@pgnmail.com] dated Monday, January 11, 2010 5:49 PM Subject: FM 5.8 Draft for Review Attachments: FM 5.8 Exhibit 3b Petrographic CTL.pdf; FM 5.8 Exhibit 3c Petrographic Mactec 2009-11-11.pdf; FM 5.8 Exhibit 4 WC ratio RB-15.pdf; FM 5.8 Exhibit 5a Petrographic Mactec 2009-12-23.pdf; FM 5.8 Exhibit 6 permeability v w2c from Mehta.pdf; FM 5.8 Exhibit 7 Petrographic CTL.pdf; FM 5.8 Exhibit 8 - ASR test report - PII.pdf; FM 5.8 Exhibit 9 ASTM C1260.pdf; FM 5.8.pdf; FM 5.8 Exhibit1 ACI 201.2R-01 Durability.pdf; FM 5.8 Exhibit 2 Mix Design- from Dome Repair Report-cgp.pdf; FM 5.8 Exhibit 3a Petrographic Erlin Hime May 1976.pdf (32 Pages)
111	1/11/10	Email - From: Williams, Charles R. [Charles.Williams@pgnmail.com] to Lake, Louis; Thomas, George; 'nausdj@ornl.gov'; Carrion, Robert; Souther, Martin; 'trowe@wje.com' dated Monday, January 11, 2010 5:42 PM Subject: FM 5.4 Draft for Review Attachments: FM 5.4 Exhibit 2 - QC Procedures_PTL-10.pdf; FM 5.4 Exhibit 3 - Pour712RBElev210.pdf; FM 5.4.pdf; FM 5.4 Exhibit 1 - Forms - SP5618 Placiment of Structural Concrete.pdf (7 Pages)
112	1/11/10	Email - From: Williams, Charles R. To: Lake, Louis; Thomas, George; Carrion, Robert; 'nausdj@ornl.gov'; 'daniel.fiorello@exeloncorp.com'; Lese, Joseph A. Cc: Miller, Craig L [Charles.Williams@pgnmail.com] dated Monday, January 11, 2010 5:38 PM Subject: FM 4.7 Draft for Review Attachments: FM 4.7 Exhibit 4 - Pour Location Drawing Buttress 6-1 and 3-4 color.pdf; FM 4.7.pdf; FM 4.7 Exhibit 1 - Break Test Summary - core v original table.pdf; FM 4.7 Exhibit 2 Cylinder Tests exterior wall 28 days.pdf; FM 4.7 Exhibit 3 - Concrete .pdf (21 Pages)
113	1/8/10	Email - From: Dyksterhouse, Don [don.dyksterhouse@pgnmail.com] To: Thomas, George Cc: Dyksterhouse, Don; Lake, Louis dated Friday, January 08, 2010 8:17 AM Subject: Approved calculations Attachments: 0102-0135-jlh-2 Radial Pressure at Tendons r0_signed.pdf; Approved January 6 0102-0135-01 effective elastic modulus r0.pdf (29 Pages)

114	1/7/10	Email – Subject: Spauling Pictures, Attachments: Spauling 010.jpg; Spauling 001.jpg to Spauling 009.jpg (21 Pages)
115	1/7/10	Email - From: Chou, Rich To: Powell, Sid Cc: Franke, Mark; Lake, Louis; Sykes, Marvin; Morrissey, Thomas; Reyes, Rogerio dated Thursday, January 07, 2010 11:53 AM Subject: FW: Wednesday NCRs (4 Pages)
116	1/6/10	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] To: Lake, Louis; Thomas, George; 'nausdj@ornl.gov'; Carrion, Robert; Souther, Martin; 'trowe@wje.com' Cc: Miller, Craig L dated Wednesday, January 06, 2010 4:51 PM Subject: FM 5.5 - Corrosion of Rebars and Sleeves Attachments: FM 5.5 - Corrosion Rebars and Sleeves.pptx; FM 5.5 Exhibit 1 Permeability v w2c from Mehta.pdf; FM 5.5 Exhibit 2 Mix Design- from Dome Repair Report-cgp.pdf; FM 5.5 Exhibit 3a Petrographic Erlin Hime May 1976-1.pdf; FM 5.5 Exhibit 3b Petrographic CTL.pdf; FM 5.5 Exhibit 3c Petrographic Mactec 2009-11-11.pdf; FM 5.5 Exhibit 4 WC ratio RB-15.pdf; FM 5.5 Exhibit 5 Cover detail - Plan 421-036-SH000.pdf; FM 5.5 Exhibit 6 Cover photos.pdf (20 Pages)
117	1/5/10	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] to Lake, Louis; Thomas, George; 'nausdj@ornl.gov'; Carrion, Robert; Worthington, Wayne; 'Archer, John C. (Reading)' Cc: Miller, Craig L; Edwards, Steven dated Tuesday, January 05, 2010 7:50 AM Subject: FW: FM 3.7 - Inadequate Testing Attachments: FM 3.7.pptx; FM 3.7 Exhibit 1 - field testing from specs - SP5618.pdf; FM 3.7 Exhibit 2 QC sp5569 Furnishing of Structural Concrete.pdf; FM 3.7 Exhibit 3 QC Procedures_PTL-10.pdf; FM 3.7 Exhibit 4 QC in Pour712RBElev210.pdf; FM 3.7 Exhibit 5 Pour 511RB-NCR95 Concrete temperature.pdf; FM 3.7 Exhibit 6 Fc in Pour712RBElev210.pdf; FM 3.7 Exhibit 7 tickets for Pour712RBElev210.pdf; FM 3.7 Exhibit 8 S00-0047 Concrete Strength.pdf; FM 3.7 Exhibit 9 Cylinder Tests exterior wall 28 days.pdf; FM 3.7 Exhibit 10 - Slump allowed - Final Dome Report.pdf (63 Pages)
118	1/4/10	Email – Subject: Schedule (17 Pages)
119	1/4/10	CR3 Outage Containment Repair Project – Level 3 Schedule (16 Pages)
120	1/4/10	6.2 Inadequate Tendon (2 Pages)
121	1/1/10	5.5 Exhibit 2 Mix Design from Dome Repair (1 Page)
122	1/1/10	5.5 Exhibit 3a Petrographic Erlin Hime May 19 (3 Pages)
123	1/1/10	5.5 Exhibit 1 Permeability v w2c from Mehta (1 Page)
124	12/31/09	Email – From: Williams, Charles R. Charles.Williams@pgnmail.com] To: Lake, Louis; Thomas, George; 'nausdj@ornl.gov'; Carrion, Robert; Miller, Craig L dated Thursday, December 31, 2009 5:20 PM Subject: FM 9.3 Draft and Exhibits for Review Attachments: FM 9.3 Exhibit 2 FSAR Ch 2 Selected Pages.pdf; FM 9.3 Exhibit 3 Glenn-Craig email.pdf; FM 9.3 Exhibit 4 Containment Exterior Surface Survey Data.pdf; FM 9.3.pptx; FM 9.3 Exhibit 1 Gilbert Study Section 1.2.11.pdf (27 Pages)

125	12/31/09	Email – From: Williams, Charles R. to Lake, Louis; Thomas, George; 'nausdj@ornl.gov'; Carrion, Robert; Pugh, C-Glenn; 'daniel.fiorello@exeloncorp.com' [Charles.Williams@pgnmail.com] dated Thursday, December 31, 2009 4:43 PM Subject: Emailing: FM 1.6 Exhibit 3 FSAR Ch 2 Selected Pages.pdf, FM 1.6.pptx, FM 1.6 Exhibit 1 Gilbert Study Section 1.2.11.pdf, FM 1.6 Exhibit 2 Containment Exterior Surface Survey Data.pdf Attachments: FM 1.6 Exhibit 3 FSAR Ch 2 Selected Pages.pdf; FM 1.6.pptx; FM 1.6 Exhibit 1 Gilbert Study Section 1.2.11.pdf; FM 1.6 Exhibit 2 Containment Exterior Surface Survey Data.pdf (27 Pages)
126	12/31/09	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] to: Lake, Louis; Thomas, George; Carrion, Robert; 'nausdj@ornl.gov'; Pugh, C-Glenn; 'daniel.fiorello@exeloncorp.com' dated Thursday, December 31, 2009 4:37 PM Subject: FM 1.5 Draft for Review Attachments: FM 1.5.pptx; FM 1.5 Exhibit 1 Glenn-Craig email.pdf; FM 1.5 Exhibit 2 Containment Exterior Surface Survey Data.pdf; FM 1.5 Exhibit 3 RB Foundation Settlement discussion per FSAR.pdf (9 Pages)
127	12/31/09	Email - From: Williams, Charles R. [Charles.Williams@pgnmail.com] to Lake, Louis; Thomas, George; Carrion, Robert dated Thursday, December 31, 2009 2:52 PM Subject: FW: Fm 5.2 Draft for Review Attachments: FM 5.2 Exhibit 2 - Mactec PetrographicReport-Final NO PHOTOS.pdf (17 Pages)
128	12/31/09	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] to: Lake, Louis; Thomas, George; Carrion, Robert dated Thursday, December 31, 2009 2:51 PM Subject: FW: Fm 5.2 Draft for Review Attachments: FM 5.2.pptx; FM 5.2 Exhibit 3 - CTL Petrographic Report.pdf; FM5.2 Exhibit 1 - Erlin Hime Petro report.pdf (16 Pages)
129	12/29/09	Email – Subject: Revised engineering/repair work flow chart (2 Pages)
130	12/28/09	Email – From: Thomas, George To: Lake, Louis Cc: Khanna, Meena; Franke, Mark; Farzam, Farhad; Carrion, Robert; Masters, Anthony; nausdj@ornl.gov dated Monday, December 28, 2009 6:15 PM Subject: CR-3 Schedule and Root Cause Failure Modes Update as of 12-28-09 Attachments: 12-28-09 Level 3 Rev D - 11x17.pdf; 12-28-09 Root Cause Update.pdf; Failure Modes CR3, Rev.11 122809.ppt (18 Pages)
131	12/28/09	12-28-09 Level 3 Rev D -11x17.pdf (16 Pages)
132	12/28/09	Engg Repair Work Flow 12-28-09.pdf (1 Page)
133	12/23/09	5.8 Exhibit 5a Petrographic (3 Pages)
134	12/22/09	Email – From: Orf, Tracy to Lake, Louis dated Tuesday, December 22, 2009 6:31 AM Subject: FW: CR3 Updated Root Cause Information Attachments: 2009 Dec 18 - Root Cause Update for NRC.pptx (2 Pages)
135	12/21/09	Email – Subject: FW: CR3 Containment Repair Project Level 1 Schedule Attachments: 12-16-09 Level 1 Rev C - 11x17.pdf (2 pages)



136	12/18/09	From: Miller, Craig L [Craig.Miller@pgnmail.com] To: Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert Cc: Williams, Charles R. dated Friday, December 18, 2009 4:47 PM Subject: Draft FM 3.5 for Review Attachments: FM 3.5.pptx; FM 3.5 x 1 SP5569 specs admixtures-1.pdf; FM 3.5 x 2 - mix designs -1.pdf; FM 3.5 x 3 - admixtures in pour ticket -1.pdf; FM 3.5 x 4 - Air graph 1.pdf; FM 3.5 x 5 - Erlin Hime Petro report.pdf; FM 3.5 x 6 - CTL Petrographic Report.pdf; FM 3.5 x 7 - Mactec Petrographic Report.pdf (19 Pages)
137	12/18/09	Email – From: Miller, Craig L [Craig.Miller@pgnmail.com] to Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert Cc: Williams, Charles R. dated Friday, December 18, 2009 4:44 PM Subject: Draft FM 3.2 for Review Attachments: FM 3.2.pptx; FM 3.2 x 1 - Break Test Summary - core v original table.pdf; FM 3.2 x 2 - SP5618 grout specs.pdf; FM 3.2 x 3 - grout and concrete batching - FPC Procedure W112 .pdf; FM 3.2 x4 - Pour data summary CR3.pdf; FM 3.2 x 5 - joint photos.pdf (20 pages)
138	12/18/09	Email – From: Miller, Craig L [Craig.Miller@pgnmail.com] to: Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert Cc: Williams, Charles R. dated Friday, December 18, 2009 4:41 PM Subject: Draft FM 2.9 for Review Attachments: FM 2.9 x 1 - Pour406RB-NCR98.pdf; FM 2.9.pptx (6 Pages)
139	12/17/09	From: Jones, Tai [Brandy.Jones@pgnmail.com] To: Lake, Louis dated Thursday, December 17, 2009 12:44 PM Subject: CR3 Open Requests Attachments: Open Requests.pdf (65 Pages)
140	12/28/09	Failure Modes of CR-3 Containment Concrete Delamination Issue (16 pages)
141	12/17/09	Email – From: Lake, Louis [Louis.Lake@pgnmail.com] To: Lake, Louis dated Thursday, December 17, 2009 12:05 PM Subject: FW: CR3 Containment Repair Project Level 1 Schedule Attachments: 12-16-09 Level 1 Rev C - 11x17.pdf (2 Pages)
142	12/17/09	Email – From: Williams, Charles R. to Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert Cc: Miller, Craig L [Charles.Williams@pgnmail.com] dated: Thursday, December 17, 2009 11:19 AM Subject: Draft FM 2.2 for Review Attachments: FM 2.2 .pptx; FM2.2 x 1 - pump and bucket - Pour729RB.pdf; FM2.2 x 2 - SP5618.pdf; FM2.2 x 3 - Pour data summary CR3.pdf; FM2.2 x 4 - photos.pdf; FM2.2 x 5 - Pour528RBElev103-joints.pdf; FM2.2 x 6 pouring in Pour712RBElev210.pdf (18 Pages)
143	12/28/72	Reactor Equipment Building Access Opening (5 pages)
144	12/16/09	Email – From: Fagan, Paul [Paul.Fagan@pgnmail.com] to Lake, Louis dated Wednesday, December 16, 2009 6:10 PM Subject: FW: 12-16-09 Containment Repair Project Level 3 schedule Attachments: 12-16-09 Level 3 Rev B - 11x17.pdf (15,Pages)
145	12/15/09	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] To: Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert Cc: Miller, Craig L dated Tuesday, December 15, 2009 11:31 AM Subject: Draft Refute 9.2 for Review Attachments: FM 9.2.ppt; Pages from FSAR Section 05.pdf (2 Pages)

146	12/15/09	Email - From: Williams, Charles R. to Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert Cc: Miller, Craig L [Charles.Williams@pgnmail.com] dated Tuesday, December 15, 2009 11:28 AM Subject: FM 9.1 Draft for Review Attachments: FM 9.1.ppt; Pages from FSAR Section 05_2.pdf (8 Pages)
147	12/14/09	Email - From: Fagan, Paul [Paul.Fagan@pgnmail.com] To: 'lakelf@bellsouth.net'; Lake, Louis Cc: Miller, Garry dated Monday, December 14, 2009 11:14 AM Subject: Emailing: 2009 Dec 11 - Root Cause Update for NRC.pptx Attachments: 2009 Dec 11 - Root Cause Update for NRC.pptx (3 Pages)
148	12/14/09	Email - From: Franke, Mark to: Lake, Louis dated Monday, December 14, 2009 7:42 AM Subject: FW: CR3 Root Cause Information Attachments: 2009 Dec 11 - Root Cause Update for NRC.pptx (2 Pages)
149	12/14/09	Email - From: Orf, Tracy to: Lake, Louis dated Monday, December 14, 2009 7:32 AM Subject: FW: CR3 Root Cause Information Attachments: 2009 Dec 11 - Root Cause Update for NRC.pptx (2 Pages)
150	1/23/09	2.7 Inadequate Vibration During Pour (3 pages)
151	12/11/09	Email - From: Williams, Charles R. to Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert Cc: Miller, Craig L [Charles.Williams@pgnmail.com] dated Friday, December 11, 2009 4:14 PM Subject: FM 2.11 for Review Attachments: FM 2.11[1].pptx; FM2.11 x 6 - core strength.pdf; FM2.11 x 4 - Pour data summary CR3.pdf; FM2.11 x 1 - Pour528RBElev103-joints.pdf; FM2.11 x 2 - SP5618 5 01.6.pdf; FM2.11 x 3 - SP5618 4 01.2.pdf; FM2.11 x 5 - photos.pdf (19 Pages)
152	12/11/09	5.2 Exhibit 2 Mactec Petrographic (16 Pages)
153	12/11/09	Email - Subject: Information Request #52 (2 Pages)
154	12/11/09	Email - Subject: Emailing: !NRC Request #55 Information.docx Attachments: !NRC Request #55 Information.docx (2 pages)
155	Undated	Horizontal Tendons Pages 26-39 (14 pages)
156	9/16/09	PSC Field and Quality Control Manual (130 Pages)
157	12/10/09	2009 NRC Special Inspection - RB Concrete Separation (85 pages)
158	12/10/09	Email - Subject: mailing: !Request #7_NRC SIT Question#1 Information.docx Attachments: R16 Tendon Detensioning sequence.pdf; Z23R5 PSC Field and Quality Control Manual1.pdf; Containment Opening - Tendon Removal Timeline.xlsx; !Request #7_NRC SIT Question#1 Information.docx (134 Pages)
159	12/10/09	Email - Subject: Emailing: !Request #9_NRC SIT Question#3 Information.docx Attachments: !Request #9_NRC SIT Question#3 Information.docx (3 pages)
160	12/10/09	Subject: Emailing: !Request #9_NRC SIT Question#3 Information.docx Attachments: !Request #24_NRC SIT Question#18 Information.docx; !Request #9_NRC SIT Question#3 Information.docx (6 pages)
161	12/10/09	Email - Subject: Emailing: NRC Request 12 Response.docx Attachments: NRC Request 12 Response.docx (2 pages)
162	2/4/09	5.6 Exhibit 5 Surveillance Conclusion (2 pages)
163	2/4/09	5.6 Exhibit 8 Cap Grease Leakage (1 page)

164	12/10/09	Email – Subject: Emailing: Response to NRC Request 23.pdf Attachments: NCR 0035872410 text.docx; Response to NRC Request 23.pdf (8 pages)
165	12/10/09	Email – Subject: Emailing: IRequest #25_NRC SIT Question#19 Information - Rev 1.docx Attachments: RO-16 IWL Exam Reports.pdf; IRequest #25_NRC SIT Question#19 Information - Rev 1.docx (31 pages)
166	12/10/09	Email - Subject: Emailing: Request 29 Question 23 Response (3).docx Attachments: Request 29 Question 23 Response (3).docx (2 pages)
167	12/10/09	<b>Email from Lake, Louis to Dan Naus, Lake, Louis, Masters, Anthony, Robert Carrion, Thomas, George, dated Thursday, December 10, 2009, 7:43 AM</b> <b>Subject: Emailing: 12-3_All questions.pdf; Attachments: 12- 3_All questions.pdf (86 pages)</b>
168	12/10/09	<b>Email from Lake, Louis to Thomas, George dated Thursday, December 10, 2009 8:25 AM</b> <b>Subject: FW: Emailing: PresconFieldInstallationManual.tif</b> <b>Attachements: PresconFieldInstallationManual.tif (53 pages)</b>
169	12/8/09	Email – From: Orf, Tracy to Lake, Louis dated Tuesday, December 08, 2009 6:29 AM Subject: FW: Updated CR3 Root Cause Chart Attachments: Root Cause Update for NRC.pptx (2 Pages)
170	12/8/09	5.1 Exhibit 6A Petrographic Mactec (12 Pages)
171	12/8/09	5.8 Exhibit 5b Petrographic (7 Pages)
172	9/21/07	5.6 Exhibit 3 Grease Replacement (9 Pages)
173	12/4/09	Email – From: Souther, Martin [martin.souther@pgnmail.com] to: Lake, Louis Cc: Fagan, Paul dated Friday, December 04, 2009 12:25 PM Subject: Requested Information Attachments: Request for Information - Core #54 Attachments.pdf; Request for Information - Core #54.docx (14 Pages)
174	12/4/09	Email – Subject: Requested Information core #54 (14 Pages)
175	12/4/09	Email – Subject: FW: Requested Information, Attachments: Request for Information – Core #54 Attachments.pdf; Request for Information – Core #54.docx (14 Pages)
176	12/3/09	Email – Subject Inspection Questions (86 Pages)
177	12/2/09	Email From: Chou, Rich to: Lake, Louis Cc: Franke, Mark; Sykes, Marvin; Ninh, Son; Morrissey, Thomas; Reyes, Rogerio; Chou, Rich; Powell, Sid dated Wednesday, December 02, 2009 9:02 AM Subject: FW: Monday NCRs Attachments: 0015_insideAverage Moblity.jpg; Nov 21 markup - Containment Unfolded Graphics_IR Mosaic.pdf (4 Pages)
178	12/1/09	Email – From : Williams, Charles R. [Charles.Williams@pgnmail.com] to Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert Cc: Miller, Craig L dated Tuesday, December 01, 2009 4:29 PM Subject: RE: Draft Refute 8.2 for Review Attachments: Pages from FSAR Section 05.pdf (3 Pages)
179	12/1/09	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] to: Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert dated Tuesday, December 01, 2009 3:01 PM Subject: Draft Refute 8.3 for your Review Attachments: FM 8.3.pptx; SP-178 Rev 28 (tmp) 205.pdf; Pages from SP-178 Rev 28 (tmp) 1.pdf; SP-178 Rev 28 - 50.59 Screen.pdf; EC-ED 62366RO.doc (13 Pages)

180	12/1/09	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] to Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert dated Tuesday, December 01, 2009 2:27 PM Subject: RE: Draft Refute 8.4 For review Attachments: FM 8.4.pptx; Selected Pages from S07-0033.pdf; IWL of 10-25-09.pdf (60 Pages)
181	12/1/09	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] To: Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert dated Tuesday, December 01, 2009 2:18 PM Subject: Draft Refute 8.2 for Review Attachments: FM 8.2.pptx; Item 176 - 1992 BS event - RB temperature info.pdf; CR3 FSAR Section 5 87.pdf; CR3 FSAR Section 5 86.pdf (5 Pages)
182	12/1/09	Email – From: Chou, Rich To: Powell, Sid Cc: Franke, Mark; Sykes, Marvin; Morrissey, Thomas; Reyes, Rogerio; Lake, Louis; Chou, Rich; Ninh, Son dated Tuesday, December 01, 2009 9:39 AM Subject: FW: Monday NCRs Attachments: 368472.pdf; 368282.pdf; 368351.pdf; 368389.pdf; 368470.pdf (6 Pages)
183	11/30/09	Email – From: Williams, Charles R. To: Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert [Charles.Williams@pgnmail.com] dated Monday, November 30, 2009 2:48 PM Subject: RE: Draft Refute 4.2 for Review Attachments: FM4.2 .ppt; Erlin Hime Petro report 05101976.pdf; Core Bore #5 Final CTL Petrographic Report 059169 C856.1.pdf; Pour743RBElev240-daily concrete curing and form removal.pdf; Pour362RB-concrete curing log.pdf; Pour362RB-daily concrete curing and form removal.pdf; Pour522RBElev98-concrete curing log.pdf; Pour522RBElev98-curing and form removal record.pdf; Pour528RBElev103-daily concrete curing and form removal.pdf; Pour642RB-concrete curing log.pdf; Pour642RB-curing and form removal record.pdf; Pour743RBElev240-concrete curing log.pdf (28 Pages)
184	11/30/09	Email - From: Williams, Charles R. to Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert [Charles.Williams@pgnmail.com] dated Monday, November 30, 2009 2:02 PM Subject: Draft Refute 4.1 for Review Attachments: FM 4.1.pptx; Pour743RBElev240-daily concrete curing and form removal.pdf; Pour362RB-concrete curing log.pdf; Pour362RB-daily concrete curing and form removal.pdf; Pour522RBElev98-concrete curing log.pdf; Pour522RBElev98-curing and form removal record.pdf; Pour528RBElev103-daily concrete curing and form removal.pdf; Pour642RB-concrete curing log.pdf; Pour642RB-curing and form removal record.pdf; Pour743RBElev240-concrete curing log.pdf (11 Pages)
185	11/30/09	Email – From: Williams, Charles R. To: Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert [Charles.Williams@pgnmail.com] dated Monday, November 30, 2009 1:23 PM Subject: Draft Refute 2.5 for review Attachments: FM 2.5.pptx; Ambient v concrete temp bay 15 ver 3.pdf; Ambient v concrete temp bay 12 ver 2.pdf; Ice in Pour263RB.pdf; all strength table.pdf; all strength graph.pdf; 7 and 28 day strength.pdf (14 Pages)

186	11/30/09	Email – From: Lake, Louis to Dan naus; Lake, Louis; Masters, Anthony; Carrion, Robert; Thomas, George dated Monday, November 30, 2009 1:17 PM Subject: Emailing: Failure Modes CR3, Rev.6 111809 NRC pkg no Rs.ppt Attachments: Failure Modes CR3, Rev.6 111809 NRC pkg no Rs.ppt (17 Pages)
187	11/30/09	Email – From: Williams, Charles R. To: Lake, Louis; Thomas, George; nausdj@ornl.gov; Carrion, Robert [Charles.Williams@pgnmail.com] dated Monday, November 30, 2009 1:00 PM Subject: Prelim Refute 2.4 Document for Review Attachments: FM 2.4.pptx; Pour743RBElev240-daily concrete curing and form removal.pdf; Pour362RB-concrete curing log.pdf; Pour362RB-daily concrete curing and form removal.pdf; Pour522RBElev98-concrete curing log.pdf; Pour522RBElev98-curing and form removal record.pdf; Pour528RBElev103-daily concrete curing and form removal.pdf; Pour642RB-concrete curing log.pdf; Pour642RB-curing and form removal record.pdf; Pour743RBElev240-concrete curing log.pdf; Fc over time butt 3-4.pdf; Fc develop butt 1-6.pdf; Fc develop butt 3-4.pdf; Fc over time butt 1-6.pdf (11 Pages)
188	11/30/09	Email – Subject: Emailing: Failure Modes CR3, Rev.6 111809 NRC pkg no Rs.ppt Attachments: Failure Modes CR3, Rev.6 111809 NRC pkg no Rs.ppt (17 Pages)
189	11/27/09	Item 176 1992 BS event RB temperature (4 Pages)
190	11/24/09	Email – From: Souther, Martin [martin.souther@pgnmail.com] To: Lake, Louis Cc: Fagan, Paul; Miller, Garry dated Tuesday, November 24, 2009 8:06 AM Subject: 2009 Nov 23 - Containment Unfolded Graphics_IR Mosaic.pptx Attachments: 2009 Nov 23 - Containment Unfolded Graphics_IR Mosaic.pptx (3 Pages)
191	11/24/09	Email – From: Williams, Charles R. to: Lake, Louis; Thomas, George; nausdj@ornl.gov [Charles.Williams@pgnmail.com] dated Tuesday, November 24, 2009 7:19 AM Subject: Refute 8.5 for Review Attachments: FM 8.5.ppt; Vacuum Calculation.doc; Item 108 - Purge Fan Event.pdf (7 Pages)
192	11/24/09	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] to: Lake, Louis; Thomas, George; nausdj@ornl.gov dated Tuesday, November 24, 2009 7:17 AM Subject: Refute 8.1 for Review Attachments: FM 8.1.ppt; Item 115 - 1992 BS event.pdf; Item 136 - 1992 BS event - strip chart annotated.pdf; 1992 BS Actuation.pdf (81 Pages)
193	11/24/09	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] to: Lake, Louis; Thomas, George; nausdj@ornl.gov dated Tuesday, November 24, 2009 7:16 AM Subject: Refute 3.3 for Review Attachments: FM 3.3.ppt; PTL Test Cement 04011974.pdf; mill cert 04021974.pdf; all strength table.pdf; 7 and 28 day strength.pdf; all strength graph.pdf; Erlin Hime Petro report 05101976.pdf; Core Bore #5 Final CTL Petrographic Report 059169 C856 (2).pdf (27 Pages)

194	11/24/09	Email – From: Williams, Charles R. [Charles.Williams@pgnmail.com] to Lake, Louis; Thomas, George; nausdj@ornl.gov Cc: Herrin, Dennis W. dated Tuesday, November 24, 2009 7:12 AM Subject: Refute 3.1 for Review Attachments: FM 3.1.ppt; Exhibit 4 - Graph of air from tickets.pdf; Exhibit 1 - Erlin Hime Petro report 05101976.pdf; Exhibit 2 - Core Bore #5 Final CTL Petrographic Report 059169 C856.pdf; Exhibit 3 - pour ticket samples - Pour666RBElev160.pdf (8 Pages)
195	11/24/09	Email – From: Williams, Charles R. To: Lake, Louis; Thomas, George; nausdj@ornl.gov Cc: Herrin, Dennis W. [Charles.Williams@pgnmail.com] dated Tuesday, November 24, 2009 7:10 AM Subject: Refute 2.8 for Review Attachments: FM 2.8.ppt; Picture 013.jpg; 4 jan 73 emailsize.jpg; 5 april 73.bmp.jpg; DSC04768.JPG; DSC04776.JPG; Picture 006.jpg (8 Pages)
196	11/24/09	Email From: Williams, Charles R. [Charles.Williams@pgnmail.com] To: Lake, Louis; Thomas, George; nausdj@ornl.gov Cc: Herrin, Dennis W. dated Tuesday, November 24, 2009 7:08 AM Subject: Refute 2.7 for Review Attachments: FM 2.7.ppt; Pour729RB-mechanical vibration.pdf; Pour362RB-mechanical vibration.pdf; Pour528RBElev103-mechanical vibration.pdf; Pour674RB-mechanical vibration.pdf; Pour713RB-mechanical vibration.pdf; Erlin Hime Petro report 05101976.pdf; Core Bore #5 Final CTL Petrographic Report 059169 C856 (2).pdf; Interview Willie Easman.doc (24 Pages)
197	11/24/09	Email - From: Williams, Charles R. to: Lake, Louis; Thomas, George; nausdj@ornl.gov Cc: Herrin, Dennis W. [Charles.Williams@pgnmail.com] dated Tuesday, November 24, 2009 7:02 AM Subject: Refute 2.3 for Review Attachments: FM 2.3.ppt; Slump in Bay 15 v2.pdf; all strength graph.pdf; Original construction Pour Data.pdf; Slump in Bay 12 v2.pdf (12 Pages)
198	11/24/09	Email From: Williams, Charles R. [Charles.Williams@pgnmail.com] To: Lake, Louis; Thomas, George; nausdj@ornl.gov dated Tuesday, November 24, 2009 6:56 AM Subject: Refute document 2.1 and Exhibits Attachments: FM 2.1.ppt; Pour642RB-curing and form removal record.pdf; Pour743RBElev240-concrete curing log.pdf; Pour743RBElev240-daily concrete curing and form removal.pdf; Pour362RB-concrete curing log.pdf; Pour362RB-daily concrete curing and form removal.pdf; Pour522RBElev98-concrete curing log.pdf; Pour522RBElev98-curing and form removal record.pdf; Pour528RBElev103-daily concrete curing and form removal.pdf; Pour642RB-concrete curing log.pdf (12 Pages)
199	11/24/09	Email – Attachments: Response to NDT Question from NRR.pdf 059169_NDT Qualification Letter_11-11-09.pdf Request 10.docx Request 11.docx Request 16.docx (20 Pages)
200	11/24/09	Email – Subject: FW: 2009 Nov 23 - Containment Unfolded Graphics_IR Mosaic.pptx Attachments: 2009 Nov 23 - Containment Unfolded Graphics_IR Mosaic.pptx (3 Pages)

201	11/24/09	Email – Subject: FW: Refute 3.3 for Review Attachments: FM 3.3.ppt; PTL Test Cement 04011974.pdf; mill cert 04021974.pdf; all strength table.pdf; 7 and 28 day strength.pdf; all strength graph.pdf; Erlin Hime Petro report 05101976.pdf; Core Bore #5 Final CTL Petrographic Report 059169 C856 (2).pdf (22 pages)
202	Undated	Appendix Slides (15 pages)
203	11/24/09	Email – Subject: FW: Refute 8.5 for Review Attachments: FM 8.5.ppt; Vacuum Calculation.doc; Item 108 - Purge Fan Event.pdf (7 Pages)
204	11/24/09	Email – Subject: FW: Refute 2.8 for Review Attachments: FM 2.8.ppt; Picture 013.jpg; 4 jan 73 emailsize.jpg; 5 april 73.bmp.jpg; DSC04768.JPG; DSC04776.JPG; Picture 006.jpg (338 pages)
205	11/24/09	Email – Subject: Refute 3.1 for Review (20 Pages)
206	11/24/09	Email – Subject: FW: Refute 2.7 for Review Attachments: FM 2.7.ppt; Pour729RB-mechanical vibration.pdf; Pour362RB-mechanical vibration.pdf; Pour528RBElev103-mechanical vibration.pdf; Pour674RB-mechanical vibration.pdf; Pour713RB-mechanical vibration.pdf; Erlin Hime Petro report 05101976.pdf; Core Bore #5 Final CTL Petrographic Report 059169 C856 (2).pdf; Interview Willie Easman.doc (26 pages)
207	11/24/09	Email – Subject: Containment Graphic (3 Pages)
208	8/15/07	Select pages from S07-0033 (42 Pages)
209	11/19/09	Email – From: Thomas, George To: Carrion, Robert; Masters, Anthony; Farzam, Farhad; Ashar, Hansraj; Sheikh, Abdul Cc: Khanna, Meena; Lake, Louis dated Thursday, November 19, 2009 11:28 AM Subject: Presentation made to PNSC (39 Pages)
210	3/2/06	2005 ILRT.pdf (303 Pages)
211	11/18/09	Email – Subject: Information Request #52 and #55 (3 Pages)
212	11/18/09	Email From: Carrion, Robert to: Lake, Louis dated Wednesday, November 18, 2009 3:53 PM Subject: Extra Files (19 Pages)
213	11/17/09	Email – From: Franke, Mark to: Kennedy, Kriss Cc: McCree, Victor; Reyes, Luis; Lake, Louis; Carrion, Robert; Khanna, Meena; Saba, Farideh; Sykes, Marvin; Wert, Leonard; Munday, Joel dated Tuesday, November 17, 2009 4:39 PM Subject: Crystal River containment repair plan update (38 Pages)
214	11/16/09	2009 Nov 16 – PNSC – Repair Update_FINAL.pdf (37 Pages)
215	8/31/98	Subject: Crystal River IWE/IWL Tendon Layout Drawings (13 Pages)
216	11/14/09	Email – Subject: Photos of Core #5 (4 Pages)
217	11/13/09	Email – Subject: MacTec Petrographic Report (46 Pages)
218	11/13/09	059169_NDT Qualification Letter_11-11-09.pdf (2 Pages)

219	11/13/09	Email – From: Thomas, George to nausdj@ornl.gov Cc: Farzam, Farhad; Lake, Louis; Carrion, Robert; Masters, Anthony dated Friday, November 13, 2009 2:16 PM Subject: MacTec Petrographic Report (46 Pages)
220	11/13/09	Email – From Thomas, George to nausdj@ornl.gov Cc: Farzam, Farhad; Lake, Louis; Carrion, Robert dated Friday, November 13, 2009 2:06 PM Subject: CTL Petrographic Report on one core (12 Pages)
221	2/11/97	6.5 Exhibits 5 (646 pages)
222	8/10/76	5.1 Exhibit 6b Petrographic Erlin Hime (4 Pages)
223	11/12/09	2009 Nov 12 – Containment Unfolded Graphics_IR Mosaic.pptx (2 Pages)
224	12/10/76	Crystal River Unit 3 – Florida Power Corporation: Reactor Building Dome Delamination Report (196 pages)
225	2/16/73	5.4 Exhibit 3 Pour712RBelev210 (1 Page)
226	11/12/09	Email - From Orf, Tracy To: Lake, Louis dated Thursday, November 12, 2009 7:05 AM Subject: FW: CR3 Information Update (4 Pages)
227	11/12/09	Email – Subject: Information Request #50, #58, and #49 (7 Pages)
228	11/11/09	5.5 Exhibit 3c Petrographic (5 Pages)
229	11/11/09	5.8 Exhibit 3c Petrographic (5 Pages)
230	11/9/09	Email – Subject: Additional inspection questions (1 Page)
231	11/9/09	Email – Subject: Information Request #44, #45, #46, #47, # 48, #51, #54, #56, and #57 (11 Pages)
232	10/xx/72	5.1 Exhibit 2 Pour QC procedures (1 Page)
233	11/6/09	Containment Unfolded Buttress 2 to 5 (1 page)
234	10/xx/72	5.4 Exhibit 2- QC Procedures (2 pages)
235	11/5/09	Email – Subject: Additional inspection questions (1 Page)
236	11/5/09	2009 Nov 5 – NRC Telecon Briefing.pdf (9 Pages)
237	11/5/09	Crystal River unit #3 Containment Update by Garry Miller (9 pages)
238	11/4/09	Email – Subject: CR3 Status Meeting (7 Pages)
239	7/28/72	5.1 Exhibit 4 report on concrete placement (1 Page)
240	11/2/09	5.2 Exhibit 3 CTL Petrographic (11 Pages)
241	3/13/72	5.1 Exhibit 3 Pour 528RB (5 Pages)
242	10/30/09	2009 Oct 30 – Root Cause Analysis Metrics.pptx (1 Page)
243	10/29/09	2009 Oct 29_NRC Copy_Containment Delamination.pptx (18 Pages)
244	10/29/09	5.6 Exhibit 7 Grease Photos (3 Pages)
245	10/29/09	Email – Subject: Responses to NRC questions database set up (1 Page)
246	10/29/09	Condition Assessment (29Oct09).doc (1 Page)
247	10/28/09	Interview Cliff Peters Gary Geotsch (1 Page)
248	10/27/09	Summary of Results From Comparison.pdf (3 Pages)
249	10/26/09	Email From Franke, Mark to Saba, Farideh Cc: Carrion, Robert; Khanna, Meena; Chan, Terence; Lake, Louis dated Monday, October 26, 2009 2:55 PM, Subject: Crystal River NDE plan (38 Pages)
250	10/24/09	Interview Gary Geotsch (1 Page)
251	3/18/69	5.1 Exhibit 5 Law Engineering Tests (1 page)
252	10/23/09	IWL of 10-25-09 (16 Pages)
253	10/23/09	Subject: October 23 2009 Containment Picture (1 Page)
254	10/23/09	Subject: IWL/IWE Program information (601 Pages)
255	10/22/09	9.3 Exhibit 3 Glenn Craig (1 Page)
256	10/20/09	Email – Subject: October 20 2009 containment pictures (8 Pages)
257	10/18/09	Email – Subject: October 18 2009 Core bore pictures (17 Pages)



258	10/16/09	Photos; Picture007.jpg, Picture008.jpg, Picture009.jpg, Picture010.jpg, Picture014.jpg, Picture021.jpg, Picture022.jpg, Picture023.jpg (4 pages)
259	10/15/09	Subject: October 15 2009 Containment Pictures (37 Pages)
260	10/15/09	Subject: October 15 2009 Crack pictures (8 Pages)
261	1/22/09	5.1 Exhibit 1 SP 56178 and JAJ (3 pages)
262	10/14/09	Photos; Picture021.jpg, Picture022.jpg, Picture023.jpg, Picture024.jpg, Picture025.jpg, Picture026.jpg, Picture027.jpg, Picture028.jpg, Picture029.jpg, Picture030.jpg, Picture031.jpg, Picture032.jpg, Picture033.jpg, Picture034.jpg, Picture035.jpg, Picture036.jpg, Picture037.jpg, Picture038.jpg, Picture039.jpg, Picture040.jpg, Picture041.jpg, Picture042.jpg, Picture043.jpg, Picture044.jpg, Picture046.jpg, Picture048.jpg, Picture050.jpg, Picture051.jpg, Picture052.jpg, Picture054.jpg, Picture055.jpg, Picture056.jpg (16 pages)
263	1/22/09	5.4 Exhibit 1- Forms – SP5618 (2 pages)
264	10/13/09	Crystal River 3 Nuclear Condition Report Summary –NCRs Initiated Since Oct 12, 2009 (1 page) <u>Contact:</u> Dennis W. Herrin, Lead Engineer Progress Energy Florida
265	10/8/09	E-Mail from Reyes to Reyes, Briefing Talking Points (2 pages)
266	Undated	Adverse Condition Investigation Form, CAP-NGGC-0200-3-18 (28 pages)
267	11/16/09	Presentation to PNSC Containment Update & Discussion of Repair Options (7 pages)
268	1/18/10	Cr3 NPC Outage Containment Repair Project – Level 3 Schedule (11 pages)
269	Undated	Photo (2 pages)