



Innovative Expo 2018:

Saving Utilities Time and Money through:
Critical Path * Dose Reduction * PCE Reductions
at PWR/BWR Sites
Using InstaCote™ ML-2 for Reactor Cavity Decon

Presented by:

Rick McCormick, Master-Lee Decon Services
Steven Szymanski, PSEG Salem Rad Pro “Retired”



Introduction

- * This presentation details the utilities critical path time and cost reduction for outages at PWR and BWR through critical path, dose, and PCE reductions.
- * It is intended as a template for applying and removing the InstaCote™ ML-2 to PWR or BWR Reactor Cavities with the understanding that all Reactor Cavities are not all standard in size, configuration, or material makeup.



How Much Can your Site Save?

Critical Path Savings

- * Typical **Rub and Scrub Cavity Decon** is scheduled between **6 to 12 hours** of critical path time depending on the site identified goals, “without a known end result”.
- * Typical **InstaCote Cavity Decon** is scheduled at **4 – 5 hours** either on critical path or off critical path “with a known end result”. Removal is typically 2 hours off critical path.
- * How much does a “critical path hour” equate to at your site? **\$50K per hour?**
- * Do the math! If you only save 2 – 3 hours of critical path time, it pays for itself!

Dress Out Requirements

- * Typical Rub and Scrub Cavity Decon – Reassembly crews are required to dress in double PC's and PAPR's which can cause heat stress and reduced stay times (decreased efficiency).
- * Typical post InstaCote ML-2 application – Reassembly crews dress requirements are relaxed due to dramatically lower loose surface contamination levels. No respiratory protection required (increased efficiency).
- * Reduced radwaste (PC's, gloves, shoe covers, etc.)

continued

PCE's

- * Typical Rub and Scrub Cavity Decon may or may not meet site identified goals and does not address “hot particle removal”.
- * Typical InstaCote Cavity Decon reduces PCE's and “hot particle” issues (time required for paperwork to write up worker).

Dose

- * With less time expended on cavity decon and to have a known end result and reduced crew size, overall dose is reduced for decon crew and reassembly crew.
- * \$\$\$ Savings – multiply that over 5 or 6 outages per unit – a significant savings!



Agenda

Introduction – Time & Cost Reduction through:

- * *Critical Path Savings*
- * *Dose Reduction*
- * *PCE Reduction*

How Much Can Your Site Save?

- * *Site Goals – Critical Path, Dose Goals, PCE Reduction Goals while minimizing dress requirements*

What is InstaCote™ ML-2?

Purpose of Utilizing InstaCote™ ML-2

- * Reduce Loose Surface Contamination through encapsulation (“known end result”)
- * Reduce dress out and respiratory protection requirements (post application)
- * Increase productivity and efficiency for reactor disassembly/reassembly

Measurements of Success

- * Initial contamination levels (typically mRad smearable)
- * Quicker cavity decon (4 – 5 hours)
- * Smaller crew size (compared to conventional methods)
- * Post InstaCote ML-2 application (typically <50kdpm/100cm²)
- * Repeat successes (gets better each outage)

Agenda continued

InstaCote™ ML-2 Equipment

- * Portable (fits through personnel airlocks equipment hatch)
- * Self contained mobile trailers (air compressor and generator on board)

Prior to InstaCote™ ML-2 Application

- * material, duct tape, and masking gathered before cavity decon begins

Masking the Reactor Cavity

- * typically 2 – 3 hours after water is removed by site decon

Application Process

- * typically 2 – 3 hours depending on size of cavity

InstaCote™ ML-2 Removal

- * typically 2 hours at most sites (off critical path)

Pre InstaCote™ ML-2 Survey Data

- * provided by PSEG Salem (2014 & 2017)

Post InstaCote™ ML-2 Survey Data

- * provided by PSEG Salem (2014 & 2017)

Questions/Discussions



What is InstaCote™ ML-2

- * InstaCote™ ML-2 can be defined as:
 - * A 2 part pure polyurea coating/elastomer which is derived from the reaction product of a polyisocyanate component (part “A”) and an amine-terminated resin blend (part “B”).
 - * The reaction of the 2 components yields a urea linkage which formulates into InstaCote™ ML-2.
 - * Once the formulation occurs, the InstaCote™ ML-2 is dry/tack free in ~30 to ~60 seconds.



Purpose

The purpose for using the InstaCote™ ML-2 varies depending on a particular plants needs. Some examples are:

- * Critical Path Savings
- * Preventing leakage of water from the sandbox or NI covers (PWR) or from the seal plate or covers during reactor cavity flooding and refueling operations.
- * General Cavity Decontamination
- * Smaller Crew Size (ALARA)
- * Reduce PCE's for reactor disassembly/reassembly due to lower contamination levels



Measurements of Success

- * Critical Path Savings.
- * No leakage, or a minimization of leaks, during refueling activities.
- * Based on 20+ years of historical survey data, RP has reduced PPE and respiratory requirements for reactor disassembly and/or reassembly.
- * Reduction in Dose and PCE's during reactor cavity decon and head disassembly/reassembly activities.
- * Reduction in hot particle activity.



Measurements of Success continued

- * The personnel exposure limits will be lower due to the fast process of the InstaCote™ ML2 application (dries in <30 seconds), and smaller crew size.
- * The InstaCote™ ML2 process provides a significantly greater decontamination (DF) of the reactor cavity compared to other methods currently employed at other sites.
- * InstaCote™ ML2 can be removed off of critical path!



InstaCote™ ML-2 Equipment

Graco E-30 application proportioner.



Drums of the two part InstaCote™ ML-2.





InstaCote™ ML-2 Equipment continued



InstaCote™ ML-2 spray gun. The tip of the gun is where the InstaCote™ ML-2 is created.



InstaCote™ ML-2 Equipment continued

Step-down transformer used to convert house current (480 V 60 amp 3-phase) to power the E-30 application proportioner. Per the ML procedure section 6.1.0 the correct power outlet will be identified and verified available.





InstaCote™ ML-2 Equipment continued

Operable plant service air of between 90 to 120 psi at 20 scfm (standard cubic feet per minute) will be dedicated to the InstaCote™ ML-2 application equipment.

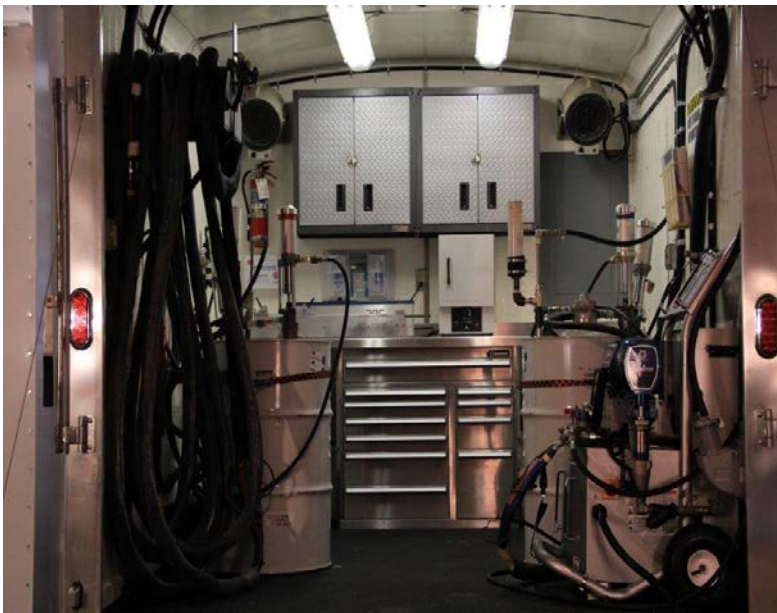


Note the “Caution” tag
hung by Operations
Department



InstaCote™ ML-2 Equipment continued

Master-Lee Decon Services, Inc. Self Contained Equipment Trailer





Cavity Preparation

HEPA units are used to minimize the amount of paint fumes and overspray released onto the refuel floor, suction should be just below the edge of the cavity (a minimum of 2 HEPA units is recommended).





Prior to InstaCote™ ML-2 Application

- * Provide input to reactor services and scheduling (3 – 6 months out)
- * Pre-Job Brief
- * Discuss RWP in detail
- * ALARA brief
- * Discuss the use of Human Performance
Tools (STAR, 2 Minute Drill, Situational Awareness, Etc.)
- * Discuss goals and expectations
- * Discuss responsibilities and roles
- * Emphasize safety and discuss back out criteria



Masking the Reactor Cavity

Pre-staging material prior to entry into the cavity is very important. Duct tape, razor knives and the masking material in sufficient quantities to accomplish the task in one continuous effort.

Masking material for
covering





Applicator Dress Out

InstaCote ML-2 spray applicator being suited up in a 2 piece air supplied fed hood before the application of the InstaCote™. A one piece bubble suit would also provide cooling from the air fed hood over the whole body and is recommended if available.





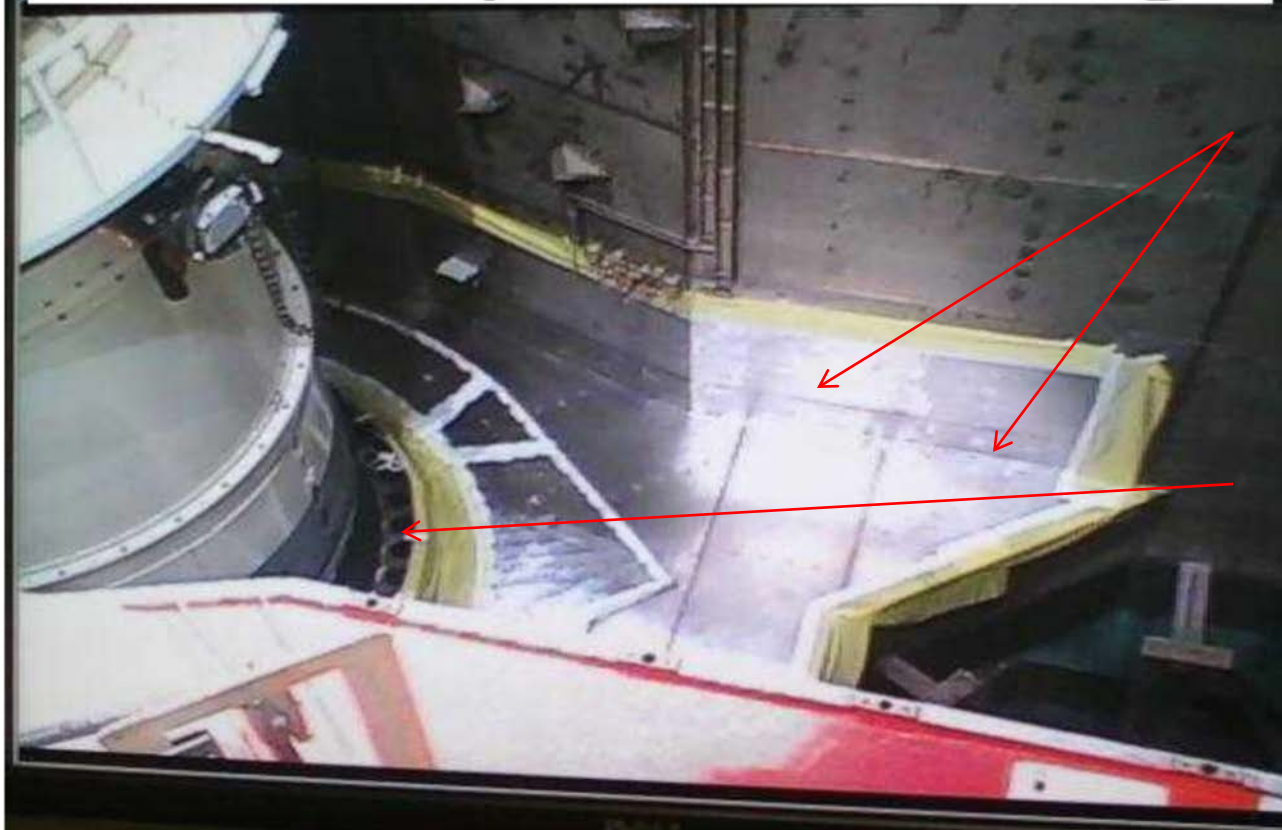
Typical InstaCote Crew Size

- * MLDS typically utilizes **9 – 10** personnel for InstaCote reactor cavity decon.
- * MLDS utilizes 4 personnel to mask the cavity & topside support.
- * MLDS utilizes 2 personnel to spray the cavity.
- * MLDS utilizes 1 operator to run the equipment.
- * A minimum of 5 MLDS personnel are top side cavity support to include responsibilities of:
 - Tending the application hose.
 - Tending the communication line.
 - Tending the breathing air lines.
 - Providing real time MDI air sampling for air quality concerns.



Masking the Reactor Cavity (PWR)

Reactor Cavity Masked For Coating



Walls and Lower
Cavity masked prior
to applying
InstaCote™ ML-2.

Reactor Head
masked prior to
applying
InstaCote™ ML-2.



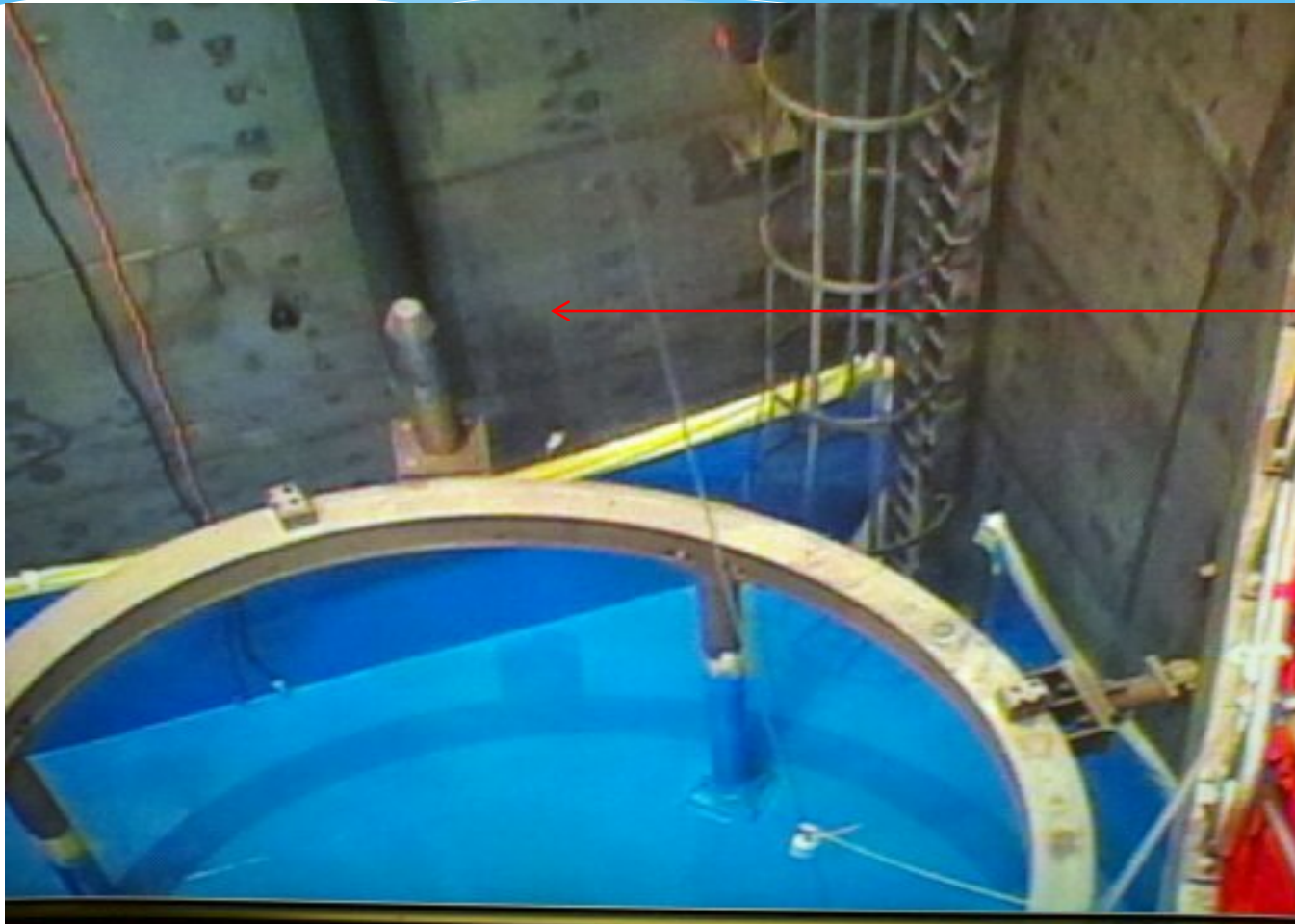
Application Process (PWR)

InstaCote In Progress





Application Process (PWR)



HEPA hose
employed to
minimize paint
fumes on the
floor



Application Process (BWR)

FME Cover and Cavity Masked Before Spraying



Walls 6' height masked prior to applying InstaCote™ ML-2.

Reactor Vessel covered for FME purposes prior to applying InstaCote™ ML-2.

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Application Process (BWR)

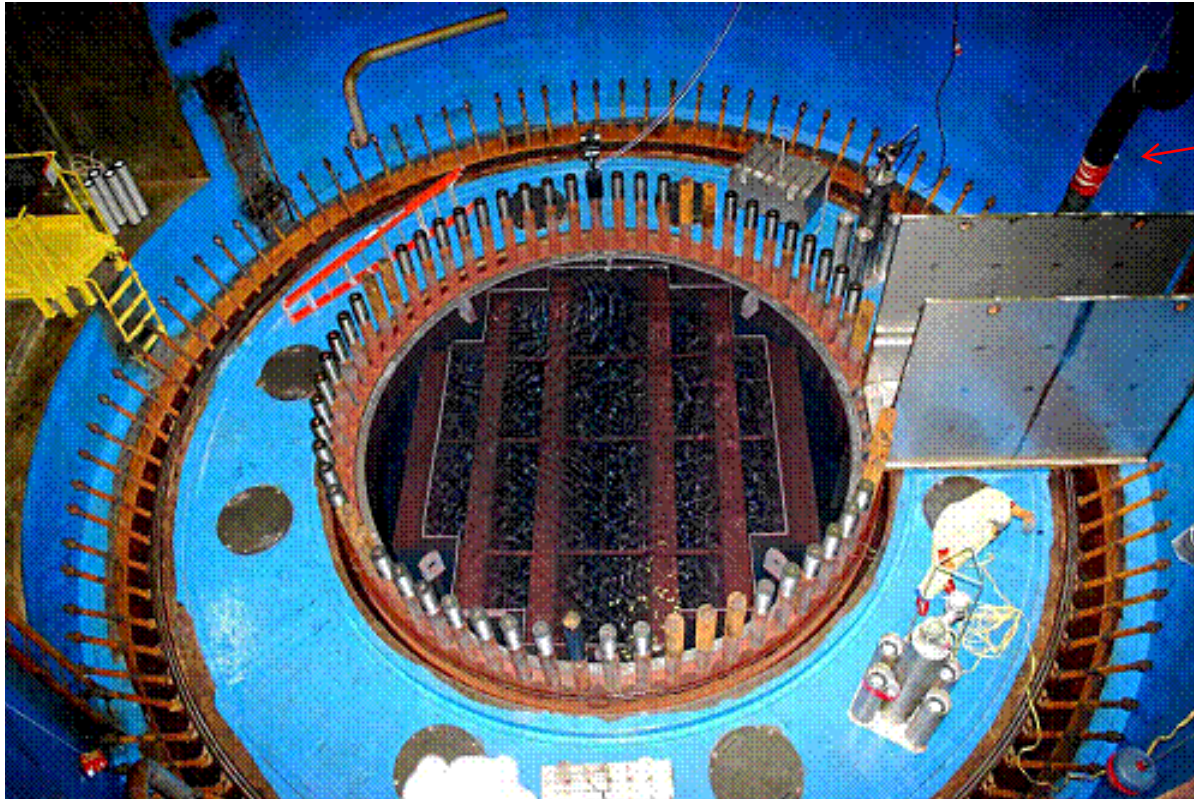
InstaCote In Progress



10/31/2007 2:26:41 PM



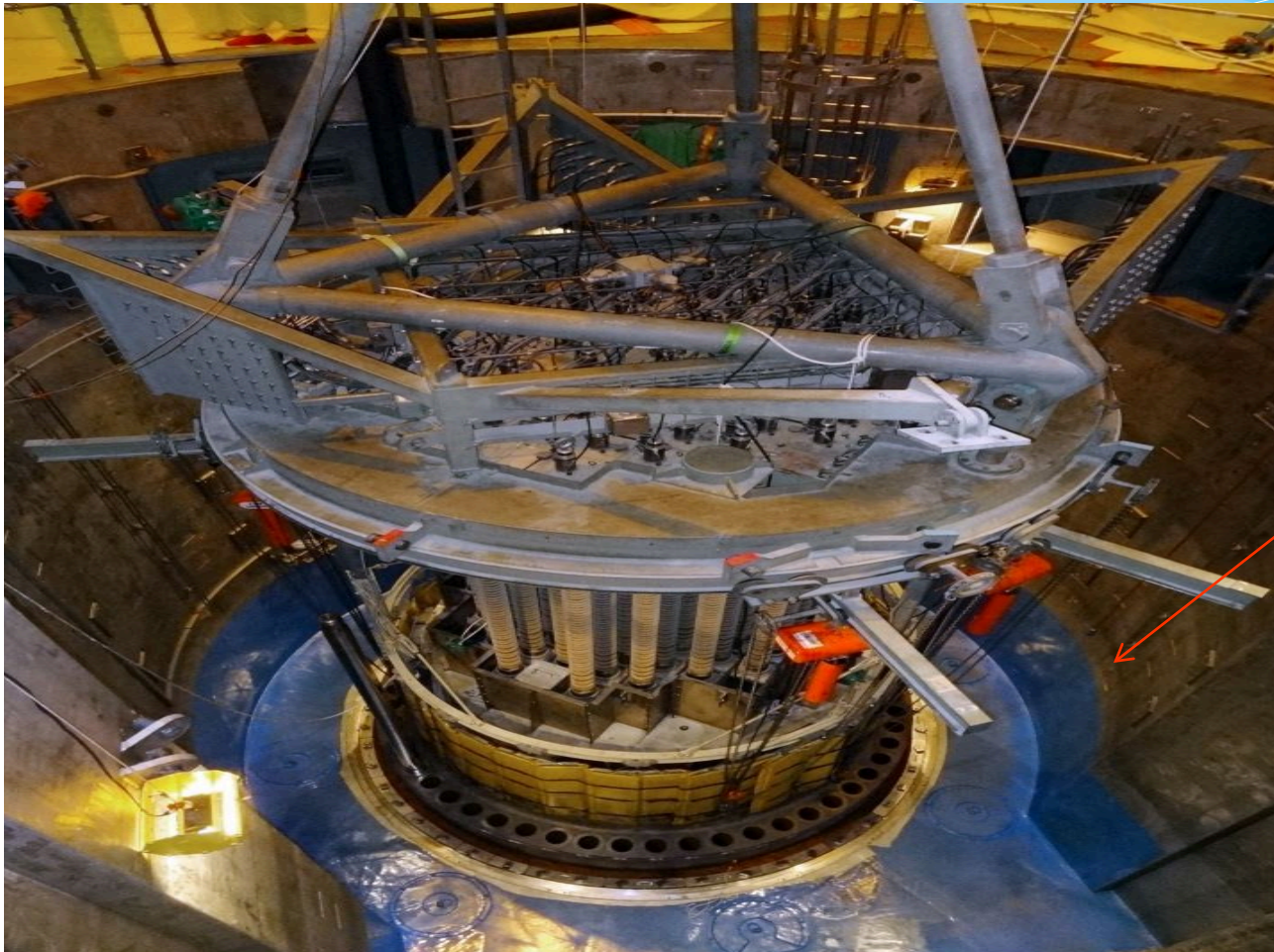
Application Process (BWR) continued



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floor



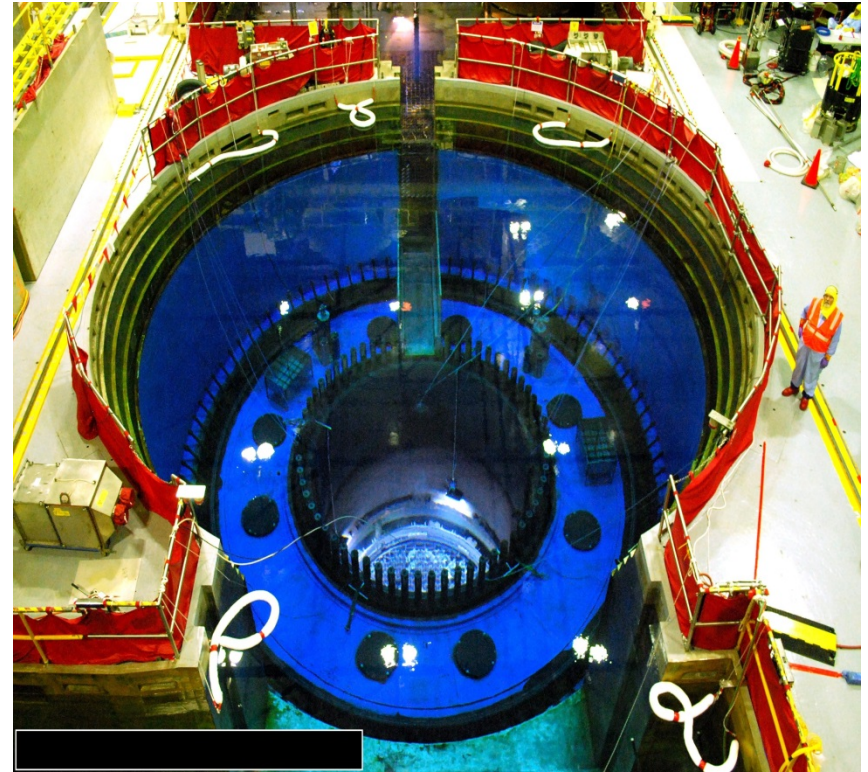
Completion of PWR Reactor Cavity



InstaCote™ ML-2 applied 6' up the cavity walls and floor including sandbox and NI covers.



Completion of BWR Reactor Cavity





InstaCote™ ML-2 Removal

Prior to the InstaCote™ ML-2 removal process, the following materials should be staged on the refuel floor:

- * Large Radiological trash bags
- * Duct tape to seal the bags
- * Razor Knives
- * Kevlar Gloves



InstaCote™ ML-2 Removal continued

Wall Removal



Floor Removal



Initial Survey

Salem GENERATING STATION		Radiological Survey		MAP #	2213019Q
Location: S2 CTMT 130' Rx CAVITY (UPPER)				Date: 06/29/14	Time: 0315
Radiation Survey					
Y	Instrument	Serial#	2967		
Y	Instrument	Serial#	4842		
Contamination Survey					
B.y	Instrument	Serial#	4842		
Radiation Survey (mR/hr)					
Loc	Knee	Chest	Head		
1	15	15	20		
2	15	15	*30		
3	40	25	30		
4	40	20	30		
5	40	25	25		
6	30	20	30		
7	10	10	12		
8	10	10	15		
Contamination B.y					
LOC	dpm/100cm ²	mRad/hr			
1	20	20			
2	16	16			
3	16	16			
4	24	24			
5	16	16			
6	8	8			
7	40	40			
8	8	8			
COMMENTS: CTMT POSTED: RA/CA CAVITY POSTED PRE-SURVEY HRA/IR/HCA/HPZ/NEW RPA CAVITY POSTING CHANGED POST HRA/HCA/HPZ/NEW RPA ①-⑩ 1624 mRad Print EVA ARES-DETERDING Sign: [Signature] Technician Review				Inside of Carbon Ring 150 B' 200 C 80 B' 80 38m COPY 1000 B' C 160 B' 30 C/m 50 C 10 30 C/m CORNER WALL 5' VP 1000 B' C 280 B' 30 C/m 50 C * 30 30 C/m	
Print / Sign Clawson Clawson				DATE: 06/29/14 Print / Sign Supervisor Review DATE:	

Post InstaCote Application Survey

Salem GENERATING STATION		Radiological Survey		MAP #	2213019
Location: S2 CTMT 130' Rx CAVITY (UPPER)		Date: 6-29-2014	Time: 0700	RWP: 1	
Radiation Survey CTMT POSTED: RA, CA, NEW RPA RX UPPER CAVITY POST: HRA, NEW RPA, HCA RX LOWER CAVITY LOCKED & POSTED: HRA > 15R/HR, HCA, LPZ					
γ	Instrument ROZ	Serial# 3010			
γ	Instrument T-POLE	Serial# 6613-012			
Contamination Survey					
β, γ	Instrument E140	Serial# 1453			
α	Instrument SAC 4	Serial# 0560			
Contamination β, γ					
LOC	dpm/100cm ²	LOC	dpm/100cm ²		
1	< 1 K	11	< 1 K		
2		12			
3		13			
4		14			
5		15			
6		16			
7		17			
8		18			
9		19			
10	< 1 K	20	< 1 K		
Survey Type		Contamination α			
		LOC	ccpm	dpm/100cm ²	
N/A	Clean Area	21	3	940K	
N/A	Routine	22	21	59200K RPP	
N/A	Monthly				
N/A	S.O.J.			N/A	
X	Other				
Surveyed By:					
Print ROBERT P. REYNOLDS					
Sign <i>Robert P. Reynolds</i>					
COMMENTS:					
POST RX CAVITY DEEMED					
SURVEY FOR DOWN POSTING					
NO HOT PARTICLES DETECTED					
RX HEAD INSTALLED - NOT TENSIONED					
SMIERS 16-20 TAKEN ON PAINTED WALL - RESULTS < 1 K dpm/100cm ²					
Technician Review			Supervisor Review		
NAME Gordon H. A. Nelson	BADGE # 0806	NAME	BADGE #	DATE:	

21 LADDER HANDRAIL
40 K dpm/100cm²

22 LADDER TREAD
4 mrad/hr

40 CH
420 F
ON SEAL

45 CH
400 F
ON SEAL

COPY

CH = CHEST
F = FLOOR

□ Dose Rate, mRem/hr

○ Smear Location

Initial Survey

Radiological Survey		MAP #	2213019
Location: S2 CTMT 130' RX CAVITY (UPPER)		Date: 5/21/17	Time: 2300
			RWP: 26
Radiation Survey			
Y	Instrument	Serial#	
	TPole	6612-129	
Y	Instrument	Serial#	
	TPole	6612-043	
Contamination Survey			
B.Y	Instrument	Serial#	
	LUD 9	316391	
α	Instrument	Serial#	
	LUD 2360	312773	
Contamination B.y			
LOC	mRad dpm/100cm ²	LOC	dpm/100cm ²
1	540	N	
2	450		
3	810		
4	162		
5	450		
6	990		
7	198		
N			
Survey Type		Contamination α	
N	Clean Area	LOC	ccpm
	Routine	2	80
	Monthly	3	114
A	S.O.J.	4	17
X	Other	5	30
Surveyed By:			
Print DAVID PEEVES / VANLIND CHASE			
Sign <i>[Signature]</i> / <i>[Signature]</i>			
COMMENTS: INITIAL ENTRY POST DRAIN DOWN PRE-DECON SURVEY			
CONTAMINATION α			
LOC	ccpm	dpm/100cm ²	
6	75	446	
7	48	286	
Technician Review			
Print / Sign		DATE:	Supervisor Review
J. MALINA <i>[Signature]</i>		5-22-17	Alex Johns / <i>[Signature]</i>
			DATE: 5/22/17

CTMT POSTED: RA, CA
CAVITY POSTED: LHRA, HCA, DRP, NRP
(LOCKED WITH 2C1)

Rx POWER: 0%

Post InstaCote™ ML-2 Survey

Radiological Survey				MAP # 2213019																																													
Location: S2 CTMT 130' Rx CAVITY (UPPER)				Date: 5/22/17																																													
				Time: 1000																																													
				RWP: 25																																													
POST INSTA-COTE SURVEY LOWER CAVITY FLOODED <div style="font-size: 2em; font-weight: bold; opacity: 0.5; transform: rotate(-15deg); position: absolute; top: 10px; left: 50%;">COPY</div>																																																	
Radiation Survey Y Instrument LUD 9 Serial# 316391 Y Instrument A Serial# A																																																	
Contamination Survey B.Y. Instrument BM 14 Serial# 8275 α Instrument LUD 2360 Serial# 312773																																																	
Contamination B.Y. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>LOC</th> <th>dpm/100cm2</th> <th>LOC</th> <th>dpm/100cm2</th> </tr> </thead> <tbody> <tr><td>1</td><td>50K</td><td>11</td><td><1K</td></tr> <tr><td>2</td><td>10K</td><td>12</td><td></td></tr> <tr><td>3</td><td>12K</td><td>13</td><td></td></tr> <tr><td>4</td><td>80K</td><td>14</td><td></td></tr> <tr><td>5</td><td><1K</td><td>15</td><td></td></tr> <tr><td>6</td><td>↓</td><td>16</td><td>↓</td></tr> <tr><td>7</td><td></td><td>17</td><td></td></tr> <tr><td>8</td><td>8K</td><td>18</td><td>10K</td></tr> <tr><td>9</td><td><1K</td><td>19</td><td>40K</td></tr> <tr><td>10</td><td>↓</td><td>20</td><td>10K</td></tr> </tbody> </table>						LOC	dpm/100cm2	LOC	dpm/100cm2	1	50K	11	<1K	2	10K	12		3	12K	13		4	80K	14		5	<1K	15		6	↓	16	↓	7		17		8	8K	18	10K	9	<1K	19	40K	10	↓	20	10K
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SMEAR SURVEY ONLY AS PER RPS SEE 2213019Q DATED 5/22/17 @0500 FOR DOSE RATES																																																	
Technician Review NAME STEVE SPIESE BADGE # 05013			Supervisor Review NAME Steven Szymanski BADGE # 01-012 DATE: 5-22-17																																														

Post InstaCote™ ML-2 Removal Survey

Salem GENERATING STATION		Radiological Survey		MAP #	2213019																																																																																	
Location: S2 CTMT 130' Rx CAVITY (UPPER)		Date: 05-23-2017	Time: 1200	RWP: 2017-25																																																																																		
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<p>Technician Review</p> <p>Print/Sign: G. Orprice/K. S. Orduke</p> <p>DATE: 5/23/17</p>			<p>Supervisor Review</p> <p>Print/Sign: Steven Szymanski</p> <p>DATE: 5-23-17</p>																																																																																			

ALARA Information

Rwp	Task #	WO #	Time In	Time Out	Org Code	Last Name	First Name	High	Rate	TIME	Max	Net	Dose
S17-25		96 30290568	5/21/2017 1:14:30 PM	5:25:19 PM H-RP03		KENNEDY	JOHN	250.00	1,400.00	4.2	4.80	2.20	2
S17-25		96 30290568	5/22/2017 3:04:30 AM	3:23:41 AM C-DECON		GARCIA	SILVIA	250.00	1,400.00	0.3	0.30	0.00	0
S17-25		96 30290568	5/22/2017 3:04:43 AM	3:23:50 AM C-DECON		HOOKFIN	VESSIA	250.00	1,400.00	0.3	0.30	0.00	0
S17-25		96 30290568	5/22/2017 3:03:19 AM	3:54:43 AM C-DECON		STEVENS	TODD	250.00	1,400.00	0.9	1.40	0.00	0
S17-25		96 30290568	5/22/2017 3:03:43 AM	3:55:06 AM C-DECON		MCCORMICK	WILLIAM	250.00	1,400.00	0.9	1.30	0.00	0
S17-25		96 30290568	5/22/2017 3:03:07 AM	3:55:32 AM C-DECON		FALLAS	BROC	250.00	1,400.00	0.9	6.60	0.10	0
S17-25		96 30290568	5/22/2017 3:03:10 AM	3:55:39 AM C-DECON		SCHOCK	JAMES	250.00	1,400.00	0.9	1.40	0.00	0
S17-25		96 30290568	5/22/2017 5:45:16 AM	8:21:32 AM C-RTECH		TOWNS	EDDIE	250.00	1,400.00	2.6	7.80	1.80	2
S17-25		96 30290568	5/22/2017 5:41:58 AM	8:31:01 AM C-RTECH		FLEETWOOD	JOYCE	250.00	1,400.00	2.8	6.18	1.30	1
S17-25		96 30290568	5/22/2017 6:54:44 AM	10:22:37 AM C-DECON		WEDOW	TIMOTHY	250.00	1,400.00	3.5	17.10	9.60	10
S17-25		96 30290568	5/22/2017 6:55:22 AM	10:27:53 AM C-DECON		SENITTA	STEVEN	250.00	1,400.00	3.5	26.40	10.70	11
S17-25		96 30290568	5/22/2017 5:49:45 AM	10:37:02 AM C-DECON		HOOKFIN	VESSIA	250.00	1,400.00	4.8	28.20	13.30	13
S17-25		96 30290568	5/22/2017 5:49:14 AM	10:37:24 AM C-DECON		MCCORMICK	WILLIAM	250.00	1,400.00	4.8	25.80	16.10	16
S17-25		96 30290568	5/22/2017 5:49:20 AM	10:37:47 AM C-DECON		STEVENS	TODD	250.00	1,400.00	4.8	144.00	17.10	17
S17-25		96 30290568	5/22/2017 5:50:19 AM	10:39:42 AM C-DECON		GARCIA	SILVIA	250.00	1,400.00	4.8	26.40	17.10	17
S17-25		96 30290568	5/22/2017 5:49:44 AM	10:42:25 AM C-DECON		SCHOCK	JAMES	250.00	1,400.00	4.9	45.60	16.30	16
S17-25		96 30290568	5/22/2017 5:49:41 AM	10:51:12 AM C-DECON		FALLAS	BROC	250.00	1,400.00	5.0	102.00	19.80	20
S17-25		96 30290568	5/22/2017 9:33:00 AM	12:11:34 PM C-RTECH		FLEETWOOD	JOYCE	250.00	1,400.00	2.6	5.57	0.90	1
S17-25		96 30290568	5/22/2017 9:49:22 AM	12:11:51 PM C-RTECH		TOWNS	EDDIE	250.00	1,400.00	2.4	4.10	0.70	1
S17-25		96 30290568	5/23/2017 10:25:12 AM	11:41:38 AM C-DECON		CREELY	DENNIS	250.00	1,400.00	1.3	20.60	4.30	4
S17-25		96 30290568	5/23/2017 10:25:09 AM	11:42:05 AM C-DECON		SCHOCK	JAMES	250.00	1,400.00	1.3	19.60	4.10	4
S17-25		96 30290568	5/23/2017 10:25:12 AM	12:03:58 PM C-DECON		MCCORMICK	WILLIAM	250.00	1,400.00	1.6	26.80	7.80	8
S17-25		96 30290568	5/23/2017 10:25:15 AM	12:05:13 PM C-DECON		SENITTA	STEVEN	250.00	1,400.00	1.7	21.90	10.10	10
S17-25		96 30290568	5/23/2017 10:24:50 AM	12:05:25 PM C-DECON		GARCIA	SILVIA	250.00	1,400.00	1.7	17.10	3.70	4
S17-25		96 30290568	5/23/2017 10:24:59 AM	12:05:39 PM C-DECON		FALLAS	BROC	250.00	1,400.00	1.7	21.60	8.10	8
S17-25		96 30290568	5/23/2017 10:26:00 AM	12:05:57 PM C-DECON		GARCIA	RICHARD	250.00	1,400.00	1.7	24.00	6.20	6
S17-25		96 30290568	5/23/2017 10:24:51 AM	12:10:35 PM C-DECON		HOOKFIN	VESSIA	250.00	1,400.00	1.8	32.80	10.20	10
S17-25		96 30290568	5/23/2017 10:24:38 AM	12:44:21 PM C-DECON		STEVENS	TODD	250.00	1,400.00	2.3	18.90	13.80	14
S17-25		96 30290568	5/23/2017 10:26:02 AM	12:48:19 PM C-DECON		WEDOW	TIMOTHY	250.00	1,400.00	2.4	25.60	15.40	15
S17-25		96 10	5/23/2017 1:57:23 PM	4:11:59 PM S-RTECH		BURDSALL	BRETT	250.00	1,400.00	2.2	9.10	0.60	1
S17-25		96 10	5/24/2017 9:25:10 AM	11:00:27 AM S-RTECH		SPIESE	STEVEN	300.00	1,400.00	1.6	318.00	35.30	35
S17-25		96 10	5/24/2017 9:24:50 AM	11:02:27 AM S-RTECH		CLINE	JOSEPH	300.00	1,400.00	1.6	395.00	38.60	39
S17-25		96 10	5/24/2017 11:19:30 AM	1:45:03 PM H-RPTECH		KNIGHT	JONATHAN	300.00	1,400.00	2.4	19.20	11.30	11
S17-25		96 10	5/24/2017 11:20:18 AM	3:47:50 PM S-RTECH		BURDSALL	BRETT	300.00	1,400.00	4.5	595.00	54.10	54

Date: May 7, 2018 @ 1600
Site Name: Wolf Creek Generating Station
Project: Full Scope Refuel
Project Lead: Jeremy King

Phone Number(s) at Site:

- Master-Lee Office, 620-364-8831 x4354, King cell 724-544-6579
Buchta cell 412-554-6336 (nights)
- Use M-L Email for communications.

CURRENT PLANT STATUS: Mode 6

WORK COMPLETED IN PAST 12 HOURS: Installed cavity elevator, removed bullet nose, removed cavity ladder. Removed stud hole plugs and guide studs. QC inspected stud holes, SAT. Started installing reactor studs.

QUALITY/SAFETY/HuP ISSUES: MLDS did an excellent job with cavity instacote, we were released to work in the cavity in singles after the application. NO PCE's with stud hole plugs or guide stud removal IN SINGLES.

EQUIPMENT/TOOLING/PERSONNEL ISSUES: Lost time due to polar crane limit switch troubleshooting issues.

SCHEDULED WORK FOR NEXT 12 HOURS: Complete installing studs, mobilize tensioners, tension head,

Crew Schedule: 24/7

EXPECTED TRAVEL OUT DATE: May 10/11, 2018



BWR/PWR Plants

InstaCote™ ML-2 has been used

BWR Plants

Vermont Yankee
Oyster Creek
Cooper
Nine Mile

PWR Plants

ANO 1,2
Commanche Peak 1,2
Ginna
Salem 1,2
Sequoyah 1,2
St. Lucie 1,2
Turkey Point 3,4
Watts Bar
Wolf Creek



Questions?
Discussions