

RP ALARA Conference Breakout Sessions



- 1. ICE, B&W, Framatome**
- 2. Westinghouse 2L**
- 3. Westinghouse 4L, Group A**
- 4. Westinghouse 4L, Group B**
- 5. BWRs**

Breakout Sessions
ICE, B&W, Framatome



Group – Ice, B&W, Framatome
Successes – What has gone right

Facilitator: John Hertz



Davis-Besse
Ryan Brown

- First success – best ever outage dose 35.2 REM
- Second success – expansion of semi-permanent scaffolds

Watts Bar
TJ Cook

- First success – 3 H3D gamma cameras for outage analysis of crud burst. Allowed early release of crud burst affected areas.
- Second success – 4.0 critiques on all High Risk and infrequently performed (IPTE) jobs.

Framatome
David Howard

- First success – Cavitation peening equipment improved shielding and flushing.
 - Second success – development of robot for SG ECT and plugging requires no robot changes in the most recent outage.
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Group – Ice, B&W, Framatome
Successes – What has gone right

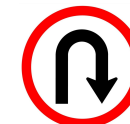
Facilitator: John Hertz



Sequoyah
John Hertz

- First success – Recovery of legacy rad waste areas (decontaminated, consolidated and shipped filters and other legacy waste).
 - Second success – Self-contained tensioners saved 1 REM on U2 outage, 2 REM on U1 outage
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Group – Ice, B&W, Framatome Facilitator: John Hertz
Challenges – What has gone wrong



Davis-Besse
Ryan Brown

- First challenge – security dose estimate/reporting. SRD/DLR discrepancy due to reduced frequency of DLR reads.
- Second challenge – company acquisition creating confusion regarding program ownership

Watts Bar
TJ Cook

- First challenge – work group dose ownership
- Second challenge – new RP techs (75% < 5 years experience)

Framatome
David Howard

- First challenge- finding qualified people
 - Second challenge- development of robot for some of the heavier repair processes
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Group – Ice, B&W, Framatome Facilitator: John Hertz
Challenges – What has gone wrong



Sequoyah
John Hertz

- First challenge – Maintenance Services ALARA planning engagement

 - Second challenge – SG Rad Worker practices: locked 23 workers out of RCA due to willful disregard
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Golden Nuggets:

- **Davis Besse** – backup contract with INS (Mexican Techs) prior to outage even though they didn't think they needed it... they needed it.
- **Watts Bar** – assign outage control points to RP techs 8 months prior to outage
- **Framatome** – clean/dirty bins for headsets needing survey/decon

Group – Ice, B&W, Framatome Facilitator: John Hertz
Challenges – What has gone wrong



- **Sequoyah** – Power App to show room postings/access status.

Breakout Sessions
Westing House 2L



Group – 2 Loops Facilitator: Dave Martin
Successes – What has gone right



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- Calvert Cliffs***
Roy Lopez,
Norberto
Mendez
- First success – Reduced time RCP from 24 to 8 hours.
 - Second success – ALARA advocate program dose ownership is better. But took involvement of SLT.

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- Point Beach***
Ryan Meagher
- First success – Eight months of asking automating workorder to RWP in progress
 - Second success – SLT paying for RPALARA group.

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- Palo Verde***
Eilert Meyers
- First success – RCP impeller 4.0 performance 110% estimate
 - Second success – RCP motor oil level inside bio. Job went well.

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- Prairie Island***
Dave Martin
- First success – 150 Day outage two unit shut down no NRC more than one minor Rad violations
 - Second success – ALARA trinkets a must with a estimated 63 day outage.
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Group – 2 Loops **Facilitator: Dave Martin**
Challenges – What has gone wrong



Calvert Cliffs
Roy Lopez,
Norberto Mendez

- First challenge – Contaminated hic needs deconned before shipment.
- Second challenge – No Radwaste group controlled by RP. Hard getting money for shipping.

Point Beach
Ryan Meagher

- First challenge – Had to cancel barrel shipment due plant support.
- Second challenge – No consistent RP supervision, plant supervision are not consistent either.

Palo Verde
Eilert Meyers

- First challenge- Level 2 PCE's
- Second challenge- House staffing and experience is low.

Prairie Island
Dave Martin

- First challenge – Radworker behaviors new nuclear.
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Group – 2 Loops Facilitator: Dave Martin
Challenges – What has gone wrong

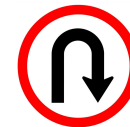


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- **Second challenge – Hiring house RP's with good work ethic**
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Golden Nuggets:

- **Calvert Cliffs – RP Challenger: someone not involved with job challenges workers at end of brief on what they understood from the brief (stay times, dose rates, set points, controls, etc)**
- **Point Beach – SLT paid for UDEMY 1000's hours of training for \$250 Year.**
- **Palo Verde – AWM Mirion technology for dose rates and monitoring dose.**
- **Prairie Island – Money for upgrading RP equipment. NRC recommended.**

Breakout Sessions
Westinghouse 4L Group A



Group – 4 Loops (A) Facilitator: Scott Leach
Successes – What has gone right



Vogtle
Michael Beyer

- First success – RP Supervisors involved in outage schedule reviews prior to the start of the outage.
- Second success – second set of safety valves purchased so they can be replaced without waiting for the testing/rebuilds.

Wolf Creek
Bob French

- First success – Used more senior supplemental techs than junior techs during outage. Opposite of normal staffing.
- Second success – engagement of leadership team for steam generator planning.

STP
Eric Hood

- First success – Planned ahead for Westinghouse to not be able fully staff supplemental techs. Had three different companies supporting.
 - Second success – Prepared for failed fuel ahead of the outage. Reduced WBC's and no level 2 or 3 contamination. Good use of lessons learned.
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Group – 4 Loops (A) Facilitator: Scott Leach
Successes – What has gone right



Byron
Scott Leach
Jacob Burton

- First success – Fully staffed experienced team. Everyone works well together.
- Second success – DCS campaign completed five containers for 312 mrem. There were no Radworker issues and no PCE's.

Group – 4 Loops (A) Facilitator: Scott Leach
Challenges – What has gone wrong



Vogtle
Michael Beyer

- First challenge – Supporting the initial entry during shutdown. Controlling number of people going into containment.
- Second challenge – Lead tech position and difficulties with the union.

Wolf Creek
Bob French

- First challenge – Changed work control process seven months prior to outage.
- Second challenge – Difficult to get computer access for incoming supplemental support.

STP
Eric Hood

- First challenge- Work management process at the station. Use a lot of emergent dose.

Byron
Scott Leach

- Second challenge- Radworker performance declining
 - First challenge – Hard to staff laborers during outage.
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Group – 4 Loops (A) Facilitator: Scott Leach
Challenges – What has gone wrong



Jacob Burton

- **Second challenge – Budget constraints and Business Ops challenges.**
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Golden Nuggets:

- **Vogle – Color coded dose markers for work on top of cask during DCS.**
- **Wolf Creek – Junior RPT program – sponsor initial training of junior class.**
- **STP – Utilize more junior supplemental technicians and provide opportunities for them to learn.**
- **Byron – Lead tech program to support supervisors during outages.**

Breakout Sessions
Westing House 4L Group B



Group – 4 Loops (B) Facilitator: Joe Coughlin
Successes – What has gone right



**Constellation
Corp
Kevin Crymes**

- First success – Outage management estimating tool being utilized for task risk evaluations and outage estimating/planning
- Second success – Dose report refinement during outages with revision of daily dose estimates based on work performed and comparing work completed to estimates to understand variances

**Seabrook
Michael Smith,
Robert York**

- First success – New SVP was a previous RPM. Champions dose reductions initiatives. Challenged work groups on annual dose reduction plans and associated/specific actions
 - Second success – Ownership OPs has taken with training of new Operators and dose aspects of the field activities
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Group – 4 Loops (B) Facilitator: Joe Coughlin
Successes – What has gone right



Diablo Canyon
Felix Martinez

- First success – Embracing new technology. Virtual tour 360 being utilized and workers are finding benefits. Laser scan RCA being utilized by engineering and planning. Now moving forward with 3D printing for shielding applications
- Second success – P6 monitoring of schedule and data analysis of work activities to refine daily outage estimates

Braidwood
Joe Coughlin,
Jeffrey Chase

- First success – Cameras are named/configured specific to network and are recognized as soon as deployed
 - Second success – Radworker quiz given prior to DLR issuance to raise awareness to RP fundamentals. INPO strength
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Group – 4 Loops (B) Facilitator: Joe Coughlin
Challenges – What has gone wrong



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- Constellation Corp*** ➤ First challenge – Fleet ALARA knowledge. Conducting an ALARA Analyst training session this summer to help fill the knowledge void
- Kevin Crymes**
- Second challenge – Sometimes a lack of engagement in SAC meetings. More often an RP meeting versus overall challenge and understanding impacts of performing dose reduction initiatives

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- Seabrook*** ➤ First challenge – Last outage in the radioactive material storage building found hot particles outside of posted area. Challenges with Outage Coordinator and movement of equipment
- Michael Smith,**
- Robert York**
- Second challenge – Centralized training getting generic and not specific to plant needs/details

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- Diablo Canyon*** ➤ First challenge- During outage performing pipe replacement outside worker became contaminated due to being on work platform versus outside of work area
- Felix Martinez**
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Group – 4 Loops (B) Facilitator: Joe Coughlin
Challenges – What has gone wrong



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- Second challenge- Mechanics removed lead shielding from work area without RP knowledge accumulating more dose during work activity.

Braidwood
Joe Coughlin,
Jeffrey Chase

- First challenge – HRA event during spring outage due to not briefing ISI workers to current radiological conditions
- Second challenge – Scaffold built around Rx Head while on stand for inspections. Looking for modular system to hang via bolt holes for inspection access

Golden Nuggets:

- **Constellation Corp – Utilize questions on Sentinel during digi login to challenge radworker knowledge/awareness**

Group – 4 Loops (B) Facilitator: Joe Coughlin
Challenges – What has gone wrong



- **Seabrook – 55 inch TV staged at login stations with power point looped with RP fundamentals and radworker practices**
- **Diablo Canyon – Workgroups ownership of dose and comparison of previous history to validate estimates**
- **Braidwood – Off network camera system to be used for quick setups and deployments; freezes, fire watch, valve tasks, etc**

Breakout Sessions
BWRs



Group – BWRs Facilitator: Jonah Morgan
Successes – What has gone right.



LaSalle
AJ Bristol-
Johnson

- First success – Dose estimates, tribal knowledge, better surveys, high risk radiological, working with RP techs on survey templates, Alpha/Beta Surveys, risk evaluations in ALARA plans. Survey Templates to have reproduceable records for planning and ALARA plans and NRC information. It sets expectations and standards. Provides Proof of results, ultra-sonic decontamination.

 - Second success – Having TEDE templates to apply to multiple RWP to improve efficiencies and reduce multiple revisions. Having RWPs structured to handle Moisture Carryover, remove temp revs to eliminate error traps.

 - Bundling LHRA entries to reduce RP Burdens.
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Group – BWRs Facilitator: Jonah Morgan
Successes – What has gone right.



Quad Cities
Darcy Hamilton

- First success – Lowering Hydrogen Addition when going into Steam Affected Area, coordinating with Ops and Chemistry to lower dose rates and overall dose.
- Second success – Last Outage ISI Points, Core Spray Lines are high dose, had plans to flush but didn't have the correct equipment. Worked with Engineering to defer inspection on the these lines to next outage to prove that they didn't have to be done, 4 rem just for the shielding.

Limerick
Robin Miller
Randy Weyer

- First success – Cavity Decon, down to 4 hours, Diakont Robot for Cavity Cleaning (\$230k), reactor services put them in schedule. RP funded
 - Second success – 17C valve, LIPSI Line 39 Rem/hr, 22 Rem/Hr hotspots, Bump the pump to remove hotspots, 30 rem to do the job, with shielding was 20 Rem, B RWCU down to 20-50 mrem/hr, job was a overall completed for less than 1 Rem.
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Group – BWRs Facilitator: Jonah Morgan
Successes – What has gone right.



STP

Jonah Morgan

- First success – Multiple Vendors for Backup Contracts on RP techs, INS techs were excellent.
 - Second success – Use of Junior RP techs to support Critical Path Work in 2RE23
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Group – BWRs **Facilitator: Jonah Morgan**
Challenges – What has gone wrong.



LaSalle
AJ Bristol-
Johnson

- First challenge – Moisture Carry Over due to different fuel design and core design. Unit 1 13 Rem additional dose, 60 curies in Unit 2 Nuclear Fuel Design, only care about core design, adding new bundles

- Second challenge – Bringing ALARA plans and estimates 4-6 months before and outage. Outage freeze does not apply, and work is added up until 2 weeks prior to outage, can sway dose estimates 10-15 rem

Quad Cities
Darcy Hamilton

- First challenge – Issues with Radwaste, LHRA, tanks reading 20 -30 REM with resin on the floor, 25 Rem dose estimate to clean, seal floors to contain Tritium from leaking into ground water.

 - Second challenge – Department engagement is tough do save dose, dose advocates don't show up, ALARA department runs the entire meeting with no involvement.
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Group – BWRs **Facilitator: Jonah Morgan**
Challenges – What has gone wrong.



Limerick
Robin Miller
Randy Weyer

- First challenge- GNF3 Fuel, Higher burn, dryer not designed for Higher Burn. Mrad in Condenser, moister carrier over increased, dose goals and performance.
- Second challenge- New Filters on demins, was 200 mrem for a job, but now over a Rem for the job, which leads to poor chemistry, which leads to more dose

STP
Jonah Morgan

- First challenge – Work order compliance, using wrong Work orders which is a challenge for dose tracking, Refuel dose planned for 13 Rem, picked up 19 Rem but RCB coordinators and O-ring project picked up 3-4 rem.
 - Second challenge –
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Group – BWRs Facilitator: Jonah Morgan
Challenges – What has gone wrong.



Golden Nuggets:

- **LaSalle** – Challenging Engineering and organizations to save over 100 Rem of dose. Building Relationships to allow that work to be deferred work and get things done that need to get done when it needs to be done.
- **Quad Cities** – Mid Month SAC to get more involvement from Craft to get emergent dose and large dose jobs to get approved.
- **Limerick**- Flexible hours for seasoned worker to keep that knowledge in house, until knowledge transfer is complete. Ask Bruno!!
- **STP** – Not being a Boiler. Having a OneNote to capture a central location for teaching a learning website to capture videos, pictures, walkdowns to reinforce standards and knowledge transfer.