

# **Nuclear Regulatory Commission** **Regulatory Conference**

## **Energy Northwest, Inc.** **Columbia Generating Station**

USNRC Region IV

Tuesday, March 1, 2021

# Meeting Logistics

- Operation of WebEx
- Please **MUTE** cellular phones
- Scheduled break (15-minute)
- NRC caucus (Team Meetings)
- Public Question Session (Press \*1 on phone to “raise hand,” then await for the Moderator to acknowledge you)

# MEETING AGENDA

Topic	Participants
NRC Opening Remarks and Introductions	Scott Morris
Licensee Opening Remarks and Introductions	Energy Northwest (ENW) / Columbia Generating Station (CGS)
Regulatory Conference Process	Mary Muesle
Summary of the Event, White Finding, Violations	Jonathan Evans
Performance Deficiency and NRC's Dispositioning Process	Natasha Greene, PhD
Possible Outcomes and Licensee Appeal Rights	Jeremy Groom
Discussion of Apparent Violations	Dominic Antonangeli
Licensee Presentation	ENW / CGS Staff
Questions and Discussion	NRC and ENW / CGS Participants
Break and NRC Caucus (via Teams Meeting)	NRC and ENW / CGS Participants
Questions and Discussion	NRC and ENW / CGS Participants
Licensee Closing Remarks	ENW / CGS Staff
NRC Closing Remarks	Scott Morris
Public Question and Answer Session	Public Attendees

# NRC Principal Participants



**Scott Morris**  
RIV Administrator



**Mary Muessle**  
RIV DRSS Director



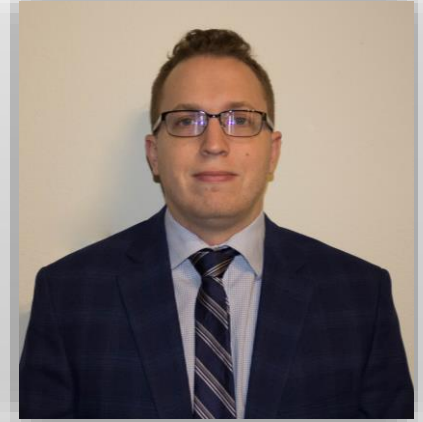
**Jeremy Groom**  
RIV ACES Team Leader



**Jonathan Evans**  
DRSS/DIORB Acting Chief



**Natasha Greene, PhD**  
DRSS/DIORB Sr. HP



**Dominic Antonangeli**  
DRSS/DIORB HP

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# Energy Northwest Inc.

## Opening Remarks / Introductions



**Grover Hettel**  
VP Nuclear Generation/CNO



**Dave Brown**  
Site Vice President



**Tony Hedges**  
Chemistry/Radiological  
Services Manager (CRSM)



**Sam Nappi**  
Asst. CRSM



**Desiree Wolfgramm**  
Regulatory Affairs Manager



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# Purpose of Regulatory Conference

- The NRC normally provides an opportunity for a licensee to address apparent violations before the NRC takes escalated enforcement action, or makes a final decision on the significance.
- The primary purpose of a Regulatory Conference is to get information from the licensee on the significance of findings evaluated through the Significance Determination Process (SDP), and gain their perspective on the apparent violations.
- The significance assessment determines whether an escalated enforcement action will be considered (i.e., a Notice of Violation associated with a white, yellow, or red SDP finding). Licensee input during this conference is also considered in making a final decision.



# Today's Meeting

- No Final Decision on safety significance or enforcement action will be made today.
- Our NRC Inspection Report provided our *current* understanding and perspective on the issue.
- We Want **Your Perspective**
  - Any additional details NRC should consider
  - Whether findings/violations occurred
  - Perceived significance of the findings/violations
  - Corrective actions implemented and/or Planned Timeline

# Public Meeting Disclaimer

- The public is invited to observe the meeting and will have one or more opportunities to communicate with the NRC after the business portion, but before the meeting is adjourned.



# Summary Overview of the CGS Uptake Event

- On Friday, May 28, 2021, while performing weld preparations and grinding on highly contaminated Reactor Water Clean Up (RWCU) system piping, a team of radworkers and pipefitters deviated from the approved engineering controls, resulting in an airborne radioactivity event that caused 22 positive whole-body counts, including two uptakes of radioactive material resulting in more than 700 millirem CEDE for the two pipefitters.
- There was also an additional uptake of 14 mrem by a RP tech. The work was performed in the RWCU Heat Exchanger room, a posted locked high radiation area and contamination area.
- The licensee contacted the NRC to discuss the event on May 29, 2021.

# Columbia Generating Station

Reactor Water Clean-up (RWCU) Heat  
Exchanger Radioactive Material Uptake Event  
May 28, 2021

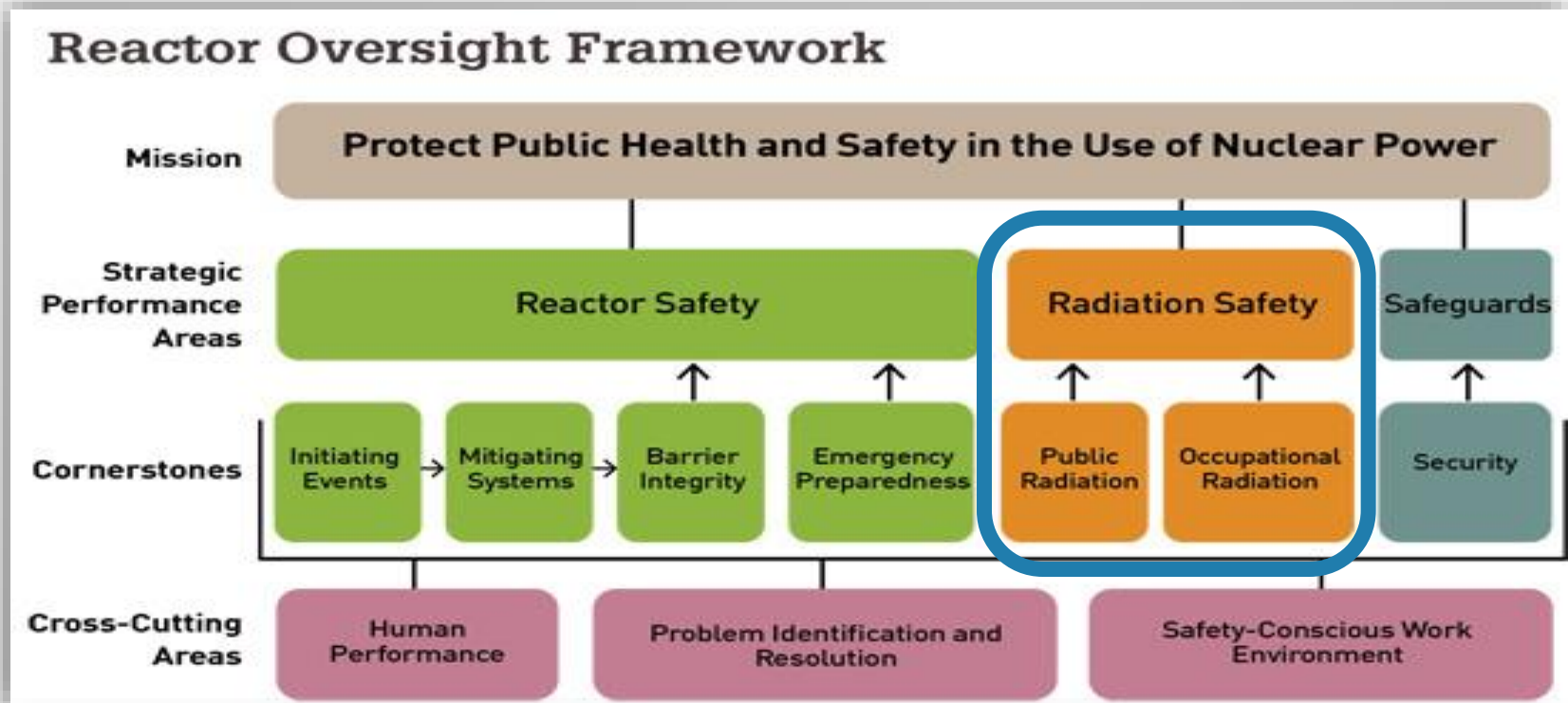
NRC informed on  
May 29, 2021

NRC issued a Choice Letter to CGS on  
January 13, 2022  
(ML21347A988; EA-21-170)

## **Performance Deficiency**

- Per our understanding, the licensee failed to implement and follow written procedures for radiation protection. Specifically, the licensee failed to implement and follow Sections 4.4, 5.1.1, and 5.2.2 of licensee instruction manual HPI-12.90, "Contamination Control Containment Devices." These sections state, in part, that (Section 4.4) a TEDE ALARA evaluation is [to be] performed; (Section 5.1.1.) the licensee should specify the type of containment device to be used (i.e., glove bag with a 20 to 40 cfm filter) in the ALARA pre-job planning documents or in the RWP; and (Section 5.2.2) that glove bags with a negative ventilation should have a 20 to 40 CFM HEPA breather filter installed.
- The licensee failed to specify this information in the ALARA planning documents or in the RWP 30004732 used for the job, which ultimately resulted in the selection of the wrong glove bag inlet filter, the subsequent collapse of the glove bag, the release of the airborne radioactive material, and not using respiratory protection to mitigate the consequences.

# Reactor Oversight Process: Significance Determination Process



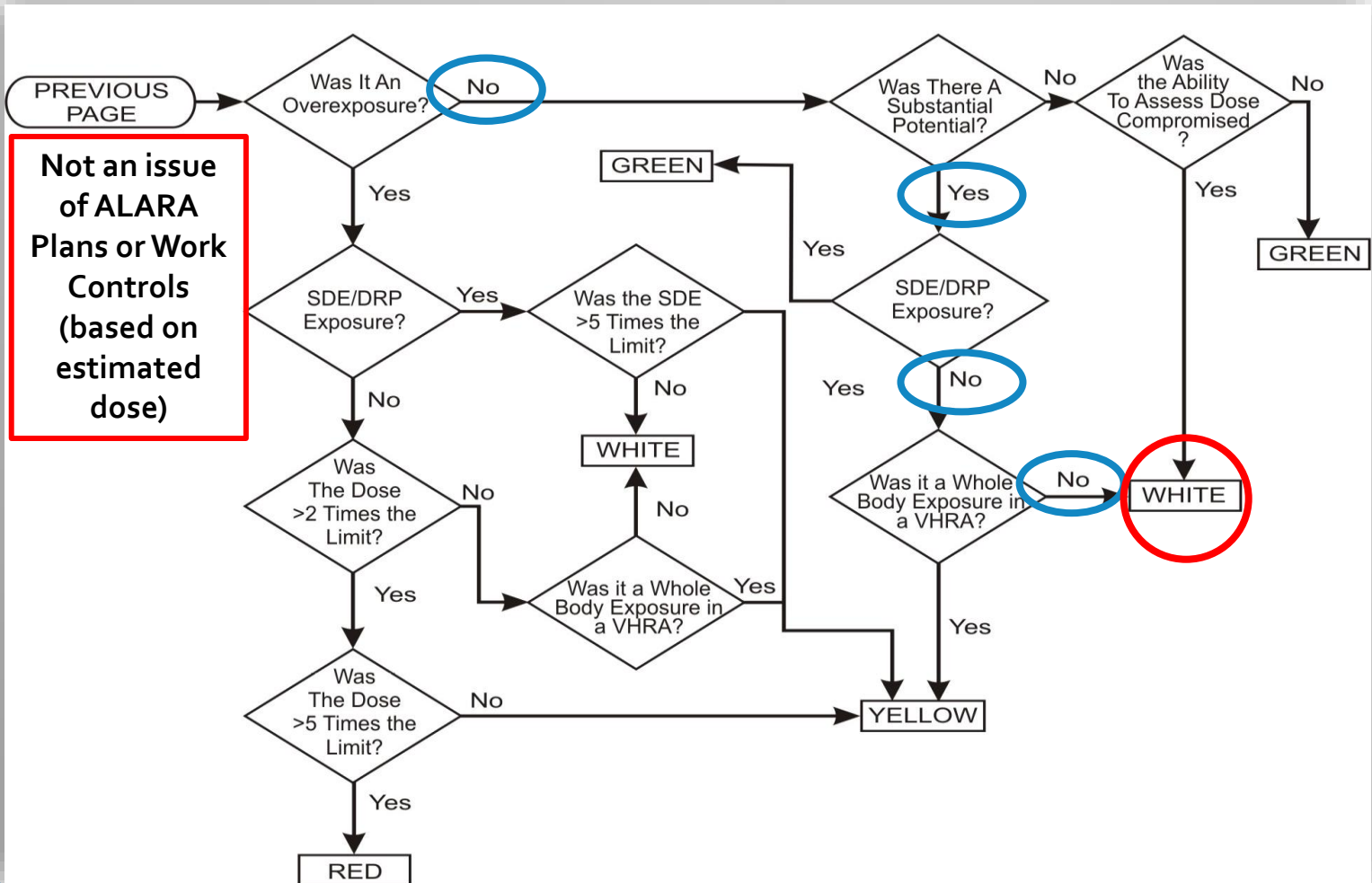
## Inspection Findings



# Dispositioning the Issue: More than Minor

- The inspectors determined the performance deficiency was more than minor because it adversely affected the Occupational Radiation Safety cornerstone objective to ensure adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation.
- Let's review the IMC o609, Appendix C, "Occupational Radiation Safety Significance Determination Process" Flow Chart to further disposition the significance ...

# IMC o609, Appendix C: Occupational Radiation Safety Significance Determination Process



# Substantial Potential for Overexposure

- IMC 0609, App. C, defines it as: an event presents a substantial potential when it was fortuitous that the resulting exposure did not exceed the limits of 10 CFR Part 20. No credit is given for luck.
- Concern is focused on whether the licensee provided *adequate controls* over the situation, as required, to ensure dose limits are not exceeded.
- Consider if it is possible to construct a reasonable scenario in which a minor alteration of circumstances (as they actually happened) would have resulted in a violation of the 10 CFR Part 20 limits



# NRC's Reasonable Scenario - Fortuitous Intervention

- The NRC considered the reasonable scenario to be the continuation of the work, including clean up, without intervention.
- The NRC deems the intervention by the RP Tech Lead as fortuitous due to his view of the correct camera, his experience/knowledge to recognize the abnormal situation with the glove bag, and the short pathway to the RWCU HX room.
- NRC derived air concentrations (DAC) calculations for airborne radiation levels at the time of the event, as confirmed by the licensee's DAC calculations, showed that workers may have been overexposed (greater than 5 rem) within five additional minutes of working in the area. This was based on the best available data.

# Possible Outcomes

- The NRC determines there is no violation resulting in no enforcement action.
- The NRC determines the apparent violations are of very low safety significance resulting in non-escalated enforcement (Green Non-Cited Violation).
- The NRC determines the apparent violations are of low to moderate safety significance resulting in escalated enforcement (a White Finding and an associated Notice of Violation).

# Licensee's Appeal Rights

- A licensee has the right to challenge any NRC determination/action that may be presented.
- Instructions for challenging a NRC enforcement action are included in our transmittal letter and the action itself.

# Apparent Violation #1

- Title 10 CFR 20.1701 requires, in part, that licensees shall use, to the extent practicable, process or other engineering controls to control the concentration of radioactive material in air.
- Contrary to the above, on May 28, 2021, the licensee failed to use, to the extent practicable, process or other engineering controls to control the concentration of radiation material in air. Specifically, the licensee did not use appropriate engineering controls to ensure that grinding on the internals of highly contaminated piping would not result in airborne radioactive material gbecause the glove bag was not sufficient to meet its intended purpose. As a result, an airborne contamination event caused two individuals to receive internal doses of greater than 700 millirem CEDE.

# Apparent Violation #2

- Technical Specification 5.7.2.b requires, in part, that access to, and activities in, each high radiation area with dose rates greater than 1.0 rem/hour at 30 centimeters from the radiation source shall be controlled by means of an RWP.
- RWP 30004732, created to control activities in a Technical Specification 5.7.2.b high radiation area, required, in part, that continuous Health Physics job coverage is provided when personnel are entering and working in areas with dose rates greater than 0.8 rem/hour.
- Contrary to the above, on May 28, 2021, the licensee failed to control, by means of an RWP, the activities in a high radiation area with dose rates of greater than 1.0 rem/hour at 30 centimeters from the radiation source. Specifically, the licensee failed to ensure that there was continuous Health Physics job coverage in a posted high radiation area with dose rates of 1.3 rem/hour at 30 centimeters from the radiation source. An RP technician, scheduled and briefed to provide the continuous Health Physics job coverage, was unable to fit on the work area platform and left two pipefitters unattended in the area. A second RP technician subsequently replaced the original technician.

# Apparent Violation #3

- Title 10 CFR 20.1501(a)(2) requires, in part, that licensees shall make surveys of areas that are reasonable under the circumstances to evaluate the magnitude and extent of radiation levels; and concentrations or quantities of residual radioactivity.
- Contrary to the above, on May 27, 2021, the licensee failed to make surveys of areas that were reasonable under the circumstances to evaluate the magnitude and extent of radiation levels; and concentrations or quantities of residual radioactivity. Specifically, the licensee failed to adequately determine the work area radiation levels.
- As a result, surveys completed prior to the event did not adequately identify work area dose rates and did not identify appropriate contamination levels, which may have increased the rigor of the job's radiological and engineering controls.

# Energy Northwest Presentation Agenda



**ENERGY NORTHWEST**

NRC Regulatory Conference - March 1, 2022

## **Introduction and Agenda**

### **Introduction and Agenda**

Desirée Wolfgramm, Regulatory Affairs Manager

### **Management Overview**

Dave Brown, Site Vice President

### **Event Description**

Tony Hedges, Chemistry/Radiological Services Manager

### **Root Cause and Corrective Actions**

Sam Nappi, Assistant Chemistry/Radiological Services Manager

### **Significance Determination**

Desirée Wolfgramm, Regulatory Affairs Manager

### **Closing Comments**

Grover Hettel, Vice President Nuclear Generation / Chief Nuclear Officer



# **NRC and Energy Northwest/CGS Staff Q&A Session**



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# **NRC Regulatory Conference with Energy Northwest's Columbia Generating Station**



***NRC Caucus in Session***  
**... Returning Shortly**

# Conference Closing Remarks

- Energy Northwest's Closing Remarks
- NRC's Closing Remarks
  - Next Steps / Expectations
- Conclusion of the business portion of today's Regulatory Conference
- The platform is now **OPEN** to questions from our public attendees ... PLEASE press \*1 on your phone and await the Moderator to announce you.

# **Any Questions from the Public Attendees?**

**(Please press \*1 on your phone to identify  
yourself and await the Moderator)**

