

# *Licensee Performance Review*



## Framatome - Richland, Washington

Nuclear Regulatory Commission - Region II

May 4, 2022, 2:00 PM (EDT)

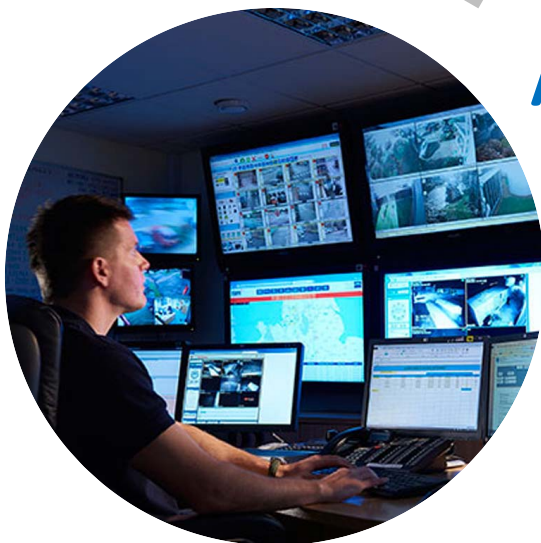
Presenter: Cynthia Taylor, Senior Project Inspector

# *Agenda*

NRC	Introductions
NRC	Our Mission
NRC	How We Regulate
NRC	Performance Review Results
NRC	COVID Response
Framatome	Remarks
NRC	Adjourn Business Portion
NRC	Question & Answer with Public
NRC	Adjourn Meeting



*Our  
Mission*



# *How We Regulate*



Inspections



Performance  
Assessment



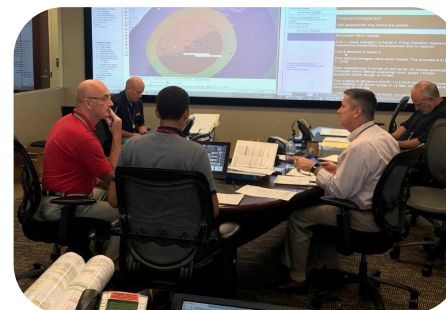
Enforcement



Allegations



Investigations



Incident  
Response



# *Inspection Program*



# LICENSEE PERFORMANCE AREAS

## Safety Operations

### Operational Safety

- Safety Controls
- Supporting Safety Programs



### Criticality Safety

- Criticality Controls
- Program Oversight
- Criticality Incident Response



### Fire Protection

- Prevention, Detection, & Mitigation
- Supporting Fire Safety Programs



# LICENSEE PERFORMANCE AREAS

## Radiological Controls

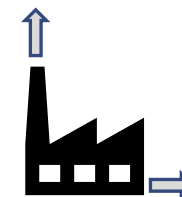
### Radiation Protection

- Members of the Public
- Plant Workers



### Effluent Control Environmental Protection

- Program Implementation
- Liquid and Gaseous Effluents



### Waste Management

- Processing, Handling, Storage & Transportation of Waste



### Transportation

- Receipt, Packaging & Delivery of Radioactive Materials



# LICENSEE PERFORMANCE AREAS

## SAFEGUARDS

### Material Control & Accountability (MC&A)

- Determines and verifies accurate quantities of required SNM on-site.



### Physical Security of Special Nuclear Material

- Physical protection of SNM on-site. Examples: storage vaults, fences, and security personnel.



### Classified Material and Information Security

- Framatome has no classified information. Only Safeguards Information is applicable to Framatome.





# LICENSEE PERFORMANCE AREAS

## Facility Support & Other Areas

### Maintenance and Surveillance

- Safety Controls
- Supporting Program Elements



### Emergency Preparedness

- Emergency Plan Implementation
- Evaluation of Emergency Drills



### Plant Modifications

- Configuration Management Program
- Request for NRC Approval



### Plant Events

- Safety Assessment and Follow-up

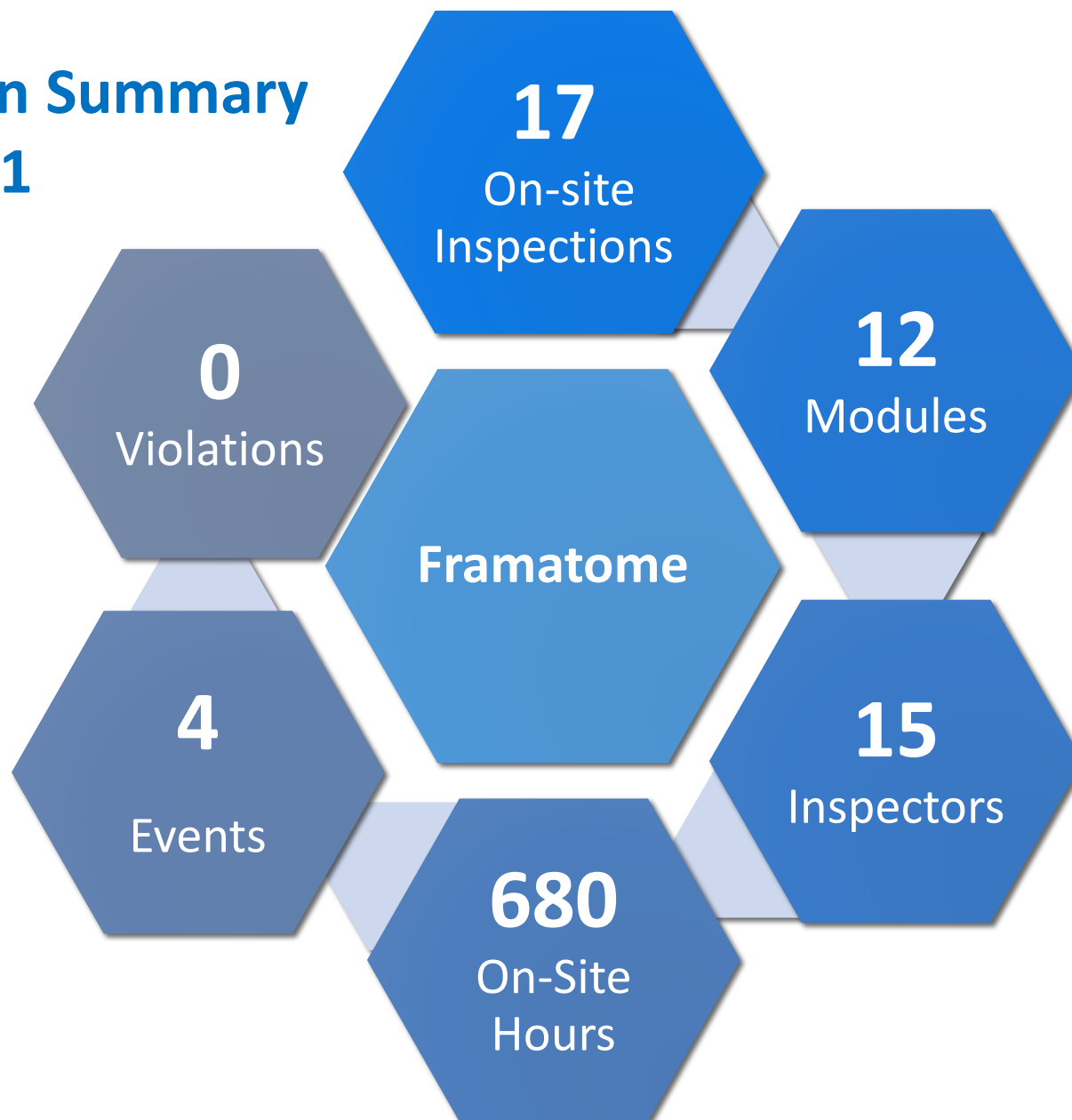


# LICENSED ACTIVITIES

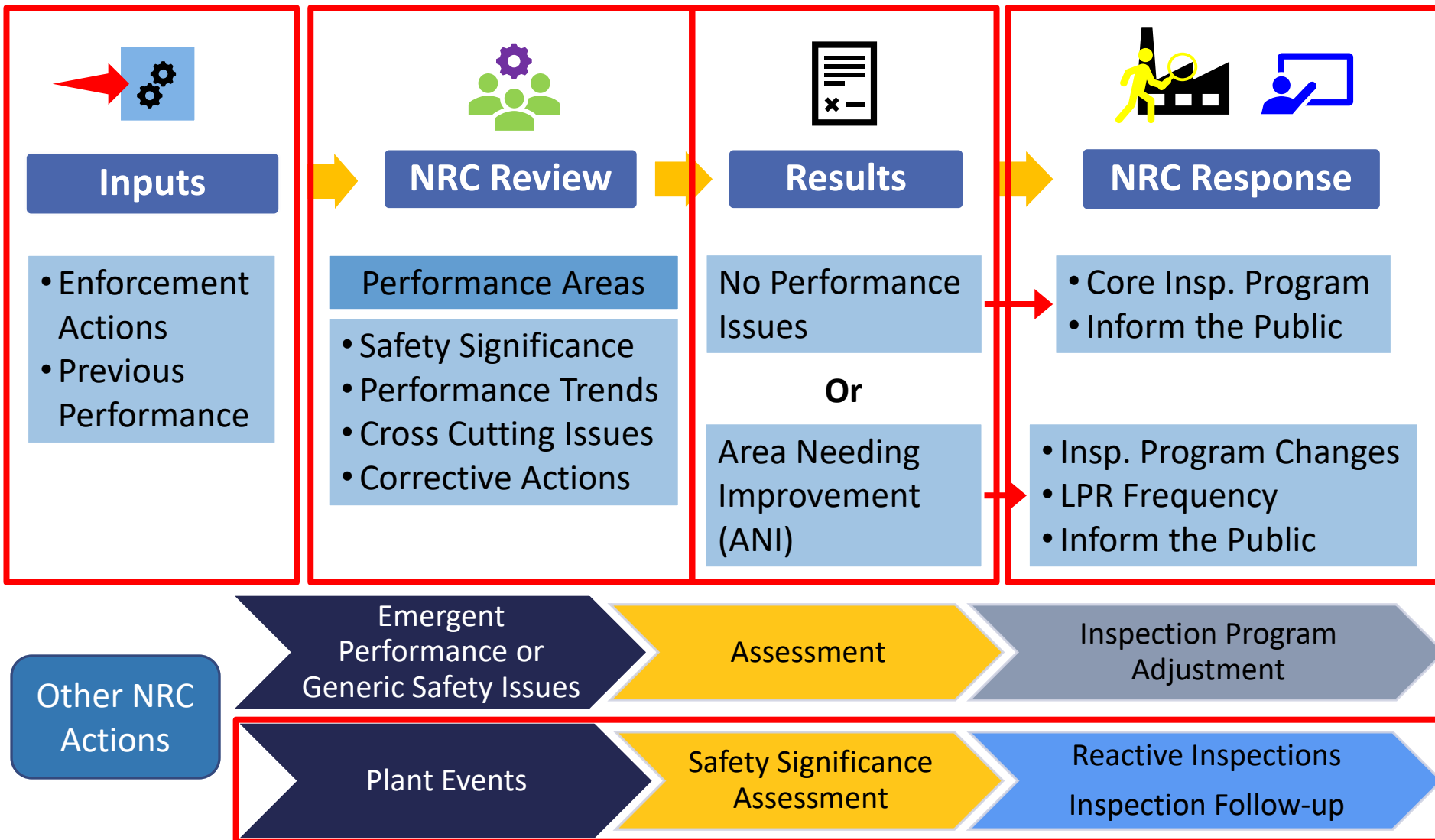
- Possess Special Nuclear Material (Low Enriched Uranium)
- Process and develop uranium products
- Operate on-site laboratories
- Treat and monitor plant effluents

NRC FORM 374	U.S. NUCLEAR REGULATORY COMMISSION		Page 1 of 5
<b>MATERIALS LICENSE</b>			
<p>Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.</p>			
Licensee			
Framatome Inc.		License Number: SNM-1227, Amendment 17	
2101 Horn Rapids Road		Expiration Date: April 24, 2049	
Richland, WA 99354-0130		Docket Number: 70-1257	
1. Byproduct, Source, and/or Special Nuclear Material	2. Chemical and/or Physical Form	3. Maximum Amount that Licensee May Possess At Any One Time	
A. Uranium enriched in U-235 to any enrichment	A. Any	A. 350 g U-235	
B. Uranium enriched up to 5.00 wt. % U-235	B. Uranium Compounds	B. See Sensitive Conditions	
4. Authorized Place of Use: The licensee's existing facilities in Richland, Washington.			
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>This license contains <b>SENSITIVE SECURITY-RELATED</b> Information. Upon removal of the Sensitive Conditions on Page 5, this document is decontrolled.</p> </div>			
Enclosure 2			

# Inspection Summary 2020-2021



# Licensee Performance Review Process



**LPR = Licensee Performance Review**



# *LPR Results*

2-Year Assessment Period

January 1, 2020 – December 31, 2021



# *Inspection Results*

## **SAFETY OPERATIONS**

No violations

## **FACILITY SUPPORT**

No violations

## **RADIOLOGICAL CONTROLS**

No violations

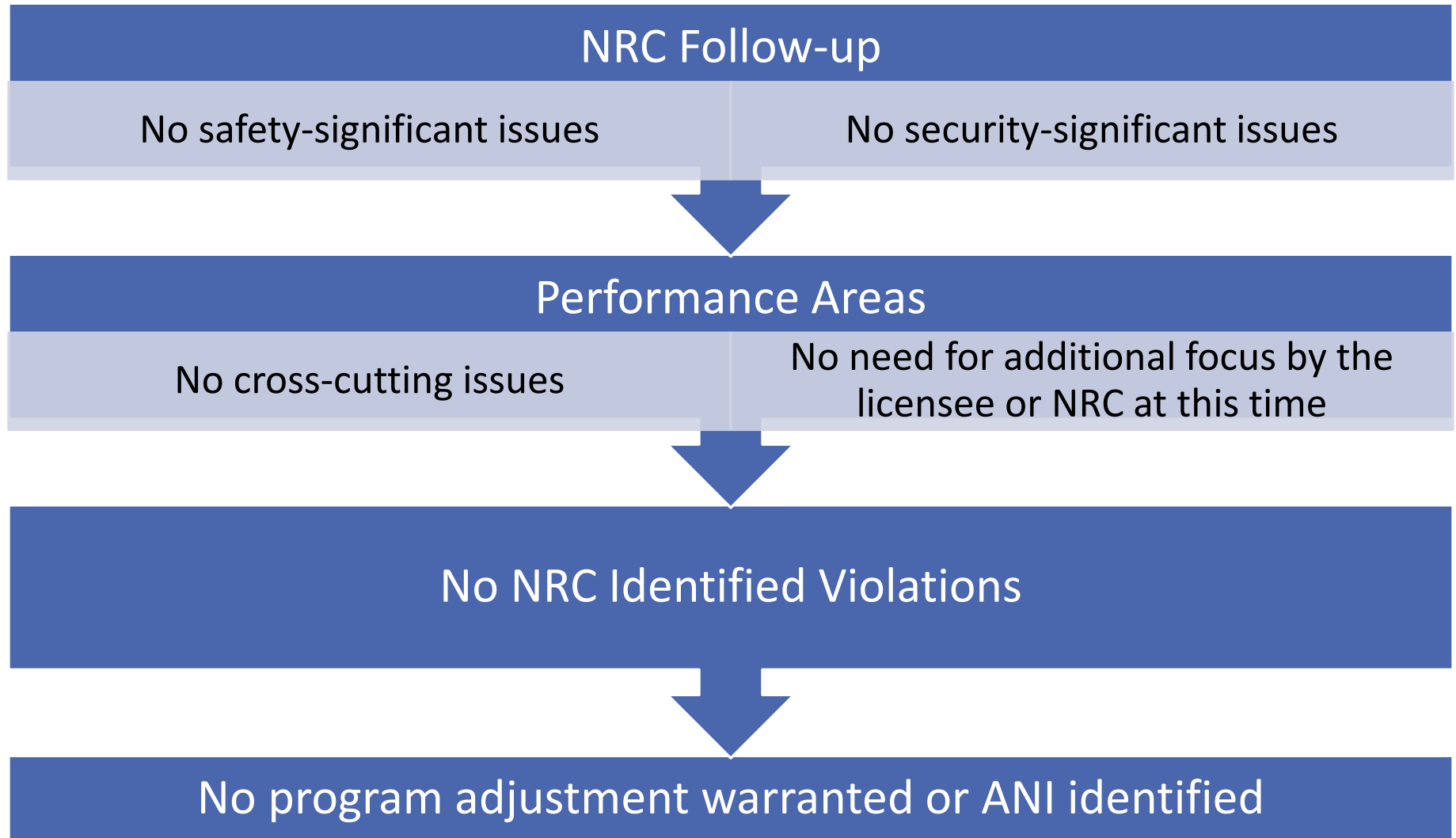
## **SAFEGUARDS**

No violations

## **OTHER AREAS**

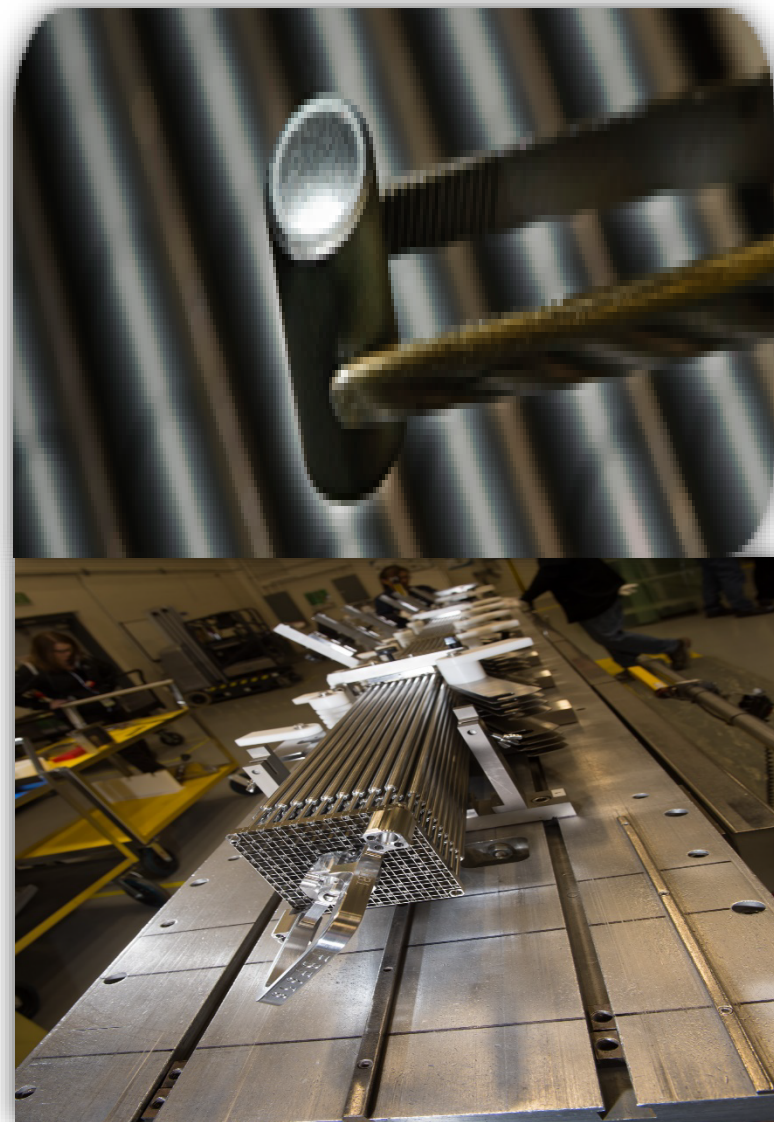
No violations

# LPR RESULTS



## LPR SUMMARY

- Framatome conducted activities safely and securely
- No Violations of Regulatory Compliance were identified
- NRC will maintain a standard core (routine) inspection program in the next performance assessment cycle (January 1, 2022 – December 31, 2023)





# ***NRC Response to***



## **Mission Critical Functions:**

- Monitoring plant activities remotely/on-site through inspections and oversight
- Maintaining emergency response capabilities with Regional IRCs and HQ
- Limiting and risk-informing on-site inspections for region-based inspectors

# ***NRC Response to***



## **Additional Actions:**

- Expanded use of telework
- Ongoing Review of Continuity of Operations Plan
- Coordinating actions with industry to minimize inspection schedule impacts while protecting inspectors and plant staff

# List of Publicly Available Documents

- Public Meeting Link:  
Includes:
  - Licensee Performance Report
  - NRC & Framatome Presentation Slides
  - Meeting Announcement
- Framatome Materials License, 40 Year Renewal,  
Accession No. ML21266A339

# *Framatome Response*





# Richland Fuel Manufacturing Facility

May 4, 2022

Licensee Performance Review

# CONTENT

**01** . Framatome Richland Site Overview

**02** . Our Continuous Improvement Organization

**03** . Our Safety Culture

**04** . Summary / Conclusion

# Celebrating More Than 50 Years of Fueling the Future

- Founded by Jersey Nuclear in 1969, we celebrated our golden anniversary in 2019
- The facility employs approximately 550 employees and 25-30 contractors - We operate 24 hours a day, 7 days a week
- Received the first 40-year fuel fabrication license in 2009 from the U.S. NRC; license to manufacture fuel until 2049
- Provide fuel to U.S. reactors and export to several in the Pacific rim
- Most flexible fuel manufacturing facility in the world
  - Manufacturing both boiling and pressurized water reactor designs
  - Supporting SMR and advanced reactor designs
- Manufactured more than 65,000 fuel assemblies



**Fuel fabricated at the Richland site accounts for approximately 5% of the utility-generated electricity in the U.S.**

framatome

# Richland

Delivering a secure supply of nuclear fuel products for more than 50 years



First 40-year NRC fuel fabrication license extension



The most  
**Modern**  
and **Flexible**  
fuel fabrication  
**Facility**  
in the world

Manufacturing

**\$7M+**  
**Annual Investments**  
on facility upgrades  
and improvements



**10+**  
**Types**  
of PWR and  
BWR fuel

Utilizing a  
**Global Team  
of Experts**  
with unmatched  
industry experience



Environmentally  
friendly  
**Patented Dry  
Conversion**  
process  
to  
**UF<sub>6</sub>** **UO<sub>2</sub>**



Recognized for  
**16** Consecutive  
Years with  
**No Areas  
Needing  
Improvement**  
The highest positive  
rating provided  
by the **NRC**



North America Standards of  
Operational Excellence



## Continuous Improvement Organization

### Focused on Operational Excellence

Safety, Quality, Performance and Delivery

**Safety is our overarching value and drives everything we do**

- Recently surpassed 550 days without a lost time incident onsite
  - Equates to approximately 1.8 million hours worked
  - Strong environmental stewards
  - Safety culture driven daily

**ISO 45001/OSHAS 18001 certified since 2005**

# Richland Site Continuous Improvement Processes



## Culture of Engagement and Continuous Improvement

- Promoting being on-the-floor
- Engaging best ideas from *where the work is done*

## Corrective Action Program - problem identification/resolution

- Trending and actions on low impact events
- Rigorous problem analysis and solving

## Human Performance

- Observation Program – reinforce good safety habits and behavior
  - Employees submitted on average 1,200 ‘Good Catches’ per year
- Suggestions for Improvement program for employees to improve/enhance existing processes and programs
- Use of Human Performance tools; promotion of Stop Safety and Quality culture



# Richland Site Continuous Improvement Processes



## Radiological and Environmental Controls

- In more than 50 years of operation, no plant employee has been exposed over NRC exposure limits.
- ALARA program resulted in 2021 Collective Total Effective Dose Equivalent that was lowest in 28 years.
- Continued installation of portable remote monitoring systems to improve ALARA.
- Enhanced uranium accountability processes implemented.

# Safety Achievements / Improvements



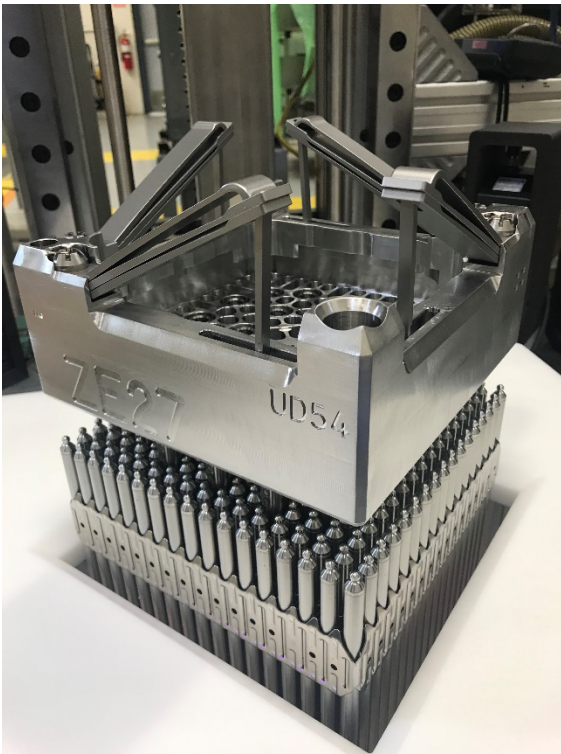
- Initiated D&D of two obsolete process areas.
- Recycled a significant amount of legacy equipment for metal shielding as opposed to disposing of it as radioactive waste.
- Continued recycling/re-use activities involving NRC-licensed and support processes (hydrofluoric acid, ammonium hydroxide, used oil, used machine coolants, paper/cardboard, scrap metals, wood, and batteries).
- Continued improvement in groundwater quality since removal / remediation of surface impoundment system. All six down-gradient monitoring wells consistently below Federal primary drinking water limit for fluorides (4 ppm); and continue to be below the Federal uranium drinking water limit of 30 ppb.
- More than 500 Class 7 radioactive material shipments completed over CYs 2020/2021 without incident.

# Safety Achievements / Improvements



- Top 10 Safety list maintained and continually updated
  - Each year more than 20 plant safety improvement projects are completed.
- Multi-year site-wide fire alarm system upgrades have been completed, and all areas are now active.
- Criticality accident alarm system has been replaced and was put online in 2018.
- Successful startup of a new uranium recovery facility to replace aging uranium recovery facility. Went into commercial operation in 2021
- EHS&L Audit/Inspection schedule lists 85 different audits / inspections / assessments; only 32 specifically NRC-required. Based on required frequencies, over 150 actual audit / inspection activities occur per year.

# Conclusions



- Framatome continues to drive improvements in safety and regulatory compliance
- The Richland Site Management strives for operational excellence daily and promotes a culture of continuous improvement
  - Employees encouraged to Stop When Unsure
  - Employees are encouraged and engaged in submitting their ideas to improve the site processes and procedures

**We have operated for more than 50 years and intend to operate for another 50 years**

**framatome**

**Thank You!**



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# *Question and Answer*

## *Session between the NRC and the Public*

# *Closing Remarks*

# Contacting the NRC

- Website: [www.nrc.gov](http://www.nrc.gov)
- Questions/Information: [OPA2.Resource@nrc.gov](mailto:OPA2.Resource@nrc.gov)  
or call 404-997-4417

## For Safety or Security Concerns:

- Non-Emergency Hotline: 1-800-695-7403
- Emergencies: 301-816-5100
- Link: <https://www.nrc.gov/about-nrc/regulatory/allegations/safety-concern.html>

# NRC ON SOCIAL MEDIA



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**LinkedIn:** <https://www.linkedin.com/company/u-s--nuclear-regulatory-commission/>

**GovDelivery:** <https://service.govdelivery.com/accounts/USNRC/subscriber/new>

# *Feedback Forms*

Feedback forms will be sent out to those members of the public who registered.

An e-mail address is necessary to receive a feedback form. Upon completion, please submit feedback form by e-mailing:

[Cynthia.Taylor@nrc.gov](mailto:Cynthia.Taylor@nrc.gov)

or

[Gregory.Goff@nrc.gov](mailto:Gregory.Goff@nrc.gov)