



Licensee Performance Review



Framatome Inc.
Richland, Washington

April 7, 2020
4:00 PM (EDT)



Agenda

NRC	Introductions
NRC	Our Mission
NRC	Performance Review Process
NRC	Performance Review Results
FRAM	Response
NRC	Adjourn Business Portion
NRC	Question & Answer with the Public
NRC	Adjourn Meeting



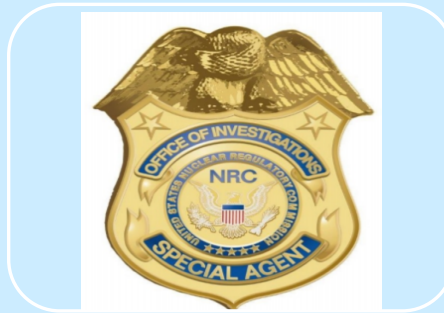
*Our
Mission*



NRC's Fuel Cycle Oversight Components – How We Regulate



Inspections



Investigations



Allegations



Incident
Response



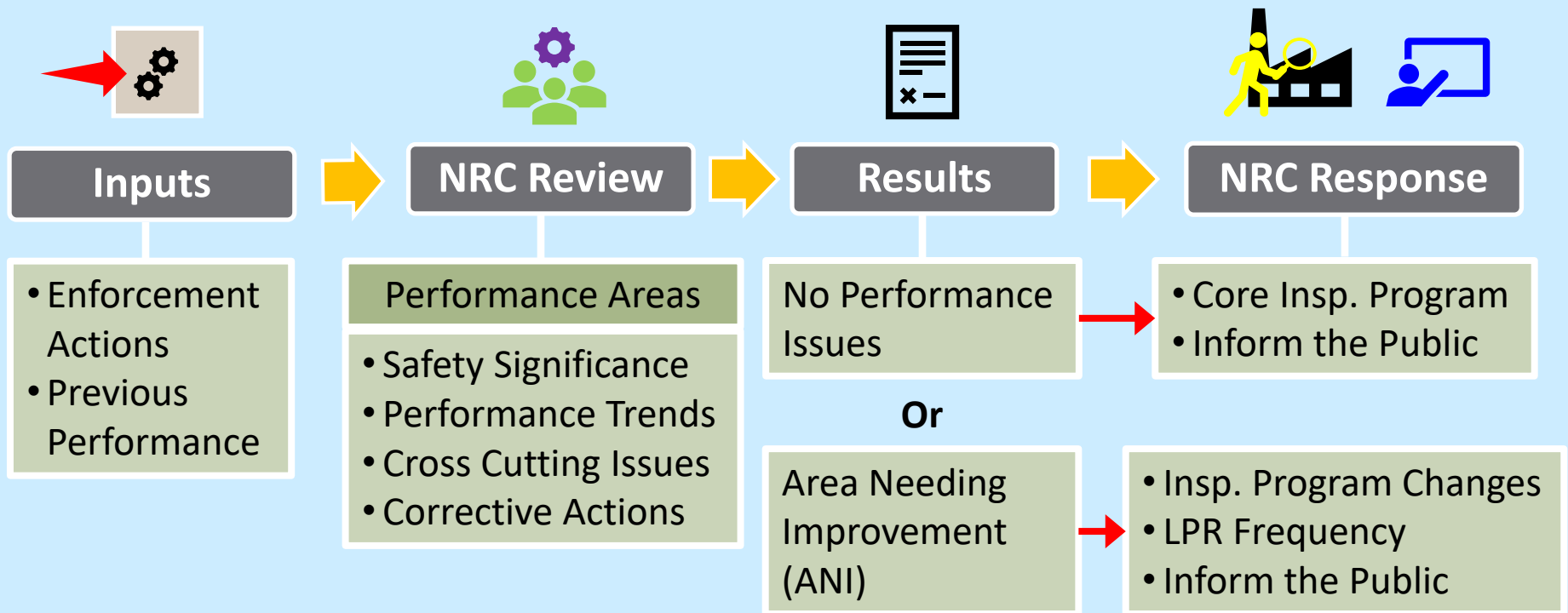
Enforcement



Performance
Assessment



Licensee Performance Review Process



LPR = Licensee Performance Review

Framatome Inc. Facility

Licensed Activities

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

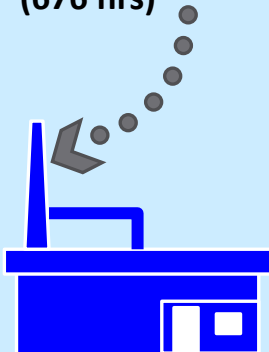
NRC FORM 374	U.S. NUCLEAR REGULATORY COMMISSION		Page 1 of 5
MATERIALS LICENSE			
Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and 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.			
Licensee			
Framatome Inc.		License Number: SNM-1227, Amendment 13	
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; margin: 0 auto;"> <p>This license contains SENSITIVE SECURITY-RELATED Information. Upon removal of the Sensitive Conditions on Page 5, this document is decontrolled.</p> </div>			
Enclosure 1			

NRC On-site Core Inspection Effort

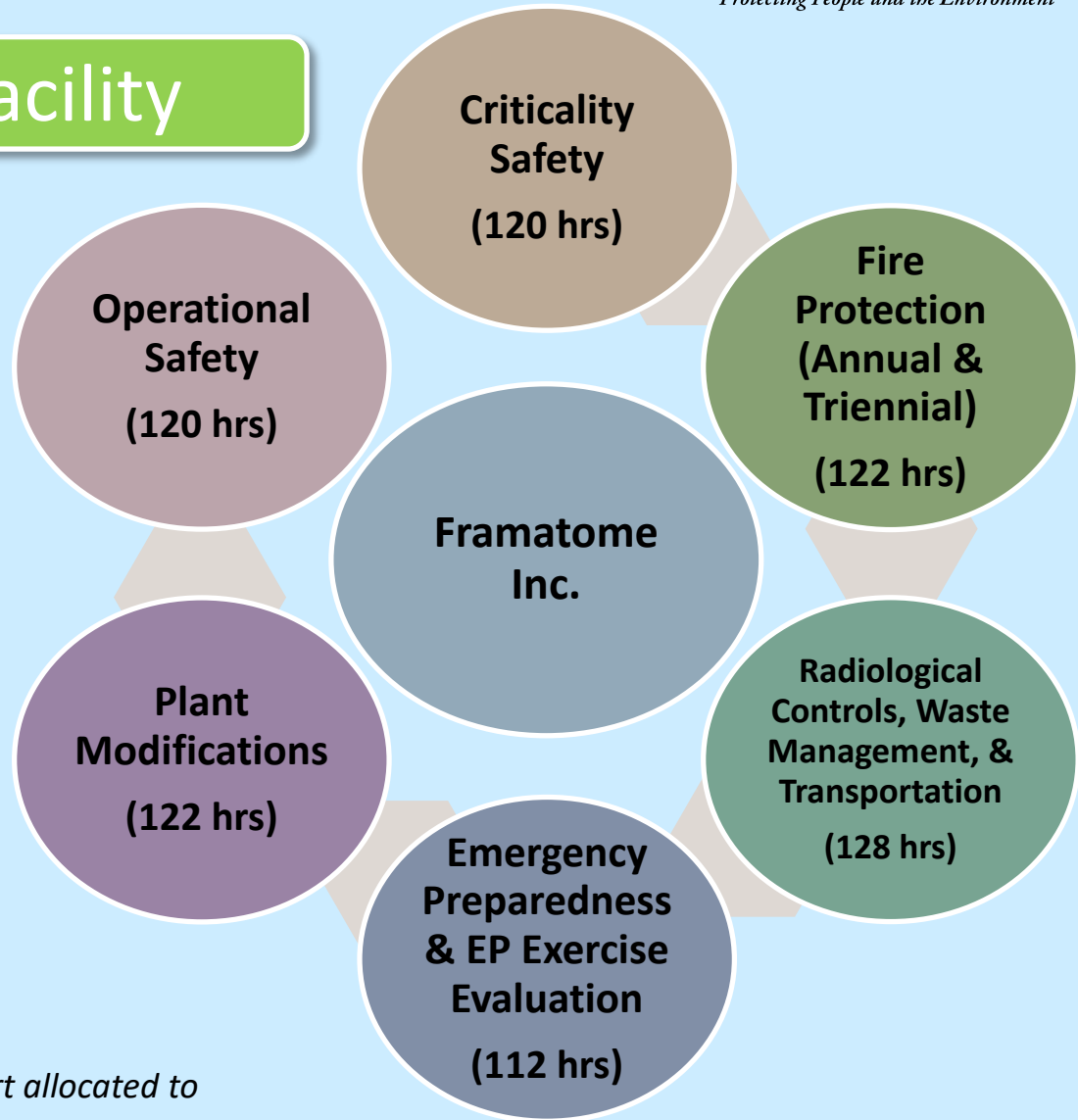
Category III Fuel Facility



Region 2
Inspectors
(676 hrs)



Category III Fuel Facility



Note: The hours above represent the estimated effort allocated to on-site routine inspections every two years.

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



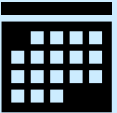


Licensee Performance Areas

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.



Radiological Controls

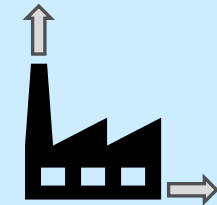
Radiation Protection

- Members of the Public
- Plant Workers



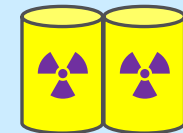
Effluent Control and Environmental Protection

- Program Implementation
- Liquid and Gaseous Effluents



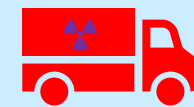
Waste Management

- Processing, Handling, Storage, & Transportation of Waste



Transportation

- Receipt, Packaging, & Delivery of Radioactive Materials





Licensee Performance Areas

Facility Support

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





Licensee Performance Areas

Other Areas

EXAMPLES

- Plant Events, Incidents, Special Issues, Follow-Up, Safety Assessment, Deviations from Commitments in Confirmatory Action Letters or Confirmatory Orders, and Labor Difficulties





LPR RESULTS

- Framatome continues to conduct licensed activities safely and securely; protecting public health and the environment.
- Framatome has established satisfactory performance. No areas needing improvement were identified.

NRC Response

NRC Inspections in 2020: NRC Core inspection program [IMC 2600 Appendix B]





Smarter Inspection Program

- Included all areas of safety and safeguards as referenced in IMC 2600 and IMC 2683
- Excluded: physical protection, classified material, and information security
- Stakeholder engagement
 - Held 10 public meetings thus far
 - Proactive engagement with stakeholders
 - Received multiple letters from NEI

NRC Response to



● Mission Critical Functions

- Monitoring plant activities remotely 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
- On-going Review of Continuity of Operations Plan (COOP)
- Coordinating actions with industry to minimize inspection schedule impacts while protecting inspectors and plant staff



Contacting the NRC

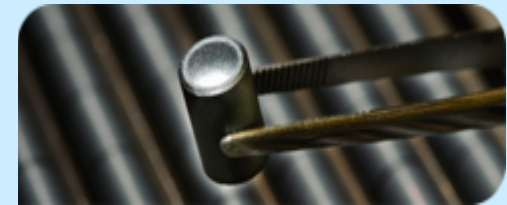
- Website – www.nrc.gov
- Questions/Information –
OPA2.Resource@nrc.gov or 404-997-4417
- Allegations – 1-800-695-7403



Summary

Licensee Performance Review Summary (2018-2019)

- Framatome conducted activities safely and securely
- No area needing improvement (ANI) was identified in the performance areas
- NRC will conduct a core (routine) inspection program for the next performance assessment cycle





Framatome's Remarks



Richland Fuel Manufacturing Facility

Licensee Performance Review

April 7, 2020

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 575 employees and 25-30 contractors
 - We operate 24 hours a day, 7 days a week
- Received the first 40-year fuel fabrication license 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 water and pressurized water reactor designs
- Manufactured more than 60,000 fuel assemblies



Fuel fabricated at the Richland site accounts for approximately 5 percent 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

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

10+
Types
of PWR and BWR fuel

Manufacturing

Utilizing a
Global Team of Experts
with unmatched industry experience



Environmentally friendly
Patented Dry Conversion process
to  **UF₆**  **UO₂**



Recognized for
14 Consecutive
Years with
No Areas
Needing
Improvement

The highest positive rating provided by the **NRC**

framatome

North America Standards of
Operational Excellence



SAFETY. First and foremost,
the critical success factor for our
people, products and services.



QUALITY. First time, every time.



PERFORMANCE. Fueled by
our people and innovation for
our customers.



DELIVERY. Reliable,
predictable and consistent.

Continuous Improvement Organization

Focused on Operational Excellence

Safety is our overarching value and drives everything we do

- Recently surpassed 900 days without a lost time injury onsite
 - Equates to approximately 3 million hours worked
- Longest duration since safety metrics have been recorded

OSHAS 18001 certified since 2005

Richland Site Continuous Improvement Processes



Lean Six Sigma

- Based on Lean philosophy; right the first time, every time!
- Application of the Lean Six Sigma methodology

DevonWay – problem identification/resolution

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

Human Performance

- Observation Program – reinforce good behavior and corrective action for areas needing improvement
 - Employees submitted on average 1,200 'Good Catches' per year
- Here & Now team meetings
- Human performance training lab – more than 400 personnel participated in workshop focused on error-prevention tools

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 2019 Collective Total Effective Dose Equivalent that was lowest in 25 years.
- Remote monitoring systems installed to improve ALARA.
- Control system updates in uranium recovery processes.
- Radio Frequency Identification (RFID) technology deployed in Dry Conversion and Specialty Fuels facilities to track movement of personnel and monitoring of internal dose.
- Continued pursuit of environmental excellence through ongoing improvement via ISO 14001 environmental management system. Certified since December 2005.

Safety Achievements / Improvements



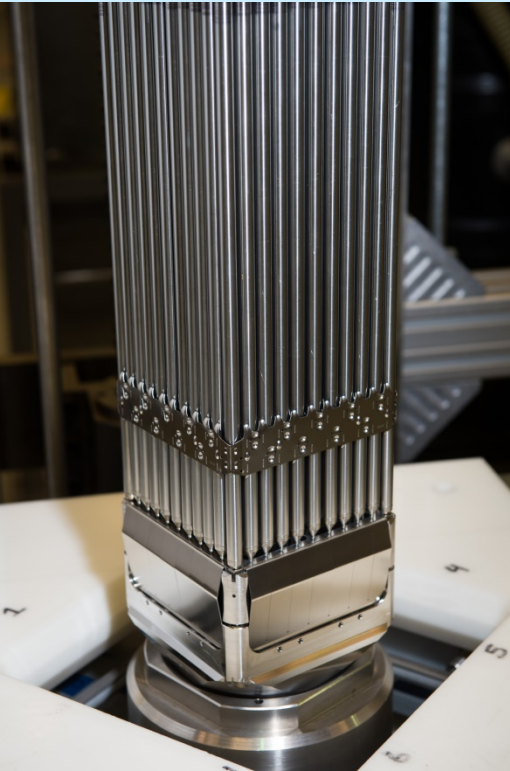
- All legacy mixed waste drums have been disposed.
- Major recycling/re-use activities involving NRC-licensed and support processes (hydrofluoric acid, ammonium hydroxide, used oil, used machine coolants, paper/cardboard, scrap metals, wood, and batteries).
- Continued improvement in groundwater quality since removal / remediation of surface impoundment system. All six down-gradient monitoring wells consistently below Federal primary drinking water limit for fluorides (4 ppm); last sampling (Nov. 2019) shows no wells above Federal uranium drinking water limit of 30 ppb.
- Approximately 500 Class 7 radioactive material shipments completed over CYs 2018/2019 without incident.
- Continued usage of TN Americas for expert transportation services (logistics, container fleet management, carrier management, transportation security, packaging licensing, etc.).

Safety Achievements / Improvements



- 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.
- Criticality safety training continues to include at-the-workstation interactive discussions between production and maintenance personnel and criticality safety staff.
- Close to 130 plant projects completed in 2018-2019, approximately one-third of which supported safety improvements.
- Startup of a new uranium recovery facility is in progress to replace aging uranium recovery facility. Commercial operation scheduled this year.
- 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 facilitate and drive for improvements in safety and regulatory compliance
- The Richland Site Management strives for operational excellence daily and promotes a culture of continuous improvement
 - Employees are encouraged and engaged in submitting their ideas to improve the site and processes
- We are committed to complying with our U.S. NRC and state approved operating licenses and all other applicable regulations

framatome

Thank You!



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*Informal Question and Answer
Session between the NRC and the Public*



Closing Remarks



Feedback

Feedback from members of the public will be conducted via e-mail. Please e-mail your feedback regarding the CY 2020 Framatome LPR Public Meeting to either:

Richard.Gibson@nrc.gov or

Gregory.Goff@nrc.gov