



Non-Power Production and Utilization Facility Oversight Branch

TRTR 2022 Annual Conference

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Office of Nuclear Reactor Regulation
US Nuclear Regulatory Commission

October 12, 2022



NPUF Oversight Branch Overview and Highlights

- **Functions**
- **Staffing updates**
- **Inspection Program**
- **Operator Licensing Program**
- **Program Performance**
- **Inspection and Operator Licensing Program – FY2022 Summary (afternoon session)**

Functions

- Non-Power Production and Utilization Facility Oversight Branch (UNPO)
 - Implements the NRC's safety and security inspection and operator licensing oversight programs for non-power production and utilization facilities (NPUFs) from initial licensing to decommissioning
 - Conducts the NRC's review of NPUF security plans and emergency plans and coordinates NRR's event response for NPUFs

Travis Tate, Branch Chief

- Craig Bassett – Inspector
- Kevin Roche – Inspector
- **Phil O'Bryan – Inspector**
- Mike Takacs – Security Specialist/Inspector
- **Bill Schuster – Inspector/Examiner/Security**
- John Nguyen – Examiner
- Michele DeSouza – Examiner
- Amy Beasten – **Examiner**
- Andrew Waugh – **Inspector/Security**
- Tuan Le – Examiner
- Dan Hoang – **Examiner**
- **Juan Arellano - Inspector**
- Nicole Parker – Licensing Assistant
- Zarva Taru – Op Licensing Assistant
- **Paulette Torres - RTR Examiner (support)**
- **Michael Balazik, RTR Inspector (support)**
- **Dan Bradley, Inspector on rotation from Reg. IV**

NPUF Inspection Program FY 2022 in Review

- Completed all baseline inspections in accordance with Inspection Manual Chapter 2545, “Research and Test Reactor Inspection Program”
- Completed a total of 44 on-site inspections
 - Security (10)
 - Safety (34)
- Completed NIST special inspection
 - Confirmatory Order
 - Supplemental Inspection Plan
- Completed 3 event-related inspections
 - Purdue 2nd overpower event (Event Response Inspection)
 - Penn State reactivity spike event (Routine Inspection Follow-up)
 - MURR – security event (Reactive Inspection)
- Initiated supplemental inspections

NPUF Inspection Program Activities

- **Guidance**
 - MD 8.3 revision – NPUF guidance
 - IMC 0615 “Research and Test Reactors Inspection Reports” revision
- **Other Initiatives**
 - Reactor Program System Integration
 - Inspection follow-up item tracking
 - Tracking/trending violations
 - Streamline inspection reports
 - Inspection report tracking
 - Tracking performance
 - Program evaluation
 - Support for reactor oversight process for advanced reactors
 - SHINE operational readiness and operations inspections



NPUF Operator Licensing Program FY 2022 in Review

- Facility examinations - 29
- Active licenses - 334
 - Reactor operators (RO) - 154
 - Senior reactor operators (SRO) - 180

Type	Total # of Written Exams	# of Written Exam Failures	(%)	Average Written Exam Grade	Average Written Failure Grade	Total # of Operating Exams	# of Operating Exam Failures	(%)
NEW	61	8	13.11%	85.71	73.13	61	1	1.64%
REAPP	4	0	0.00%	89.40		0	0	0.00%
RO	65	8	12.31%	85.94	73.13	61	1	1.64%
NEW	17	1	5.88%	88.36	66.30	17	0	0.00%
REAPP	2	0	0.00%	78.80		1	0	0.00%
UPGRADE	19	0	0.00%			19	0	0.00%
SRO	38	1	2.63%	87.79	66.30	37	0	0.00%
Total for HQ:	103	9	8.74%	86.32	72.37	98	1	1.02%

NPUF Operator Licensing Program Activities

- **Guidance**
 - NUREG 1478, Rev. 3
 - Radioisotope production facility operator licensing
- **Other initiatives**
 - ANSI/ANS 15.4 “Selection and Training of Personnel for Research Reactors” update – Working group
 - White Paper: Risk-insights for operator licensing medical examinations (RROAR)
 - Operator training workshop
 - Operator licensing examination modernization
 - Collaborative Learning Environment (CLE)



NPUF Operator Licensing Program Activities

- Other initiatives – cont.
 - Radioisotope production facility operator licensing
 - Operator Licensing Backlogs
 - Examination Results
 - Operator Certificates
 - License Amendments and Renewals

FY 2022 NPUF Program Performance

Timeliness Goals

- Inspection Reports (45 days)
 - 45.5% (2021 – 46%)
 - Avg: 50 days (2021 – 69 days)
- Examination Reports (90 days)
 - 93% (2021 – 74%)
 - 27.5% (60 days)
 - Avg: 69.8 days (2021 – 85 days)

Contact Info:

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Non-Power Production and Utilization Facility (NPUF) Oversight

Inspection and Operator Licensing – FY2022 Summary

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NPUF Inspection Program FY 2021 in Review

Enforcement

- **Severity Level IV, Non-cited (licensee identified) Violations (8)**
 - Utah: reactor pool water TS limits
 - MURR (3): rad levels above limits, inoperable shim control blade, reactor core outlet pressure channel failure
 - New Mexico: safety rod operability failure
 - Oregon State: security related
 - Penn State: thermal power limit exceeded
 - Reed: security related

NPUF Inspection Program FY 2021 in Review

Enforcement (cont.)

- **Severity Level IV Violations (5)**
 - MS&T (2): Operator medical examination; excess reactivity, rod worth, and shutdown margin measurements
 - RPI (2): Safety Committee Meeting frequency; radiation monitoring calibrations
 - Utah (1): security related
- **Escalated Enforcement**
 - 7 violations of NRC requirements
 - Alternative dispute resolution
 - Confirmatory Order

- No common safety themes
- No significant trends
- Challenges
 - Safety culture issues
 - Loss of experienced staff
 - 50.59 evaluations
 - Documentation
 - Safety oversight committee meeting documentation
 - Operator license documentation

NPUF Operating Licensing Summary

- Restoring exam schedule discipline
- Reduced number of failures
- Reconciling facility operator licenses
- Challenges
 - Timely submittals of application materials
 - Handwritten NRC Forms 398/396
 - NRC MRO batch submittals and reviews
 - Waivers - medical

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