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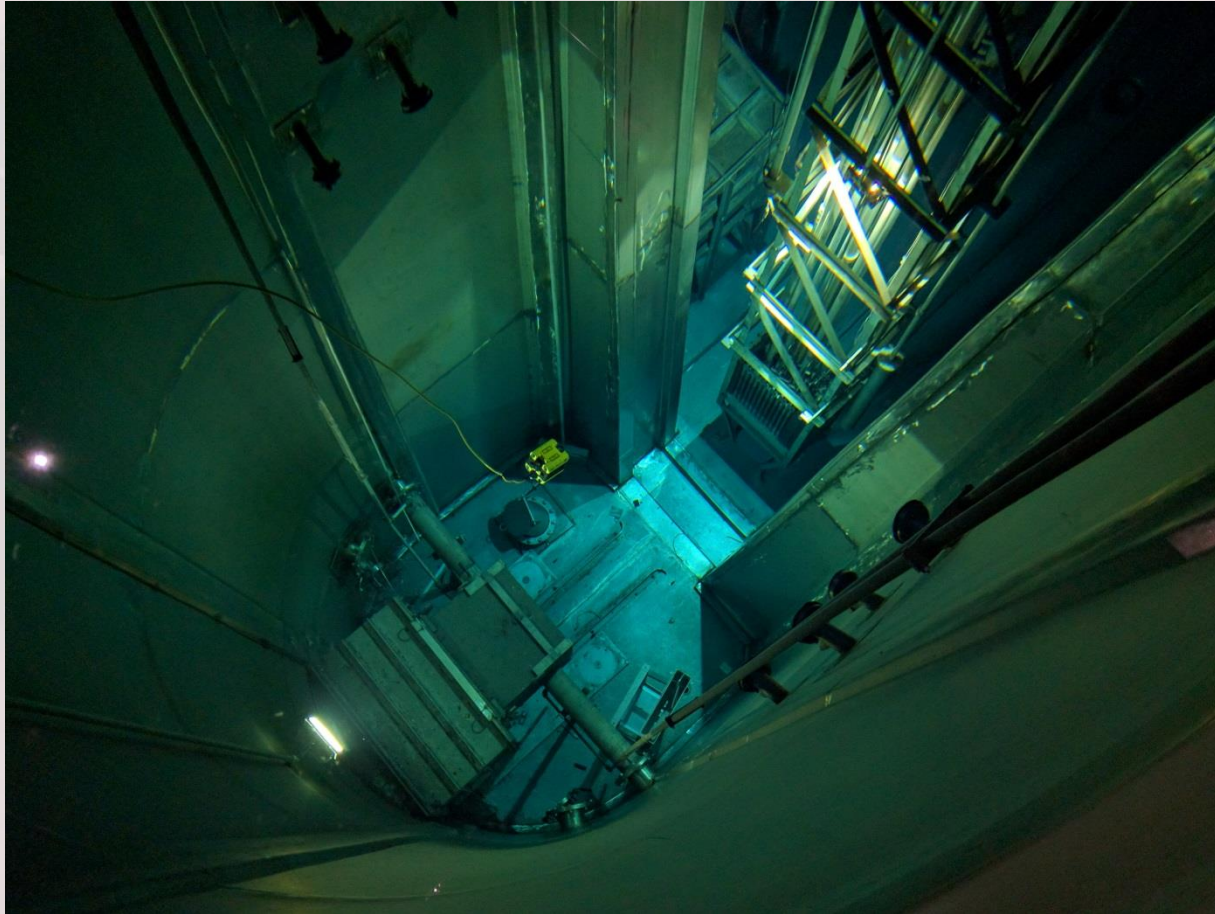
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TRIGA Facility Improvements at Texas A&M: Equipment and Administration

Jerry Newhouse & Sean McDeavitt

August 2016

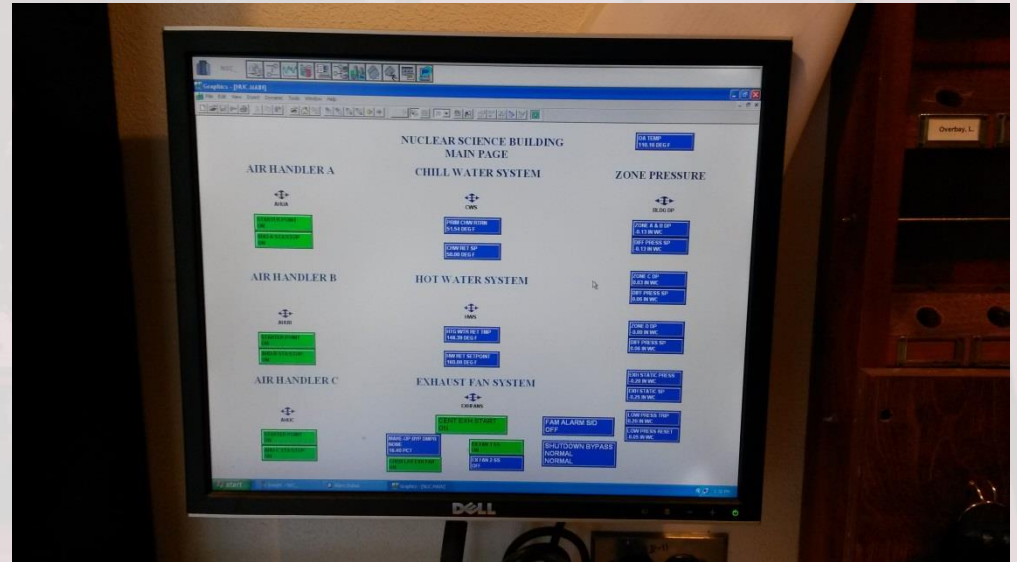
Loosely Related Picture Intended to Grab Your Interest



Introduction

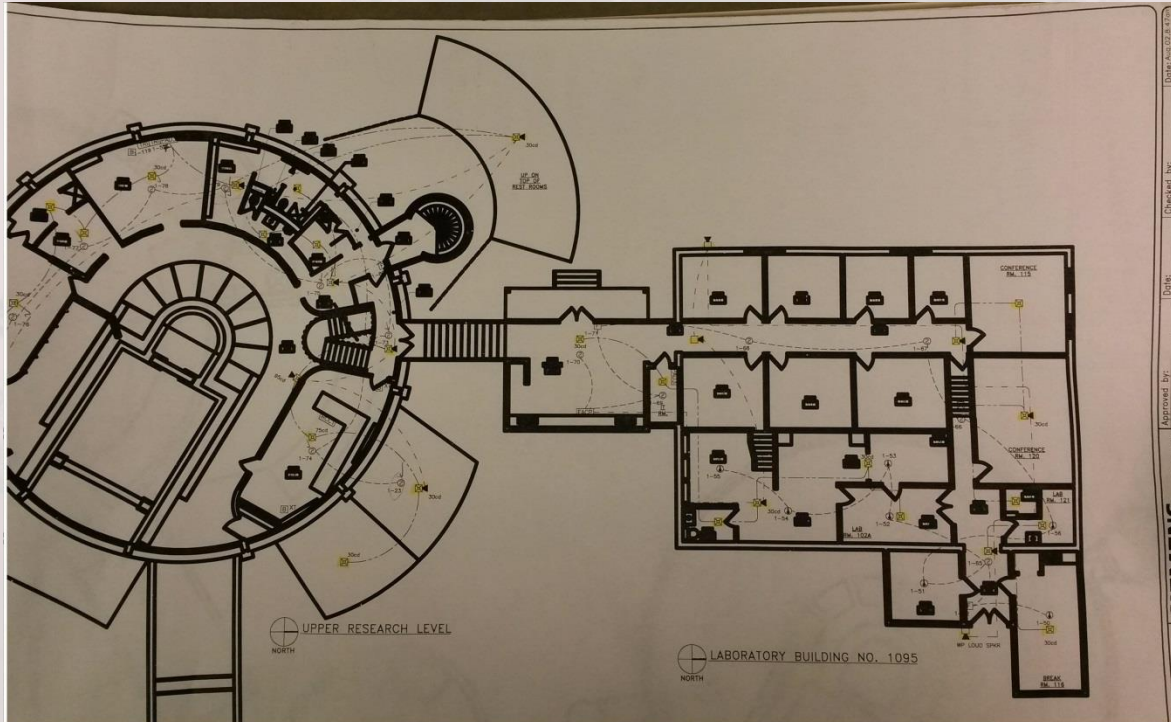
- Over the past few years we have replaced a lot of aging infrastructure
 - Ventilation
 - Fire Detection
 - Security
 - Transient Rod Air Supply
 - Primary Cooling Pump
 - Cooling Tower
 - Heat Exchanger
 - Facility Air Monitors
 - Demineralizer
 - Lower Research Level
 - Electrical Distribution (in progress)

Ventilation System



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Fire Detection



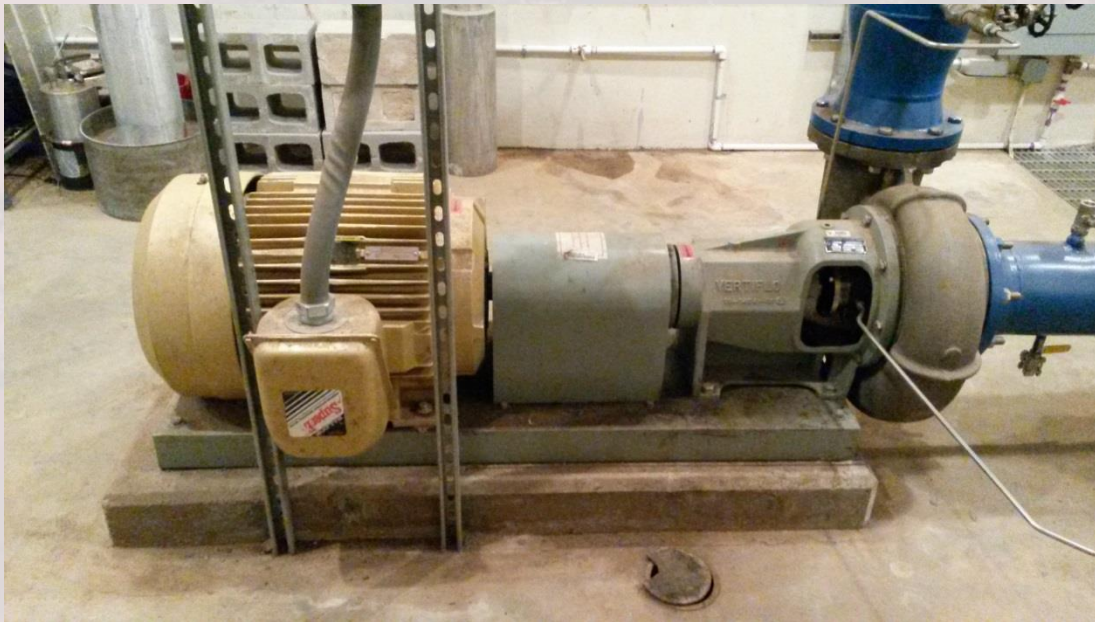
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Primary Cooling Pump & Cooling Tower



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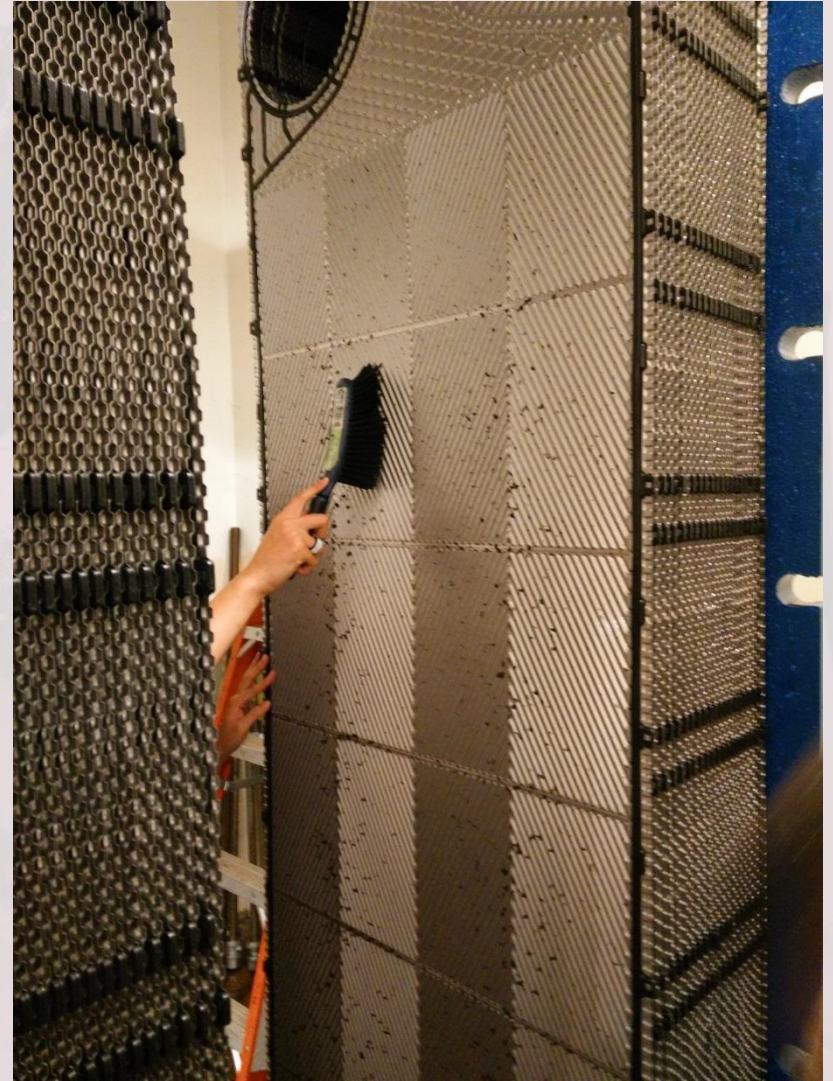
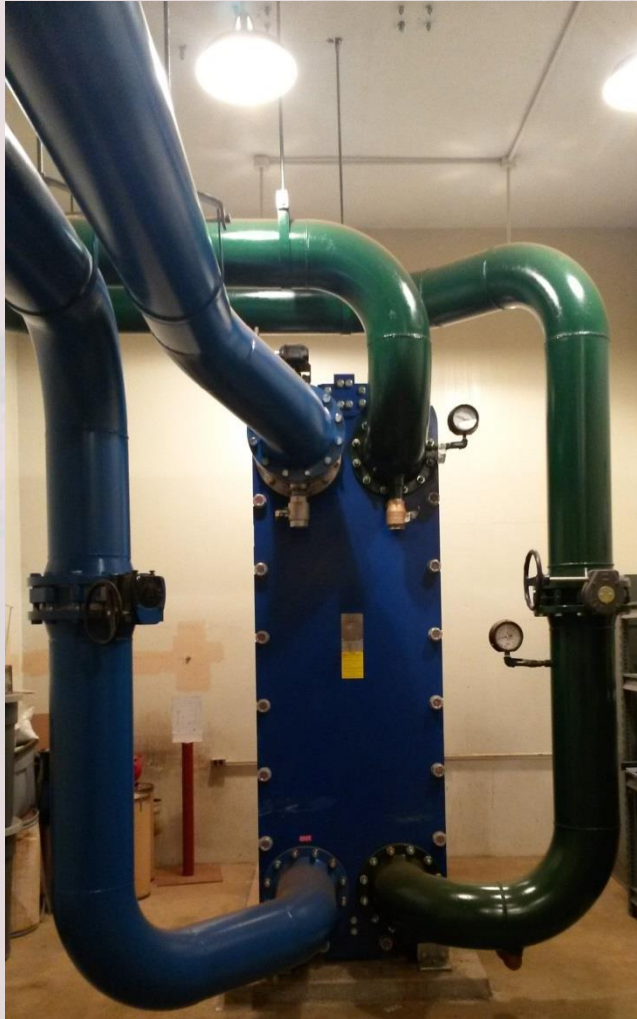
Primary Cooling Pump & Cooling Tower



Heat Exchanger



Heat Exchanger



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Demineralizer



Demineralizer



Lower Research Level



Lower Research Level



Lower Research Level – Manipulator Cell



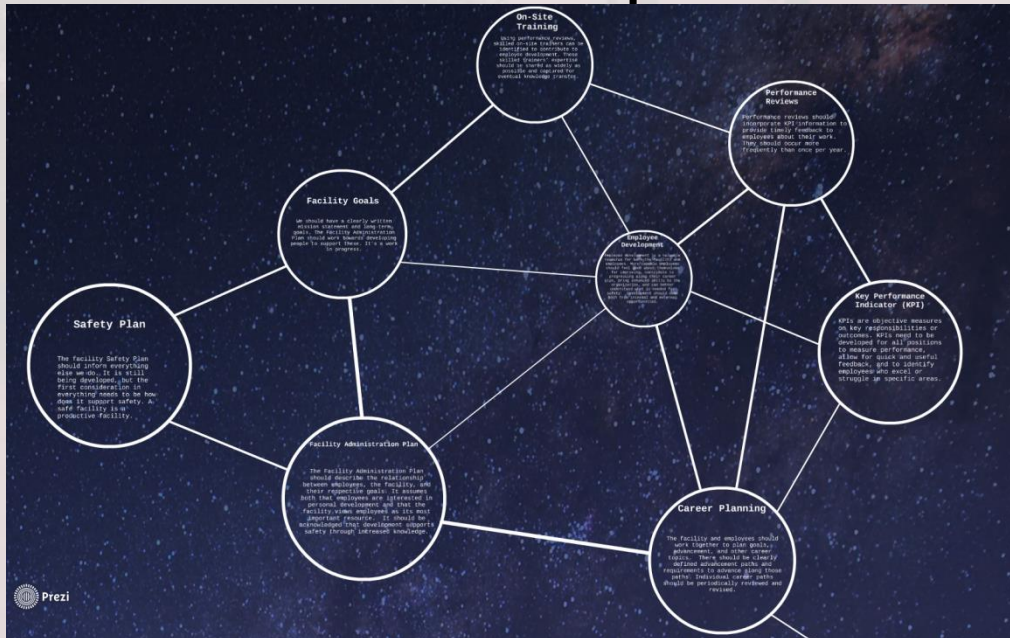
Now What



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Administration Plan

- Transition from personality-driven to standards-driven
- Web of interconnected components



Administration Plan

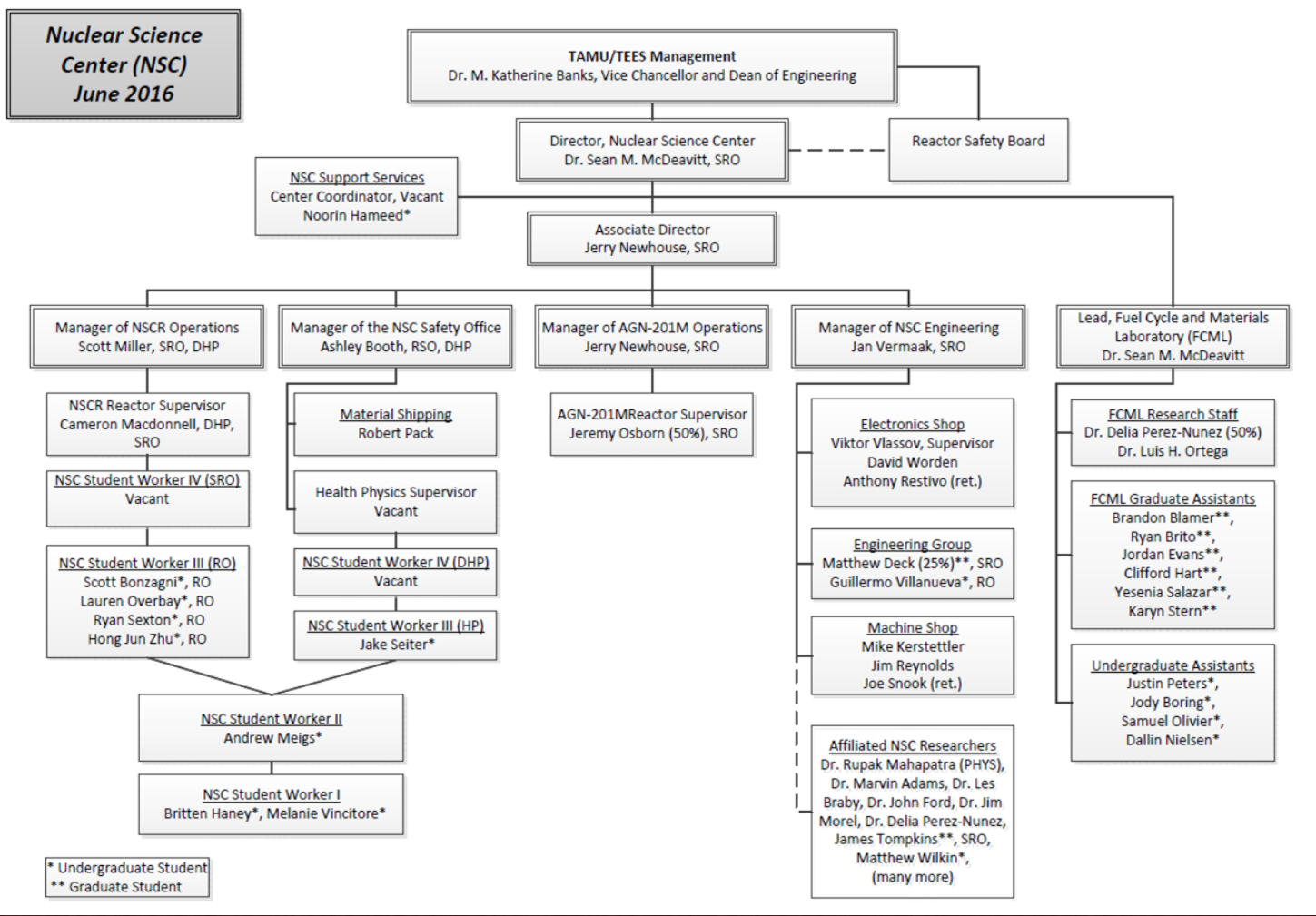
- Overall Safety Plan
- Facility Administration Plan
 - Describes the relationship between employees, the facility, and their respective goals
 - Assumes employees are interested in personal development
 - Assumes employees are considered our most important resource
 - Employee development supports safety goals through increased capability

Administration Plan

- Facility Goals
- Employee Development
- On Site Training
- Career Planning
- Well Defined Positions
- Key Performance Indicators
- Performance Reviews

Work Completed or In-Progress

- I



Work Completed or In-Progress

- Safety Plan
 - Top level document that informs all actions
 - Includes nuclear, chemical, lab, industrial, etc.
 - INPO 12-012: Traits of a Healthy Nuclear Safety Culture

Work Completed or In-Progress

- Facility Goals
 - No stated vision and a pretty lame mission statement
 - IAEA-TECDOC-1212, “Strategic planning for research reactors”
 - INPO 12-012 WE.2 Opinions are Valued: Individuals are encouraged to voice concerns, provide suggestions, and raise questions. Differing opinions are respected.
 - Facility-wide input on new mission statement
 - Generated a vision for the future and a mission for how we will get there.

Employee Development

- Employees are encouraged to participate in continuing education and receive support
- Full-time employees:
 - Two restarted previously abandoned bachelor studies
 - One to start MS
 - One on MS track
 - One new MS
 - One recent thesis defense and on Ph.D track
 - One on Ph.D track
- Conferences and operator exchanges
- Emphasized on performance evaluations



Work Completed or In-Progress

- Well Defined Positions
 - INPO 12-012 LA.6 Roles, Responsibilities, and Authorities: Leaders clearly define roles, responsibilities, and authorities to ensure nuclear safety
 - Conducted a review of the actual responsibilities of all employees and compared them to their job descriptions
 - Adjusted job titles, duties, and reporting chains

Future Work

- On Site Training
- Career Planning
- Key Performance Indicators
- Performance Reviews
- Continued improvement in other categories



Thank you, Questions?

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