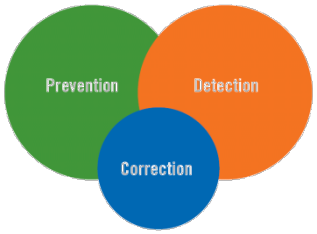
# License Amendment Request
# Adoption of TSTF-505
# Risk-Informed Completion Times

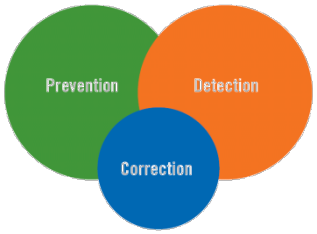
Pre-submittal Meeting

June 24, 2014

# Agenda

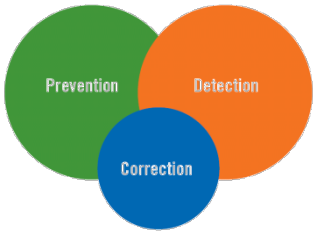



- License amendment request (LAR) scope and schedule
- LAR Clarifications for TSTF-505
- Probabilistic risk assessment (PRA) model
- Implementation of risk-informed completion times (RICT)
- Training and communication
- Takeaways
- Questions/Staff Feedback




# LAR Scope

- LARs are aligned with model application and follow TSTF-505
- RICT proposed only for systems in the scope of TSTF-505
- RICT program will be implemented in Modes 1 and 2 only




# LAR Schedule

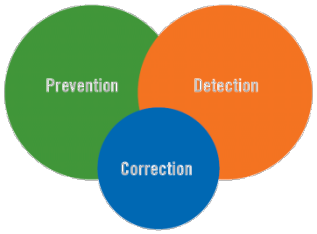
- **Planned submittals**

  – *Third quarter 2014*

    St. Lucie Unit 1 & 2 (PSL)

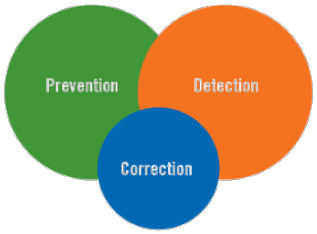
    Turkey Point 3 & 4 (PTN)

# LAR Clarifications for TSTF-505




- **Different TS Format and Numbering from Improved Standard Technical Specifications (ITS)**
  - PSL
  - PTN
- **Table 1 in LAR**
  - Cross references TSTF-505 and plant-specific Technical Specifications (TS)
  - Identifies candidate TS for RICT
  - Cross references Required Actions (RAs) in TSTF-505 and corresponding RAs for PTN TS

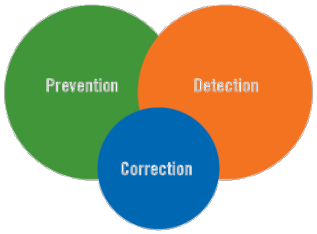
# LAR Clarifications for TSTF-505



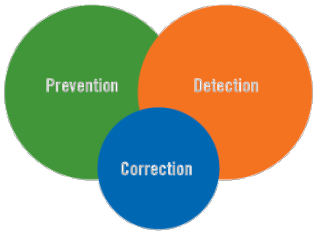

- **TS Bases**
  - Bases revised, as applicable, to discuss completion times consistent with TSTF-505
  - Bases revised to discuss the actions and notes related to conditions for two or more inoperable trains or subsystems

- **TSTF-505 Editorial Error**
  - TS 3.3.1, Function 20 is missing the Condition for two or more channels inoperable
  - PTN LAR proposes to include action for two or more channels inoperable (reactor trip breaker trip mechanisms)

# LAR Clarifications for TSTF-505



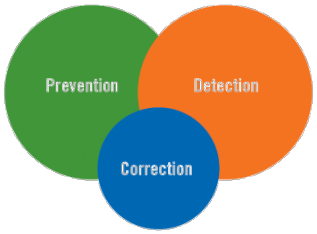

- **TS 3.3.5, LOP DG Start Instrumentation**
  - TS not in non-ITS plant; function included in PTN ESF TS
  - ITS already addresses two or more channels inoperable
  - PTN LAR proposes to add new action to address two or more channels inoperable
- **TS 3.5.2, ECCS**
  - ITS actions based on ECCS flow capability
  - Non-ITS plants do not address flow capability
  - PTN LAR proposes RICT for component inoperability




# LAR Clarifications for TSTF-505

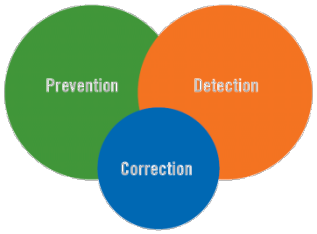
- **Trains / Components**
  - ITS address single and multiple inoperable trains
  - Non-ITS plants address inoperable components rather than trains
  - PTN LAR proposes RICT for single and multiple inoperable components
- **Electrical Power**
  - PTN TS actions for operable equipment without emergency power source
  - PTN LAR proposes to apply RICT when emergency power source unavailable (consistent with applying RICT to TS for AC Sources)

# PRA Model Status



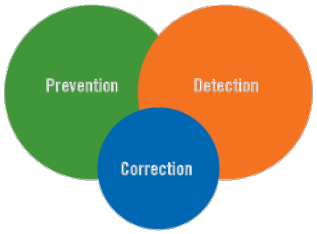

- **All sites conform to NRC PRA Quality Standard (RG 1.200 Rev 2) for Internal Events PRA**
- **NFPA 805 Fire PRA**
  - *Duane Arnold (PDA) NFPA 805 fully implemented. PTN, PSL, and Point Beach (PBN) in review by NRC. Seabrook (SEA) staying with Appendix R (MSO's incorporated)*
- **External Events assessment**
  - *GAP assessment performed in 2012 for SEA as a fleet model*
  - *Tornado/High Winds PRA completed for PBN*
  - *Seismic risk being calculated based on new GMRS*

# PRA Model Status



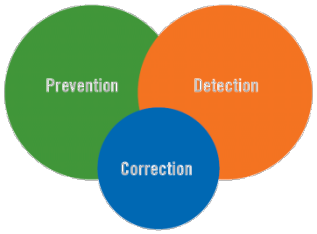

- Shutdown modes (4 & 5) will only be included for Seabrook since other plants do not have shutdown models

# PRA Model Status




- Peer review findings/observations have either been closed or will be addressed in the LAR with a resolution path identified with respect to risk-managed tech specs (RMTS) application

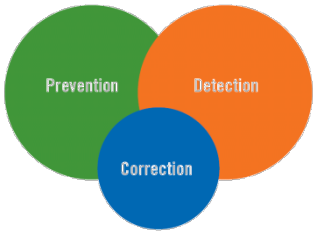
- PRA model is under configuration control with approved procedures for periodic and immediate updating to reflect as-built, as-operated plant




# Impact of External Events

## Fire

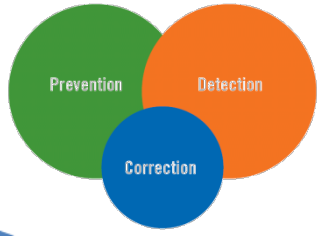
- Modifications have been credited in development of NFPA 805. Compensatory actions as addressed in NFPA 805 LAR will be implemented until plant modifications are complete
- For Seabrook, Fire PRA does not conform to RG 1.200. A gap assessment has been performed against the RG and efforts underway to close gaps. Any gaps not closed will be addressed in the LAR for their impact
- Insights from fire have been incorporated into maintenance rule (a)(4)




# Impact of External Events

## Seismic

- Seismic for PTN, PSL, PBN and PDA
  - Justification will be provided for minimal impact on RICT calculation
- Seabrook has all modes PRA that takes into account seismic contribution. The seismic part is not RG 1.200, therefore impact will be addressed




# FLEET PRA EXCELLENCE

## USE OF RISK IN OPERATIONAL DECISION MAKING

Excellence Means:

- Expand use of PRA technology in the Plant Decision Making Process
  - ✓ NFPA 805 implemented.
  - ✓ Fire PRA included in on-line risk monitor
  - ✓ GSI 191 resolved by 2016.

## FLEET OPERATES ON ONE PLATFORM

Excellence Means:

- Resources Optimized
  - ✓ Fleet PRA staff all work as a team. Anyone can be assigned to support any plant.
  - ✓ All fleet PRA models are similar in structure and methodology, including on-line risk monitors.

## QUALITY PRA MODELS

Excellence Means:

- The models reflect the as-built, as-operated plant.
- Models meet the latest regulatory requirement.
- Other utilities benchmark NextEra.
- Include external events PRA, external floods, seismic, high winds, and fire.

## FLEET PRA STANDARDIZED TRAINING

Excellence means:

- Training for Operations, Work Management, and Engineering is standardized across the fleet.
- Fundamental PRA concepts understood by plant personnel managing plant risk.

## IMPROVE PLANT FLEXIBILITY

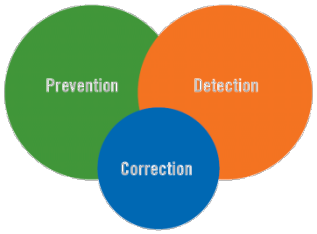
Excellence Means:

- Risk-informed Tech Specs (4b). Allow AOT beyond current TS limits.
- Risk-informed testing frequency under plant control (5b). Optimize surveillances based on risk.
- Develop low power shutdown models to optimize managing outage risk.
- Risk-informed procurement (50.69).

## EFFECTIVE COMMUNICATION OF RISK

Excellence Means:

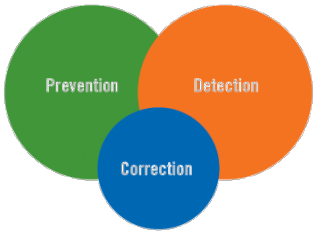
- Operations understands high risk actions.
- Risk is used in decision-making process across the site.
- Work with the NRC to ensure their models reflect the as-built, as-operated plant. Differences are understood prior to SDP issues.
- Improved reliability of risk significant components (Implement guidance from INPO 12-008, Rev1).



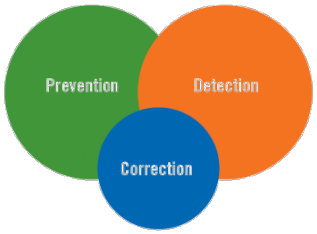

# Configuration Risk Control

- Configuration Risk Calculations
  - All plants use CAFTA for PRA quantification and model development except that SEA uses Riskman
- EPRI Phoenix Risk Monitor will be used for Risk Managed Tech Specs, Configuration Risk Management Program (CRMP), and RICT program
- Maintenance Rule (a)(4) plans to use same calculation method and tool for non-RMTS conditions

# Risk Informed Completion Times

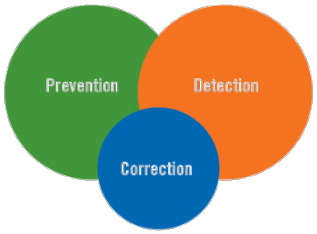



- The RICT processes and technical approach will be structured similar to South Texas Project (Operations/Work Control centered)
- Software tools and procedures will be implemented to ensure compliance with requirements
- Organization and position specific training and communication plan will be established to appropriately train plant staff



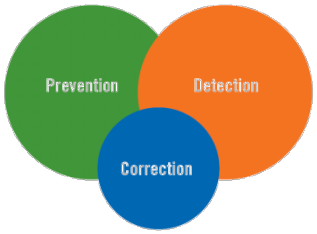

# Risk Informed Initiatives

| Site | 4b<br>*Planned LAR Submittal* | FIRE MR (a)(4)<br>*Implemented* |
|---|---|---|
| **PSL** | 3rd Quarter | 2013 |
| **PTN** | 3rd Quarter | 2013 |
| **PDA** | 3rd Quarter | 2013 |
| **PBN** | 4th Quarter | 2013 |
| **SEA** | 4th Quarter | 2013 |




# Training and Communication

- **Scope of training for RICT Program**
  - Requirements of the program
  - Configuration risk management program software
  - TS Actions included in the program
  - Implementing procedures
- **Selected Site and Corporate Personnel**




# Take Aways

- **RICT proposed only for SSCs in scope of TSTF-505 and modeled**
- **PRA quality for internal events meet RG 1.200**
  - *Required for Risk Informed applications, LARs, etc.*
- **External events gap assessment completed**
- **Effective plant communications of risk insights**
- **Transition to NFPA 805 at 4 sites provides confidence in the PRA quality**
- **Control of model will be maintained by one set of fleet procedures and a common implementation tool**
- **Implementing risk informed initiatives for fleet**
  - *4b and 5b.*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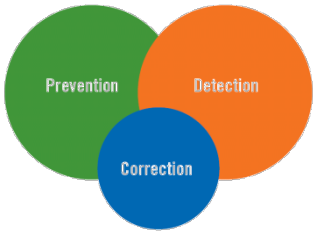


# Questions / Staff Feedback