



# Additional Actions for Backup Reactor Trip and Engineered Safety Feature Actuation Instrumentation – Farley Nuclear Plant (FNP)

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# Agenda Items

1. Introductions
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5. Proposed Change
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# Purpose of License Amendment Request



# Purpose

- Current Reactor Trip System (RTS) and Engineered Safety Feature Actuation System (ESFAS) instrumentation technical specification (TS) action requirements make no distinction between primary and backup trip/actuation instrumentation.
- With a few exceptions (e.g., intermediate and source range monitoring), when multiple channels of an instrument function are inoperable, current TS actions do not provide any time to troubleshoot and repair the inoperable channels regardless whether the instrument function is credited as the primary instrument function or a backup instrument function.



## Purpose

- Currently, this condition requires application of LCO 3.0.3 regardless of the instrument function.
- A unit shutdown under this condition for backup instrumentation is considered overly restrictive because a reactor trip or ESFAS initiation on these backup instrument functions is not credited as a primary trip or initiation function in the FNP accident or transient analysis.



Precedent



## Recent Precedent

- Following license amendments issued to SNC on November 7, 2018 for FNP Units 1 and 2, License Amendments 211 and 218, respectively (NRC ADAMS Accession No. ML18271A207), it was noted by SNC personnel that there are a number of RTS and ESFAS instrument functions that meet the same criteria as the ESFAS high steam flow instruments (i.e., these instrument functions are not assumed as the primary trip/actuation instrument function in any accident or transient analysis).
- The NRC staff approval for FNP License Amendments 211 (Unit 1) and 218 (Unit 2) was based on the same justification that the related instrumentation is not assumed in any safety or transient analysis.



Proposed Change



## Proposed Change

Add additional actions in TS 3.3.1, “RTS Instrumentation,” and TS 3.3.2, “ESFAS Instrumentation,” that allow 72 hours to restore channels to Operable status when multiple channels of a backup instrument function are inoperable.



# Proposed Change

Instrument Functions affected:

- RTS Functions:
  - Function 9, Pressurizer Water Level – High
  - Function 12, Reactor Coolant Pump (RCP) Undervoltage
  - Function 13, RCP Underfrequency
  - Function 15.a, Turbine trip on Low Auto Stop Oil Pressure
  - Function 15.b, Turbine trip on Turbine Throttle Valve Closure
- ESFAS Functions:
  - Function 1.e(2), Safety Injection on High Differential Pressure Between Steam Lines
  - Function 4.e, Steam Lin Isolation on High Steam Flow in Two Steam Lines (Modify Condition M)



# License Amendment Request Content



# License Amendment Request Content

Enclosure:

Basis for Proposed Change

Attachments

1. Technical Specification Marked-up Pages
2. Revised Technical Specification Pages
3. Technical Specification Bases Markup-up Pages (For Information Only)



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