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Risk Informed Completion Times Licensee Experience

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Braidwood Generating Station – Exelon Nuclear

TSTF-505 Overview

- TSTF-505 license amendment requests (LAR) approval for Braidwood in March 2020.
- A new Risk-Informed Completion Time (RICT) program was added to the Administrative Controls section of TS
- RICT is only applied in Modes 1 and 2 (Exelon does not have a Shutdown PRA so Modes 3 and 4 were not included)
- RICT may not exceed 30 days
- If TS LCO is not restored prior to reaching RICT, then TS requirements for plant shutdown or other remedial action become applicable
- RICT is not permitted for a loss of TS safety function configuration or inoperability of all required safety trains
- Impacts on baseline CDF and LERF are periodically monitored



TSTF-505 Benefits

- **Emphasis on risk-significant configurations**
- **Increased control of plant configuration during SSC unavailability**
- **Avoided shutdowns = Avoided safety challenges**
- **Reduced use of NOEDs**
- **Increased flexibility in scheduling maintenance**
- **Shorter, less-complex refueling outages - Outage work moved online**
- **Reduced organizational 'stress' with short work windows**
- **Increased plant availability and capacity factors**

RICT Examples at Braidwood

- Station Auxiliary Transformer (SAT) work window – Fall 2020
 - Normally requires 3 separate 72-hour LCO windows to complete all PMs on both transformers.
 - Work window scope revision with RICT requires a single LCO window.
 - Results in less EDG and equipment manipulations.
- Component Cooling Water (CC) system Heat Exchanger (HX) work – Winter 2021
 - CC HX flange degradation identified in 2011 required repairs to ensure minimum wall criteria/maximum allowable wall stresses are maintained.
 - Outage work scope would have required an ~12-day work window that would be scheduled only 12 hours off outage critical path.
 - 51 hours of scope expansion contingency work would potentially challenge overall outage duration and goals.
 - Significant challenge to Shutdown Safety profile and Shutdown Cooling availability.