CENG
a joint venture of
Constellation Energy
EDF

DOE/EPRI/CENG Nuclear Plant Life Extension Demonstration Project

U. S. NRC Regulatory Information Conference
Session W24 – Reactor License Renewal: Research Supporting Long Term Operation

Mark Flaherty
Manager, CENG Fleet Nuclear Engineering

March 9, 2011

Agenda

- Background
- Project Activities to Date
- Currently Planned Project Activities

Background

- In August 2009, LTO Advisors asked EPRI to identify a generic pilot plant to investigate license renewal issues
- In 2009 4th Quarter, CENG CEO and CNO offered Nine Mile Point Unit 1 (NMP1) and Ginna as pilot plants
  - Ginna is the industry's oldest operating PWR
  - NMP1 is the industry's 2nd oldest operating BWR by 4 months
- Collaboration between EPRI, DOE, and CENG to be conducted through DOE Light Water Reactor Sustainability Program and EPRI Long Term Operation Project
- Project agreement reached in April 2010

Project Activities to Date

- Planning meetings between DOE, EPRI, and CENG
- EPRI data collection
- Observations of Ginna Containment tests/inspections
- Significant EPRI interfacing with Ginna Subject Matter Experts
- Conduct of methodology demonstrations at Lucius Pitkin (EPRI contractor) offices/lab (October 2010) and Lehigh University (December 2010)
- Weekly conference calls between DOE, EPRI, and CENG since end of July

Currently Planned Project Activities

- At NMP1 during the Spring Refueling Outage (RFO)
  - Monitoring of Reactor Vessel Internals (RVI) inspection
  - Participation in Containment In-Service Inspections
- Ginna
  - Installation/use of additional Containment monitoring methodologies prior to Spring RFO
    - Installation of new fiber optic strain gages on tendon shims, Containment rebar and concrete
    - Containment concrete carbonation test
  - Monitoring of Structural Integrity Test during the Spring RFO
    - Newly installed fiber optic strain gages
    - Digital Image Correlation
  - Monitoring of RVI enhanced inspection (MRP-227)
  - Participation in Containment In-Service Inspections