

# **Perspective on Areas of Focus for Aging Management (PWR and BWR)**

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# **CENG Background**

## **□ NMP**

- **Unit 1 entered its PEO on 8/23/09**
  - **2<sup>nd</sup> oldest operating BWR by 4 months**
- **Unit 2 enters its PEO on 10/31/26**

## **□ Ginna**

- **Entered its PEO on 9/19/2009**
- **Oldest operating PWR**

## **□ Calvert Cliffs**

- **1st plants to receive renewed licenses**
- **Unit 1 enters its PEO on 8/1/14**
- **Unit 2 enters its PEO on 8/14/16**

# **Nine Mile Point**

- 2011 NMP1 RFO full core offload BWRVIP inspections**
- NMP1 a pilot plant for DOE/EPRI NPLED Project**
  - Observe 2011 BWRVIP inspections**
  - Potential activities for 2013**
    - Additional RVI activities based on 2011 BWRVIP inspection results**
    - Top guide samples**
    - RV coupons**

# **Ginna**

## **☐ PWR RVI Program implementation**

### **➤ Extensive Ginna 2011 RFO inspection**

- 1<sup>st</sup> NEI 03-08 required Enhanced RVI inspections**
- RV fuel shroud baffle-former bolt replacement**
- RV upper internals split pin replacement & guide card wear inspection**

## **☐ Thimble Tube Inspection Program**

### **➤ Replacement of all 36 tubes during RFO**

## **☐ Ginna a pilot plant for DOE/EPRI NPLED Project**

### **➤ RVI**

### **➤ Baffle-former bolts**

### **➤ Previous RV coupon Charpy specimens**

# Calvert Cliffs

## □ PWR RVI Program implementation

- **1<sup>st</sup> MRP-227 based RVI inspections in 2018 (Unit 1) and 2019 (Unit 2)**

## □ CASS Program development and implementation

- **Being developed to be consistent with GALL Report (NUREG-1801), Rev. 2, guidance**

# Acronyms

- ❑ **BWRVIP – Boiling Water Reactor Vessel Internals Program (EPRI)**
- ❑ **CASS – Cast Austenitic Stainless Steel**
- ❑ **GALL – Generic Aging Lessons Learned**
- ❑ **MRP – Materials Reliability Program (EPRI)**
- ❑ **NUREG – Nuclear Regulatory Report (NRC)**
- ❑ **PEO – Period of Extended Operation**
- ❑ **PWR – Pressurized Water Reactor**
- ❑ **RFO – Refueling Outage**
- ❑ **RV – Reactor Vessel**
- ❑ **RVI – Reactor Vessel Internals**