



# **Crane Clean Energy Center**

**Request to Use Subsequent  
Edition of ASME Section XI for  
Inservice Inspection Activities**

**March 17, 2025**

# Introductions

- Constellation
  - Dennis Moore – Senior Manager, Corporate Licensing
  - Craig Smith – Senior Manager, Regulatory Assurance, Crane Clean Energy Center
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## Meeting Purpose and Goal

- Purpose

- Discuss a planned request to use a later edition of ASME Section XI per 10 CFR 50.55a(g)(4)(iv)
- Provide an overview of the restoration of the Inservice Inspection (ISI) and Inservice Testing (IST) Programs at Crane Clean Energy Center (Crane).
- Present the Constellation (CEG) approach towards 10 CFR 50.55a, “Codes and standards” in preparation of Crane restart

- Goal

- Obtain NRC feedback and insight on the following:
  - Planned request to use later Edition ASME Section per 10 CFR 50.55a(g)(4)(iv)
  - Proposed approach towards 10 CFR 50.55a at Crane to restore ISI and IST Programs

## Overview

- Three Mile Island, Unit 1 commenced commercial operation in 1974
- License renewal granted in October 2009 with the current Operating License expiring in 2034
- Due to market conditions, reactor shut down for retirement on September 20, 2019
- On September 20, 2024, Constellation (CEG) announced our intention to restore Three Mile Island, Unit 1, to commercial service and that we have signed a 20-year power purchase agreement (PPA) with Microsoft
  - Facility to be renamed Crane Clean Energy Center
- On October 25, 2024, CEG presented the Crane Clean Energy Center restart overview and regulatory path
- On November 19, 2024, CEG submitted its request for exemption from 10 CFR 50.82(a)(2), officially notifying NRC of Constellation's intention to return Crane Clean Energy Center to power operation

## Background on ISI and IST Programs

- Prior to retirement, Crane maintained ISI and IST programs as required by 10 CFR 50.55a, “Codes and standards”
  - Crane’s 4<sup>th</sup> ISI Interval started on April 20, 2011, and was scheduled to end April 19, 2022
    - The 2004 Edition of the ASME Boiler and Pressure Vessel (B&PV) Code, Section XI was the ISI Code of Record (COR)
  - Crane’s 5<sup>th</sup> IST Interval started on October 25, 2013, and was scheduled to end September 22, 2024
    - The 2004 Edition through 2006 Addenda of the ASME Operation and Maintenance (OM) Code was the IST Code of Record (COR)
- Upon permanent cessation of operations, Crane was not required by 10 CFR 50.55a to maintain ISI and IST programs

## Request to Use Subsequent Edition of ASME B&PV Section XI

- CEG intends to request approval to use portions of a later edition of ASME Section XI for the remainder of the 4<sup>th</sup> ISI interval in accordance with 10 CFR 50.55a(g)(4)(iv)
- 10 CFR 50.55a(g)(4)(iv) states:

*“Inservice examination of components and system pressure tests may meet the requirements set forth in subsequent editions and addenda that are incorporated by reference in paragraph (a) of this section, subject to the conditions listed in paragraph (b) of this section, and subject to Commission approval. Portions of editions or addenda may be used, provided that all related requirements of the respective editions or addenda are met.”*
- With NRC approval, Crane will use the 2013 Edition of ASME Section XI for Nondestructive Examination (NDE) and Repair and Replacement (R&R) activities required by the ISI program
  - The 2004 Edition of ASME Section XI will remain the 4<sup>th</sup> ISI Interval COR and will continue to be used for selection of ISI examinations
- Crane plans to extend the duration of the 4<sup>th</sup> ISI Interval to encompass plant restoration, as allowed by IWA-2430(e) for plants “out of service continuously for 6 months or more”

## Request to Use Subsequent Edition of ASME Section XI (cont.)

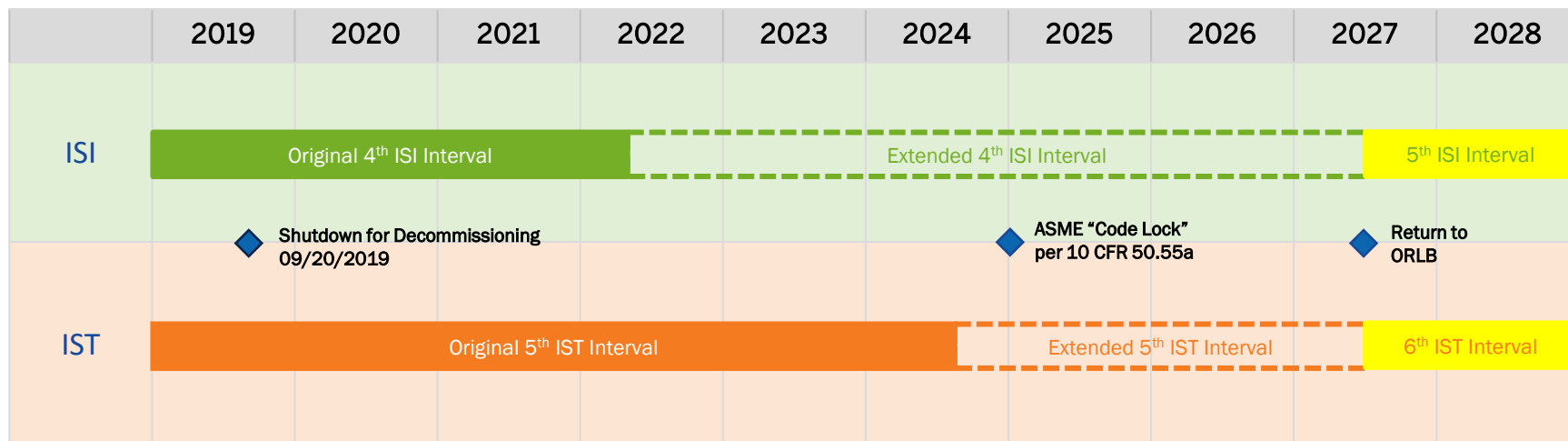
- If approved, request allows use of CEG fleet procedures for NDE and R&R activities
- Crane will comply with all conditions and limitations in 10 CFR 50.55a for the 2004 and 2013 Editions, as applicable
- Industry precedence exists with NRC authorization of similar requests
- Existing regulatory framework provides regulatory basis for NRC to review the request for authorization

## Restoration Plan for Crane ISI and IST Programs

- CEG will restore the Crane ISI and IST programs as required by 10 CFR 50.55a for light-water reactors with an Operating License
  - ISI and IST will support Crane's overall plan to assess plant condition and restore safe and reliable plant operation
- CEG will extend the duration of the Crane 4<sup>th</sup> ISI and 5<sup>th</sup> IST intervals to encompass plant restoration
  - Crane will maintain existing CORs for 4<sup>th</sup> ISI and 5<sup>th</sup> IST intervals
    - ISI: ASME B&PV, Section XI, 2004 Edition
    - IST: ASME OM, 2004 Edition through 2006 Addenda
- Upon return to Operating Reactor Licensing Basis (ORLB), Crane will begin the 5<sup>th</sup> ISI and 6<sup>th</sup> IST intervals per 10 CFR 50.55a(f)(4)(ii) and (g)(4)(ii)



# ISI and IST Program Restoration Timeline



- Interval extensions allowed by ASME Section XI IWA-2430(e) and ASME OM, ISTA-3120(e) from OM for plants “out of service continuously for 6 months or more”
- Crane plans to complete remaining inspections and tests required by each interval
- Start of new intervals (5<sup>th</sup> ISI, 6<sup>th</sup> IST) to coincide with return to ORLB
  - New CORs will be selected within 18 months of interval start dates to comply with 10 CFR 50.55a(f)(4)(ii) and (g)(4)(ii)

## Proposed Approach towards 10 CFR 50.55a at Crane

- CEG plans to comply with 10 CFR 50.55a at Crane as if it were an operating plant throughout the restart and plant restoration process
  - Communicated in CEG’s letter “Regulatory Path to Reauthorize Power Operations” (ADAMS Accession No. ML24310A104)
  - NRC IMC 2562 cites IP 71111.08, “Inservice Inspection Activities” as a recommended inspection document
    - As such, CEG considers it necessary to follow 10 CFR 50.55a to facilitate NRC inspector activities prior to restart
  - CEG expects it could be necessary to submit alternatives to codes and standards (i.e. relief requests) for NRC authorization per 10 CFR 50.55a(z) prior to restart
    - Other relief requests may be needed for Crane to support restoration activities, including revisions of existing relief requests to extend their authorized duration

# Discussion and Questions

