

# **License Amendment Request for CSCS-ECW Repairs at LaSalle County Station**

**NRC/Exelon Meeting, NRC Headquarters**

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**December 7, 2017**



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# Agenda

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- Introductions and Opening Remarks
- Objectives
- Need for Licensing Action
- Maintenance Details
- License Amendment Request Overview
- Regulatory Evaluation
- Summary
- Schedule

# Objectives

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- Present and discuss maintenance activities and need for License Amendment Request (LAR)
- Describe key aspects of the planned LAR
- Present proposed Technical Specification (TS) changes
- Discuss and receive feedback on the key aspects and proposed changes

# Need for Licensing Action

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- The planned LAR is to support plant maintenance which will improve equipment reliability.
- Proposed changes will allow installation of isolation valves and proactive CSCS-ECW piping maintenance without a dual unit shutdown.
- The maintenance replaces piping that has degraded due to long term wear and corrosion. The new isolation valves will also ensure future isolation capability.
- Four outages will be utilized to align divisional work for each unit, two divisions on each of the two units:
  - L2R17 (2019) – Division 2
  - L1R18 (2020) – Division 1
  - L2R18 (2021) – Division 1
  - L1R19 (2022) – Division 2

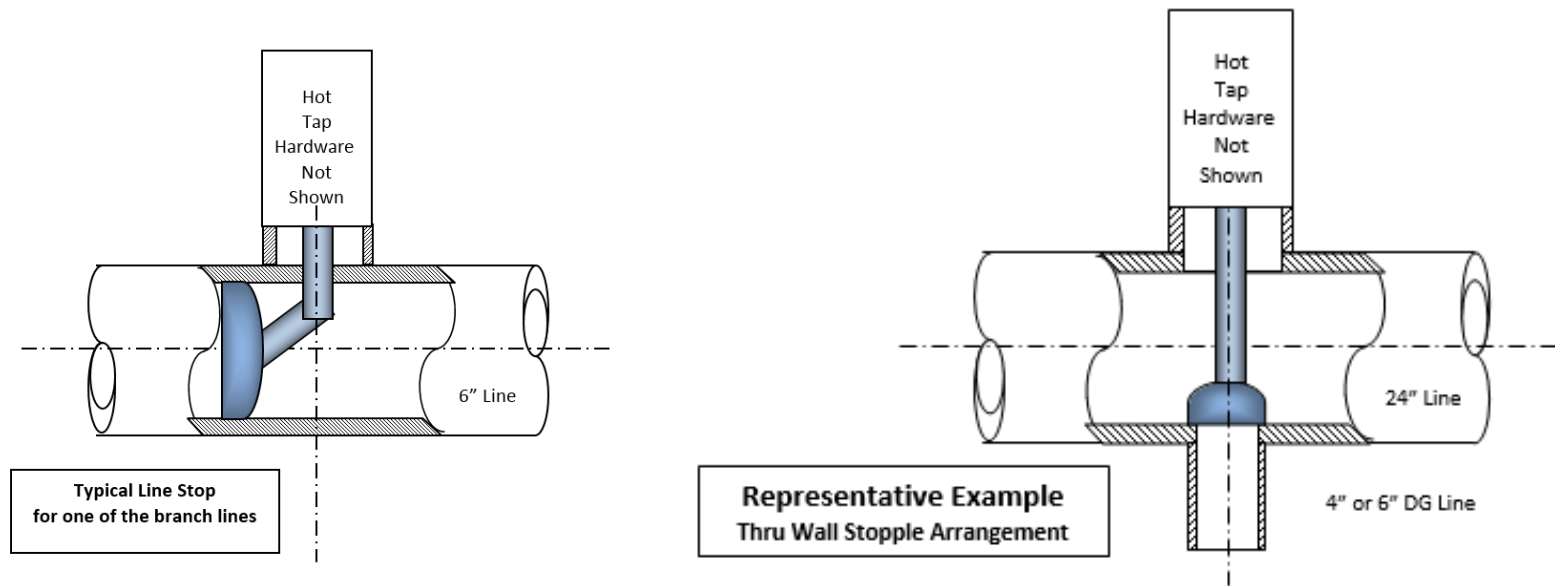
# Need for Licensing Action

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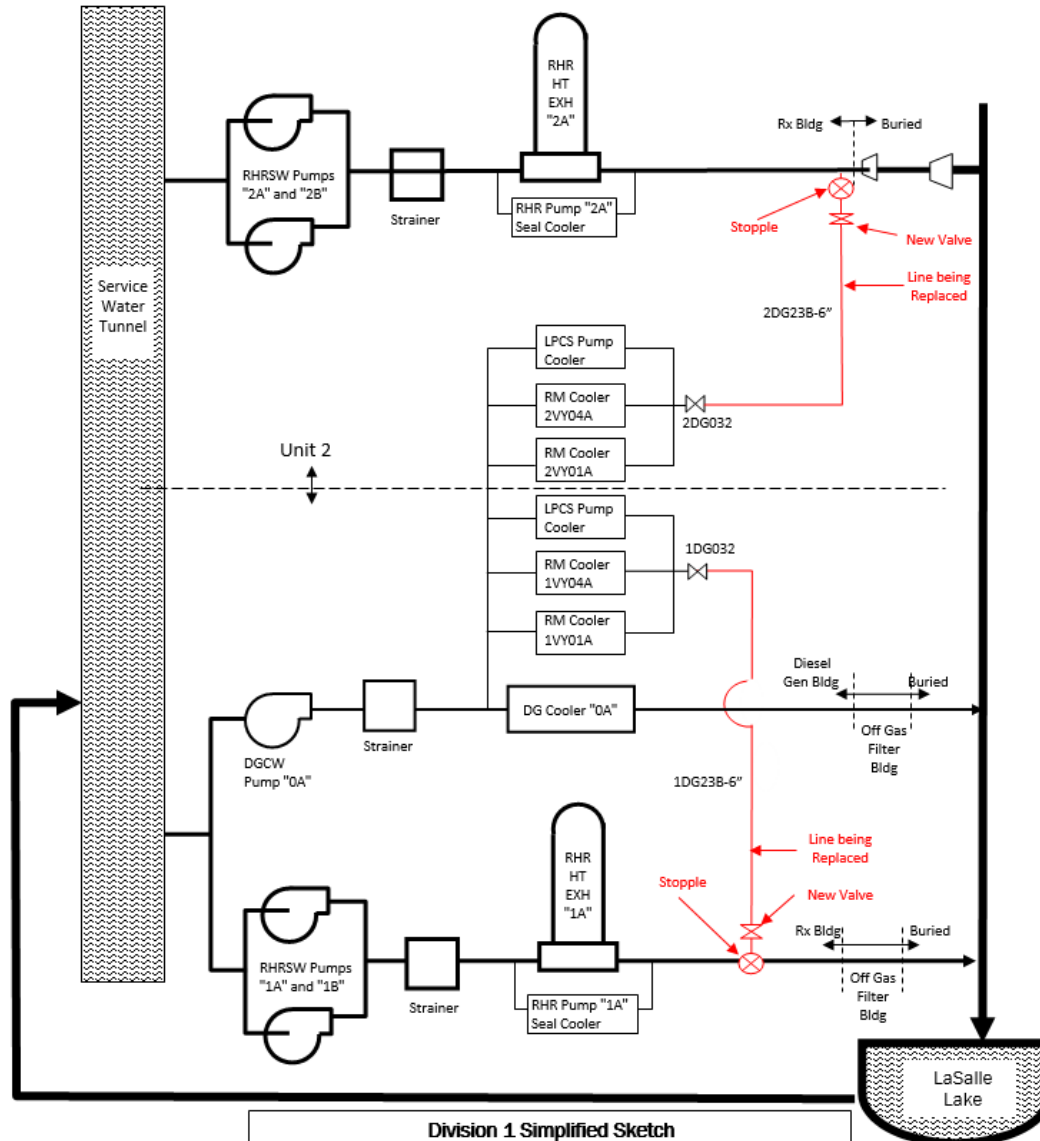
- The proposed CSCS-ECW maintenance replaces 4” and 6” DGCW piping and installs new isolation valves. The specific pipelines are 1DG06A-4”, 1DG23B-6”, 2DG06A-4” and 2DG23B-6”. Because the downstream side of the pipelines are not currently equipped with isolation valves, the lines will be isolated by hot tapping and installing line stops.
- CSCS-ECW is subject to the requirements of the ASME B&PV Code Section III. Because the line stops are non-Code the impacted CSCS-ECW subsystems will be declared inoperable.
- Even though inoperable, the impacted CSCS-ECW subsystems, will remain available with no impact on risk or design function (see slide 10).
- 7 days will allow sufficient time to install and test new isolation valves to provide ASME B&PV Code Section III isolation capability.

# Maintenance Details – Line Stop (Stoppole)

- Line Stop – nonconforming line-stop used to isolate branch lines and allow installation of isolation valves
- Will be designed to meet or satisfy system design requirements (e.g. pressure capacity and seismically mounted)



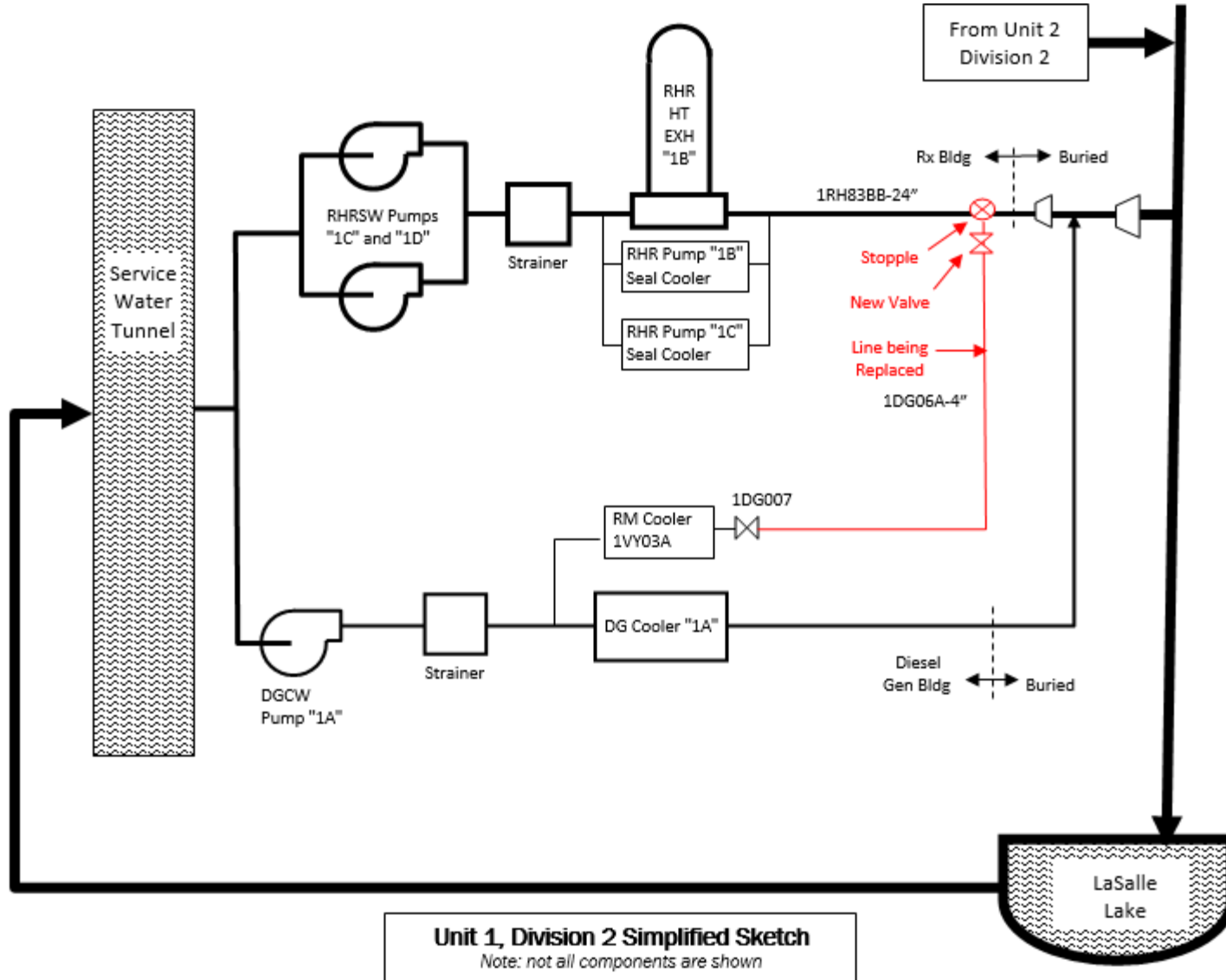
# Maintenance Details - Division 1



**Division 1 Simplified Sketch**

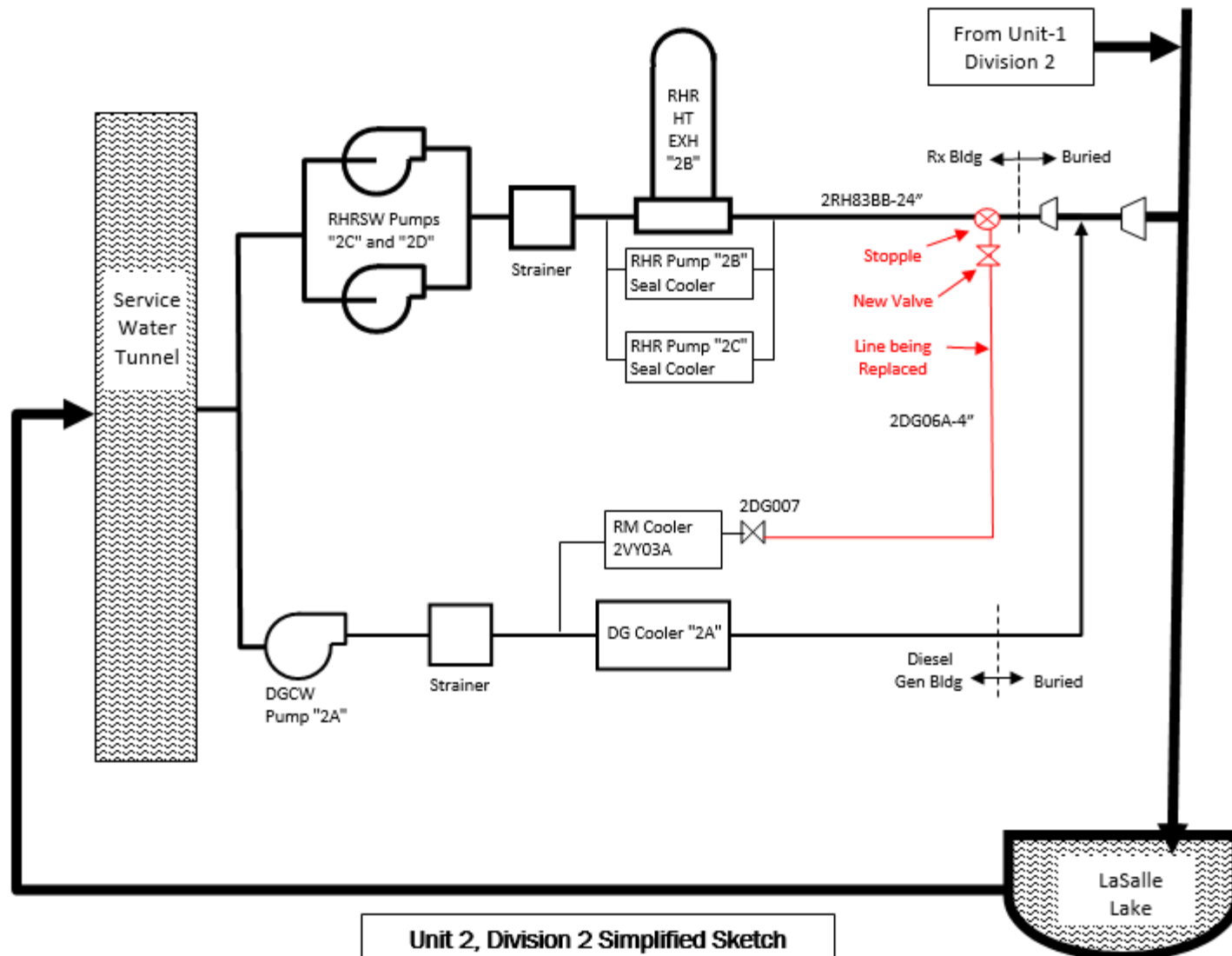
Notes  
 1) The Division 1 DGCW subsystem of CSCS-ECW is common to both Unit 1 & Unit 2  
 2) Not all components are shown

# Maintenance Details - Unit 1, Division 2





# Maintenance Details - Unit 2, Division 2



# Maintenance Details – DGCW Supported Systems

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- DGCW Division 1
  - Division 1 DG (Common ‘0’)
  - ECCS cubicle area coolers
  - LPCS pump motor cooler
- DGCW Division 2
  - Division 2 DGs (Unit 1 ‘1A’ and Unit 2 ‘2A’)
  - ECCS cubicle area cooler
- Redundant equipment and divisions will be protected in accordance with the LaSalle County Station risk management program

# License Amendment Request Overview

- Example: Unit 2, Division 2

Outage	Planned Work	Affected Subsystems*	System/Equipment Remaining
L2R17 2019	<p>Replace a 70 ft section of piping 2DG06A-4" between valve 2DG007 and line 2RH83BB-24".</p> <p>And</p> <p>Install new isolation valve in line 2DG06A-4" adjacent to line 2RH83BB-24".</p> <p>2DG06A-4" is part of the U-2, Div -2 DGCW subsystem</p>	<p>U-2, Div-2 DGCW Inoperable/available</p> <p>U-2, Div-2 DG 2A Inoperable/available</p> <p>U-2, Div-2 RHRSW Inoperable/available</p> <p>U-1, Div-2 DGCW Inoperable/available</p> <p>U-1, Div-2 DG 1A Inoperable/available</p> <p>U-1, Div-2 RHRSW Inoperable/available</p>	<p>U-2, Div-1 DGCW Operable</p> <p>U-2, Div-1 RHRSW Operable</p> <p>U-0, Div-1 DG 0A Operable</p> <p>U-1, Div-1 DGCW Operable</p> <p>U-1, Div-1 RHRSW Operable</p>

(\* Work is being performed on Unit 2, Division 2 DGCW subsystem; both units share a common Division 2 discharge line, therefore the work also affects the Unit 1, Division 2. Additional, supported systems are not included in this table.

# License Amendment Request Overview

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- Single submittal applicable to four outages:
  - L2R17 (2019) – Division 2
  - L1R18 (2020) – Division 1
  - L2R18 (2021) – Division 1
  - L1R19 (2022) – Division 2
- Proposed change to TS 3.7.2 Conditions to allow 7 days with DGCW subsystems inoperable but available
- Proposed change to TS 3.8.1 Conditions to allow 7 days with Division 2 Diesel Generators on both units inoperable but available

# License Amendment Request Overview

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- Proposed TS changes provided as handout
  - TS 3.7.2 Modified Condition A
  - TS 3.7.2 New Conditions B and C
  - TS 3.8.1 Modified Conditions C and F
  - TS 3.8.1 New Condition G
- Applicability is constrained to four upcoming outages
- During the maintenance period, additional TS Conditions may be entered, with no changes requested
- The Safety Function Determination Program (SFDP) will be applied as appropriate for supported systems with no Loss of Safety Function

# Regulatory Evaluation

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- Regulatory requirements:
  - 10 CFR 50.36 “Technical Specifications”
  - 10 CFR 50 Appendix A, General Design Criteria
- Licensing Basis
  - UFSAR Section 9.2.1 “CSCS Equipment Cooling Water”
- Precedent Amendments
  - LaSalle County Station 75/161, 180/167
  - Braidwood Station 30
  - Byron Station 136

# Summary

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- EGC is planning to submit a LAR to support plant maintenance which will improve equipment reliability.
- The LAR will propose changes which would revise TS 3.7.2 and 3.8.1 to allow 7 days with one or more DGCW trains inoperable and two Division 2 DGs inoperable, during four upcoming refueling outages
- Additional system inoperability will be evaluated using the Safety Function Determination Program and will follow existing TS LCOs
- Discussion and feedback is requested on the key aspects and proposed changes

# Schedule for Submittal

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- EGC plans to submit the license amendment request in January 2018



# Questions?

# Acronym Key

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- ASME B&PV Code – American Society of Mechanical Engineers Boiler and Pressure Vessel Code
- CFR – Code of Federal Regulations
- CSCS-ECW - Core Standby Cooling System – Equipment Cooling Water
- DG – Diesel Generator
- DGCW – Diesel Generator Cooling Water
- EGC – Exelon Generation Company
- LCO – Limiting Condition for Operation
- NRC – U.S. Nuclear Regulatory Commission
- RHR – Residual Heat Removal
- RHRSW – Residual Heat Removal Service Water
- TS – Technical Specification
- UFSAR – Updated Final Safety Analysis Report