UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 22, 2017

Mr. Bryan C. Hanson
Senior Vice President
Exelon Generation Company, LLC
President and Chief Nuclear Officer (CNO)
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2, RELIEF FROM THE REQUIREMENTS OF THE ASME CODE AND OM CODE RE: RELIEF REQUESTS G-01, RP-01 AND RP-04, PROPOSED ALTERNATIVES TO VARIOUS IST REQUIREMENTS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) CODE FOR OPERATION AND MAINTENANCE OF NUCLEAR POWER PLANTS (OM CODE) FOR THE FOURTH 10-YEAR INSERVICE TESTING INTERVAL (TAC NOS. MF8490, MF8491, MF8492, MF8493, MF8498, AND MF8499)

Dear Mr. Hanson:

By letter dated October 17, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16292A488), Exelon Generation Company, LLC (EGC, the licensee) submitted relief requests (RRs) to the U.S. Nuclear Regulatory Commission (NRC) for the use of alternatives to certain American Society of Mechanical Engineers Code (ASME) Code for Operation And Maintenance Of Nuclear Power Plants (OM Code) for the fourth 10-year inservice testing (IST) Interval at LaSalle County Station, Units 1 and 2 (LSCS).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(a)(z)(1) and 10 CFR50.55a(a)(z)(2), the licensee requested the following RRs to use proposed alternatives:

- RR G-01, Utilization of ASME Code Case OMN-20, "Inservice Test Frequency" - Proposed Alternative In Accordance with 10 CFR 50.55a(z)(2).
- RR RP-01, Water Leg Pump Flow Test - Proposed Alternative In Accordance with 10 CFR 50.55a(z)(2). Pursuant to 10 CFR 50.55a(z)(2), RR RP-01 requested to use the proposed alternative on the basis that complying with current ASME OM Code requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.
- RR RP-04, Utilization of ASME Code Case OMN-19, "Alternative Upper Limit for the Comprehensive Pump Test" - Proposed Alternative In Accordance with 10 CFR 50.55a(z)(1). Pursuant to 10 CFR 50.55a(z)(1), RR RP-04 requested to use the proposed alternative on the basis that the alternative provides an acceptable level of quality and safety.

By letter dated November 22, 2016, the licensee withdrew the RR G-01 (ADAMS Accession No. ML16327A186) because it is a duplicate of the request included in its application dated July 26,

2016 (ADAMS Accession No. ML16209A218), to adopt Technical Specification Task Force-545 and to utilize ASME Code Case OMN-20. Therefore, this transmittal does not address the RR G-01.

The NRC staff has reviewed the subject requests, and as set forth in the safety evaluation (SE), concludes that:

- The proposed alternative as described in RR RP-01 to the ASME Code testing requirements for the high-pressure core spray (HPCS), low-pressure core spray (LPCS), residual heat removal (RHR), and reactor core isolation coolant (RCIC) water leg pumps 1/2E22-C003, 1/2E21-C002, 1/2E12-C003, and 1/2E51-C003: (a) has provided for reasonable assurance of the operational readiness of the pumps, and (b) has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(2). Therefore, RR-RP-01 is authorized pursuant to 10 CFR 50.55a(z)(2), on the basis that complying with the specified ASME OM Code requirements results in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

- The proposed alternative described in RR RP-04: (a) has provided for acceptable level of quality and safety to the specific ASME OM Code requirements of ISTB-5123(e), ISTB-5223(e), and ISTB-5323(e) for all pumps listed in Table RP-04 and (b) subject to the condition described in the SE, has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(1). Therefore, subject to the condition described in the SE, RR-RP-04 is authorized pursuant to 10 CFR 50.55a(z)(1).

Therefore, the NRC staff authorizes the proposed alternatives in RRs RP-01 and RP-04 for the fourth 10-year IST interval at LSCS, Units 1 and 2, which is currently schedule to begin on October 12, 2017, and end on October 11, 2027.

All other ASME OM Code requirements for which relief was not specifically requested and approved in the subject requests for relief remain applicable.

Please contact the Project Manager, Bhalchandra K. Vaidya at (301)-415-3308, if you have any questions.

Sincerely,

Joel S. Wiebe, Acting Chief
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-373 and 50-374

Enclosure:
Safety Evaluation
cc w/encl: Distribution via Listserv

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELIEF REQUESTS RP-01 AND RP-04 FOR

ALTERNATIVE FOR

THE FOURTH 10-YEAR INSERVICE TESTING INTERVAL

OPERATING LICENSE NOS. NPF-21 AND NPF-18

LASALLE COUNTY STATION, UNITS 1 AND 2

EXELON GENERATION COMPANY, LLC

DOCKET NOS. 50-373 AND 50-374

CAC NOS. MF 8490, MF 8491, MF8492, MF8493, MF8498, AND MF8499

1.0 INTRODUCTION

By letter dated October 17, 2016 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML16292A488), Exelon Generation Company, LLC (EGC, or the licensee), submitted relief requests (RRs) G-01, RP-01 and RP-04 to the U.S. Nuclear Regulatory Commission (NRC), proposing alternatives to certain requirements of the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code), for the fourth 10-year inservice testing (IST) interval at LaSalle County Station (LSCS), Units 1 and 2, which will commence on October 12, 2017.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(a)(z)(1) and 10 CFR50.55a(a)(z)(2), the licensee requested the following RRs to use proposed alternatives:

- RR G-01, Utilization of ASME Code Case OMN-20, "Inservice Test Frequency" - Proposed Alternative In Accordance with 10 CFR 50.55a(z)(2).
- RR RP-01, Water Leg Pump Flow Test - Proposed Alternative In Accordance with 10 CFR 50.55a(z)(2). Pursuant to 10 CFR 50.55a(z)(2), RR RP-01 requested to use the proposed alternative on the basis that complying with current ASME OM Code requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.
- RR RP-04, Utilization of ASME Code Case OMN-19, "Alternative Upper Limit for the Comprehensive Pump Test" - Proposed Alternative In Accordance with 10 CFR 50.55a(z)(1). Pursuant to 10 CFR 50.55a(z)(1), RR RP-04 requested to use the proposed alternative on the basis that the alternative provides an acceptable level of quality and safety.

By letter dated November 22, 2016, the licensee withdrew the RR G-01 (ADAMS Accession No. ML16327A186) because it is a duplicate of the request included in its application dated July 26, 2016 (ADAMS Accession No. ML16209A218), to adopt Technical Specification Task Force-545 and to utilize ASME Code Case OMN-20. Therefore, this transmittal does not address the RR G-01.

2.0 REGULATORY EVALUATION

The regulations in 10 CFR 50.55a(f), "Inservice Testing Requirements," requires, in part, that the IST of certain ASME Code Class 1, 2, and 3 components must meet the requirements of the ASME OM Code and applicable addenda, except where alternatives have been authorized by the NRC pursuant to 10 CFR 50.55a(z)(1) or 10 CFR 50.55a(z)(2).

The regulations in 10 CFR 50.55a(z), state, in part, that alternatives to the requirements of 10 CFR 50.55a(f) may be authorized by the NRC if the licensee demonstrates that: (1) the proposed alternative provides an acceptable level of quality and safety (10 CFR 50.55a(z)(1)), or (2) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety (10 CFR 50.55a(z)(2)).

Based on the above, and subject to the following technical evaluation, the NRC staff finds that regulatory authority exists for the licensee to request and the NRC to authorize the alternative proposed by the licensee.

3.0 TECHNICAL EVALUATION

3.1 Licensee's Alternative Pump RR RP-01

The alternative RR RP-01 is an alternative test plan in lieu of certain IST requirements of the 2004 Edition through 2006 Addenda of the ASME OM Code for the IST program at LSCS, Units 1 and 2, for the fourth 10-year IST interval currently scheduled to start October 12, 2017, and end on October 11, 2027.

Applicable Code Requirements

ISTB-3000, General Testing Requirements, Table ISTB-3000-1, Inservice Test Parameter, specifies the parameters to be measured during inservice testing (i.e., Flow Rate, Q).

ISTB-5121, Group A Test Procedure, paragraph ISTB-5121(c) states that "Where it is not practical to vary system resistance, flow rate and pressure shall be determined and compared to their respective reference values."

Components for which Relief is Requested:

Table RR RP-01

Pump	Description	Class	Category	Unit 1
1E22-C003	High Pressure Core Spray (HPCS) Water Leg Pump	2	Group A	1
1E21-C002	Low Pressure Core Spray (LPCS) Water Leg Pump	2	Group A	1
1E12-C003	Residual Heat Removal (RHR) Water Leg Pump	2	Group A	1
1E51-C003	Reactor Core Isolation Cooling (RCIC) Water Leg Pump	2	Group A	1
2E22-C003	High Pressure Core Spray (HPCS) Water Leg Pump	2	Group A	2
2E21-C002	Low Pressure Core Spray (LPCS) Water Leg Pump	2	Group A	2
2E12-C003	Residual Heat Removal (RHR) Water Leg Pump	2	Group A	2
2E51-C003	Reactor Core Isolation Cooling (RCIC) Water Leg Pump	2	Group A	2

Licensee's Reason for Requesting Alternative:

The primary purpose of these pumps is to maintain the HPCS, LPCS, RCIC, and RHR pump discharge lines filled to limit the potential for water hammer upon associated pump initiation. Once the supported pump (e.g., HPCS, RHR, etc.) is in operation, the associated water leg pump serves no further safety-related function. The amount of flow delivered by each water leg pump is dependent upon each supported system's leakage rate. Each water leg pump is capable of delivering approximately 50 gallons per minute (gpm). None of the listed water leg pumps have instrumentation installed in their discharge lines for measuring flow rates.

While flow measurement instrumentation is provided downstream of the water leg pump's branch connection to its associated support system, during power operation the water leg pump is unable to generate sufficient pressure to flow through the associated flow element into the reactor vessel. Even if the water leg pump was capable of developing a head sufficient to inject into the reactor vessel during power operation, the flow measurement instrumentation, which is designed to measure flow developed by either a HPCS (0-8,000 gpm), LPCS (0-10,000 gpm), RHR (0-10,000 gpm), or RCIC (0-700 gpm) pump, is not capable of measuring such small flows developed by a water leg pump (i.e., approximately 50 gpm).

The application of temporary flow instrumentation (ultrasonic) cannot be utilized, as there does not exist a run of piping long enough that would allow for an accurate measurement. System modifications to provide test measuring locations places undue burden on the licensee without demonstrating any increase in the level of plant safety. These pumps are in continuous operation and pump performance is continuously monitored by a low-pressure alarm on each HPCS, LPCS, RHR, and RCIC pump header.

Licensee's Proposed Alternative Testing

The LSCS, Units 1 and 2, will continue to monitor the subject pumps for degradation by measuring and recording pump inlet pressure, discharge pressure (from which differential pressure is calculated), and vibration. The differential pressure and vibration data will be trended. These measurements are taken quarterly during normal plant operation, when the supported system's pump is not in operation and reactor coolant system pressure is greater than the water leg pump's discharge pressure. Measurement and trending of these parameters under these stated conditions will provide satisfactory indication of operational readiness as well as the ability to detect potential degradation. In addition, the main emergency core cooling system (ECCS) pump headers each have a low pressure sensor and alarm which continuously monitor the operability of the respective water leg pump. Station technical specification (TS) Surveillance Requirements (SRs) (i.e., TS 3.5.1.1, 3.5.2.3, and 3.5.3.1) also verify operability of the water leg pumps by verifying flow through a high point vent on a monthly basis.

Vibration measurement will continue to be obtained under normal operating conditions and evaluated in accordance with ISTB-5121(d) and ISTB-5121(e). The differential pressure across the pump will also continue to be determined quarterly through plant procedures utilizing each pump's minimum flow line in accordance with ISTB-5121(c) and ISTB-5121(e). Differential pressure and vibration will continue to be trended. In addition, LSCS, Units 1 and 2, verifies operability of these pumps through continuous monitoring of the HPCS, LPCS, RHR, and RCIC pump discharge line pressures that are monitored in the control room by alarm.

NRC Staff Evaluation

ISTB-5121 requires that each water leg pump be tested by establishing a fixed and repeatable hydraulic reference value of either differential pressure or pump flow, establishing the reference value during quarterly testing, and recording the measured hydraulic value and bearing vibration for comparison with the ASME Code acceptance criteria. The design of the HPCS, LPCS, RHR, and RCIC water leg pumps does not enable IST to be readily performed in accordance with the ASME Code. The necessary flow instrumentation is not installed in the systems. Temporary ultrasonic flow instrumentation cannot be used because there is not a run of piping long enough to allow for an accurate measurement. The licensee proposes to monitor the pumps for mechanical degradation with vibration monitoring, and for hydraulic degradation by measuring and recording pump inlet pressure and discharge pressure, and calculating differential pressure, and trending. Flow will be verified, but not measured, by verifying flow through a high point vent on a monthly basis.

The HPCS, LPCS, RHR, and RCIC waterleg pumps are continuously operating pumps. Their safety function is to keep their respective header piping in a filled condition to prevent water hammer upon start of the pump of the supported system(s). The actual output and hydraulic performance of the water leg pumps are not critical to the safety function, as long as the pumps are capable of maintaining the discharge header piping full of water.

Alarms would promptly alert plant operators whenever the water leg pumps do not maintain the piping pressure to a set alarm level. In addition, vibration data will be indicative of levels trending toward unacceptable values and should allow time for the licensee to take corrective actions before the pumps fail. The proposed alternative provides a reasonable assurance of operational readiness of the water leg pumps because: (1) differential pressure and bearing vibration are measured and trended, (2) LSCS TS SR 3.5.1.1, TS SR 3.5.2.3, and TS SR 3.5.3.1 require to verify operability of the water leg pumps by verifying the associated system is

sufficiently filled with water, and (3) alarms are present which provide a continuous monitoring of degradation in the pressure of the HPCS, LPCS, RHR, and RCIC pump discharge lines. The proposed alternative would therefore provide reasonable assurance of the operational readiness of HPCS, LPCS, RHR, and RCIC pumps 1/2E22-C003, 1/2E21-C002, 1/2E12-C003, and 1/2E51-C003.

3.2 Licensee's Alternative RR RP-04 for the Use of Code Case OMN-19

Applicable Code Edition and Addenda

The fourth 10-year interval of the LSCS, Units 1 and 2, IST program is based on the ASME OM Code Edition 2004 with Addenda through OM-2006. The fourth 10-year IST interval currently scheduled to start on October 12, 2017, and end on October 11, 2027.

Applicable Code requirements

ISTB-5123, "Comprehensive Test Procedure," (e) states, in part, that "All deviations from the reference values shall be compared with the ranges of Table ISTB-5121-1, "Centrifugal Pump Test Acceptance Criteria," and corrective action taken as specified in ISTB-6200."

ISTB-5223, "Comprehensive Test Procedure," (e) states, in part, that "All deviations from the reference values shall be compared with the ranges of Table ISTB-5221-1, "Vertical Line Shaft Centrifugal Pump Test Acceptance Criteria," and corrective action taken as specified in ISTB-6200."

ISTB-5323, "Comprehensive Test Procedure," (e) states, in part, that "All deviations from the reference values shall be compared with the ranges of Table ISTB-5321-2, "Reciprocating Positive Displacement Pumps," and corrective action taken as specified in ISTB-6200."

Table-5121-1, Table-5221-1, and Table-5321-1 specify a multiplier 1.03 times the reference value for measuring hydraulic value of discharge pressure or flow rate for the upper limits for "Acceptable Range" and "Required Action Range, High" criteria for comprehensive pump test (CPT).

ASME OM Code Case, OMN-19, "Alternative Upper Limit for the Comprehensive Pump Test," states, in part, that "a multiplier of 1.06 times the reference value may be used in lieu of the 1.03 multiplier for the comprehensive pump test's upper 'Acceptable Range' criteria and 'Required Action Range, High' criteria referenced in the ISTB test acceptance criteria tables."

In its submittal dated October 17, 2016, the licensee has requested an alternative to the comprehensive pump testing requirements of ISTB-5123(e), ISTB-5223(e), and ISTB-5323(e). The components affected by this alternative request are listed in Table RR RP-04-1, below.

Table RR RP-04-1							
Pump ID (Units 1 & 2)	**Pump Description**	**Pump Type**	**ASME Code Class**	**ASME OM Code Category**	**Design Basis Accident Flow Rate (gpm)**	**IST Comprehensive Pump Test Flow Rate (gpm)**	**Pump Periodic Verification (PPV) Test Required (Yes/No)**
0DGG01P	Diesel Generator (DG) Cooling Water Pumps	Centrifugal	3	Group A	1491	1775	No
1DGG01P	DG Cooling Water Pumps	Centrifugal	3	Group A	1052	1205	No
2DG01P	DG Cooling Water Pumps	Centrifugal	3	Group A	1052	1190	No
1FC03PA 1FC03Pb 2FC03PA 2FC03PB	Fuel Pool Emergency Make-Up Pumps	Centrifugal	3	Group B	300	300	No
1E22-C001	High Pressure Core Spray (HPCS) Pumps	Vertical Line Shaft Centrifugal	2	Group B	6250	6300	No
2E22-C001	HPCS Pumps	Vertical Line Shaft Centrifugal	2	Group B	6200	6200	No
1E22-C002 2E22-C002	HPCS DG Cooling Water Pumps	Centrifugal	3	Group A	993	1010	No
1E21-C001 2E21-C001	Low Pressure Core Spray Pumps	Vertical Line Shaft Centrifugal	2	Group B	6350	6350	No
1E12-002A 1E12-C002B 2E12-C002A 2E12-C002B	Residual Heat Removal (RHR) Pumps	Vertical Line Shaft Centrifugal	2	Group A	7200	7200	No
1E12-C002C 2E12-C002C	RHR (LPCI) Pumps	Vertical Line Shaft Centrifugal	2	Group B	7200	7200	No
1E12-C300A 1E12-C300B 1E12-C300C 1E12-C300D 2E12-C300A	RHR Service Water Pumps	Centrifugal	3	Group A	4185	4000	Yes

Table RR RP-04-1							
Pump ID (Units 1 & 2)	**Pump Description**	**Pump Type**	**ASME Code Class**	**ASME OM Code Category**	**Design Basis Accident Flow Rate (gpm)**	**IST Comprehensive Pump Test Flow Rate (gpm)**	**Pump Periodic Verification (PPV) Test Required (Yes/No)**
2E12-C300B 2E12-C300C 2E12-C300D							
1E51-C001 2E51-C001	Reactor Core Isolation Cooling Pumps	Centrifugal	2	Group B	600	600	No
1C41-C001A 1C41-C001B 2C41-C001A 2C41-C001B	Standby Liquid Control Pumps	Reciprocating Positive Displacement	2	Group B	41.2	≥ 41.2	No

Note 1: The IST component pump test flow rates provided in the Table RR RP-04-1 are the current test flow rates as of the time of submittal dated October 17, 2016.

Note 2: The IST measured value of 600 gpm for RCIC pumps is taken downstream of the unmeasured (~ 25 gpm) flow to the RCIC lube cooler. The design requirement of 600 gpm includes that unmeasured value. Therefore, the test confirms that the 600 gpm that is the measured flow to the reactor is the maximum required flow after the pump has also provided the additional flow (~ 25 gpm) to the RCIC lube oil cooler. No additional pump periodic verification (PPV) test is required for the RCIC pumps.

Licensee's Reason for Request

Occasionally, LSCS has had some difficulty with implementing the high required action range limit of 1.03 above the established hydraulic parameter reference value due to normal data scatter. This could result in the plant entering, or remaining in as applicable, TS limiting condition for operation (LCO) for reasons other than a pump degradation issue.

Based on the similar difficulties experienced by other Owners, ASME OM Code Case OMN-19, "Alternative Upper Limit for the Comprehensive Pump Test," was developed and has been published in the 2011 Addenda of the ASME OM Code. The white paper for this code case, Standards Committee Ballot 09-610, Record 09-657, discussed the impact of instrument inaccuracies, human factors involved with setting and measuring test parameters, readability of gauges and other miscellaneous factors on the ability to meet the 1.03 percent acceptance criteria. Industry operating experience is also discussed in the white paper.

Code Case OMN-19 has not yet been approved for use in Regulatory Guide (RG) 1.192, Revision 1, "Operations and Maintenance Code Case Acceptability, ASME OM Code" [October 2014 (ADAMS Accession No. ML13340A034)].

Licensee's Proposed Alternative

The licensee proposes to use ASME OM Code Case OMN-19 as published in the 2011 Addenda of the ASME OM Code for the fourth 10-year interval IST program. The ASME OMN-19 Code Case allows for the use of a multiplier of 1.06 times the reference value in lieu of the 1.03 multiplier for the comprehensive pump test's upper "Acceptable Range" criteria and "Required Action Range, High" criteria referenced in the applicable ISTB test acceptance criteria tables ISTB-5121-1, ISTB-5221-1, and ISTB-5321-2.

Instrument inaccuracies and human factors involved with setting and measuring flow, pressure, and speed may cause the measured value to exceed the existing code allowed comprehensive pump test's upper "Acceptable Range" criteria and the "Required Action Range, High" criteria of 1.03 multiplier. The new upper limit of 1.06 multiplier in lieu of the 1.03 multiplier, as approved in Code Case OMN-19, will eliminate declaring the pump inoperable and entering an unplanned TS LCO or will eliminate the extension of an existing LCO.

As a condition for using OMN-19, LSCS will implement a pump PPV test program to verify that a pump can meet the required differential (or discharge) pressure, as applicable, at its highest design basis accident flow rate, as discussed in Mandatory Appendix V, which was published in the 2012 Edition of the ASME OM Code. LSCS will not be required to perform a PPV test if the design basis accident flow rate in the licensee's safety analysis is bounded by the comprehensive pump test or Group A test [flow rate]. Also, if a pump does not have a design basis accident flow rate, then a PPV test is not required. Therefore, any pump that is utilizing the 1.06 multiplier for the comprehensive pump test, [PPV test], if applicable, will also be required.

NRC Staff Evaluation

The ASME Committee on OM developed ASME OM Code Case OMN-19 and published it in the 2011 Addenda of the ASME OM Code. OMN-19 allows the use of a multiplier of 1.06 times the reference value in lieu of the 1.03 multiplier for the comprehensive pump test's upper "Acceptable Range" criteria and "Required Action Range, High" criteria referenced in Table ISTB-5121-1, Table ISTB-5221-1, and Table-5321-1.

ASME OM Code Case OMN-19 has not been added to RG 1.192, and the 2011 Addenda of the ASME OM Code has not been incorporated by reference into 10 CFR 50.55a, Codes and standards." The NRC staff has reviewed OMN-19, and currently has no concerns with its use, provided that a condition is met. The NRC staff has determined that licensees choosing to implement OMN-19 must implement a PPV test program to verify that a pump can meet the required differential (or discharge) pressure as applicable, at its highest design-basis accident flow rate, as discussed in Mandatory Appendix V, which was published in the 2012 Edition of the ASME OM Code.

The NRC staff notes that the licensee is not required to perform a PPV test if the design-basis accident flow rate in the licensee's safety analysis is bounded by the comprehensive pump test flow rate or the Group A test flow rate. The licensee has indicated (see Table RR RP-04-1, above) that the design-basis accident flow rate for RHR service water pumps 1/2E12-C300A/B/C/D is not bounded by the comprehensive pump test flow rate. Furthermore, the licensee states that a PPV test is required and will be performed for these pumps consistent with ASME OM Code, Mandatory Appendix V, requirements.

4.0 CONCLUSION

As set forth above, the NRC staff concludes that the licensee's proposed alternative as described in RR RP-01 to the Code testing requirements for the HPCS, LPCS, RHR, and RCIC water leg pumps 1/2E22-C003, 1/2E21-C002, 1/2E12-C003, and 1/2E51-C003 is authorized pursuant to 10 CFR 50.55a(z)(2), on the basis that complying with the specified ASME OM Code requirements results in hardship or unusual difficulty without a compensating increase in the level of quality and safety. The licensee's proposed alternative provides reasonable assurance of the operational readiness of the pumps.
As set forth above, the NRC staff finds that the proposed alternative described in request RR RP-04 provides an acceptable level of quality and safety to the specific ASME OM Code requirements of ISTB-5123(e), ISTB-5223(e), and ISTB-5323(e) for all pumps listed in Table RR RP-04. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(1).

All other ASME OM Code requirements for which relief was not specifically requested and approved in the subject requests for relief remain applicable.

Therefore, the NRC staff authorizes the proposed alternatives in RRs RP-01 and RP-04 for the fourth 10-year IST interval at LSCS, Units 1 and 2, which is currently scheduled to begin on October 12, 2017, and end on October 11, 2027.

Principal Contributor: G. Bedi, NRR/EPNB

Date of issuance: February 22, 2017

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2, RELIEF FROM THE REQUIREMENTS OF THE ASME CODE AND OM CODE RE: RELIEF REQUESTS G-01, RP-01 AND RP-04, PROPOSED ALTERNATIVES TO VARIOUS IST REQUIREMENTS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) CODE FOR OPERATION AND MAINTENANCE OF NUCLEAR POWER PLANTS (OM CODE) FOR THE FOURTH 10-YEAR INSERVICE TESTING INTERVAL (TAC NOS. MF8490, MF8491, MF8492, MF8493, MF8498, AND MF8499) DATED FEBRUARY 22, 2017

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G. Bedi, NRR/EPNB

ADAMS Package Accession No.: ML17024A265

(*) No Substantial change from SE Input Memorandum

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