Joseph H. Plona
Site Vice President

6400 N. Dixie Highway, Newport, MI 48166
Tel: 734.586.5910 Fax: 734.586.4172

DTE Energy

GL 2008-01

July 29, 2009
NRC-09-0045

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington D C 20555-0001

References: 1. Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43

2. NRC Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," dated January 11, 2008

3. Detroit Edison Letter to NRC, "Three-Month Response to NRC Generic Letter 2008-01," NRC-08-0032, dated April 11, 2008

4. NRC Letter to Detroit Edison, "Fermi 2-Re: Generic Letter 2008-01, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems, Proposed Alternative Course of Action (TAC No. MD7827)" dated September 19, 2008

5. Detroit Edison Letter to NRC, "Fermi 2 Nine-Month Response to NRC Generic Letter 2008-01, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," NRC-08-0064, dated October 14, 2008

Subject: Supplement to Fermi 2 Nine-Month Response to NRC Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems"

A134
NRR

The Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2008-01 (Reference 2) to request that each licensee evaluate the licensing basis, design, testing, and corrective action programs for the Emergency Core Cooling Systems (ECCS), Decay Heat Removal (DHR) systems, and Containment Spray systems, to ensure that gas accumulation is maintained less than the amount that challenges operability of these systems, and that appropriate action is taken when conditions adverse to quality are identified.

GL 2008-01 requested each licensee to submit a written response in accordance with 10 CFR 50.54(f) within nine months of the date of the GL to provide the information summarized below:

(a) A description of the results of evaluations that were performed pursuant to the requested actions. The description should provide sufficient information to demonstrate present or future compliance with the quality assurance criteria in Sections III, V, XI, XVI, and XVII of Appendix B to 10 CFR Part 50 and the licensing basis and operating license as those requirements apply to the subject systems.

(b) A description of all corrective actions, including plant, programmatic, procedure, and licensing basis modifications that were determined to be necessary to assure compliance with these regulations; and,

(c) A statement regarding which corrective actions were completed, the schedule for completing the remaining corrective actions, and the basis for that schedule.

Detroit Edison submitted a 3-month response (Reference 3) to GL 2008-01 with a proposed alternative course of action for Fermi 2. The response stated that Fermi 2 could not meet the requested nine month schedule for submitting the requested information because walkdowns of certain sections of the subject system piping cannot be completed during power operation. These sections of piping are inaccessible for the following reasons: (1) location inside the primary containment; (2) location in high radiation areas; (3) need to remove insulation from piping; or (4) the need to erect scaffolding. In Reference 4, NRC determined that the proposed alternative course of action was acceptable. Reference 5 provided Detroit Edison's nine-month response to GL 2008-01 in accordance with References 3 and 4.

Detroit Edison has completed its assessment of those remaining portions or functions of the systems identified in Reference 5. This letter provides the supplemental information to the nine-month response provided in Reference 5.

In summary, Detroit Edison has concluded that the subject systems at Fermi 2 are operable and that Fermi 2 is currently in compliance with the licensing basis documentation and applicable regulations, including 10 CFR 50 Appendix B,

Criteria III, V, XI, XVI, and XVII, with respect to the concerns outlined in GL 2008-01 regarding managing gas accumulation in these systems or functions.

This letter fulfils the commitment made in Reference 5 to complete the assessment and provide a supplemental response within 90 days from startup of the thirteenth refuel outage which occurred on May 1, 2009.

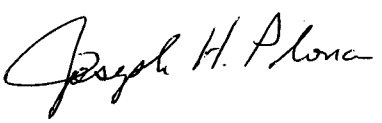
As discussed in Reference 5, Technical Specifications (TS) improvements are being addressed by the TS Task Force (TSTF) to provide an approved TSTF Traveler for making changes to standard TS related to the potential for unacceptable gas accumulation. Detroit Edison is continuing to support and monitor the industry and NEI Gas Accumulation Management Team activities in the development of potential generic TS changes via the TSTF Traveler process and subsequent NRC review and approval in accordance with the Consolidated Line Item Improvement Process (CLIIP).

The following commitment made in Reference 5 remains open:

> Detroit Edison will evaluate the applicability and the need to submit a license amendment request for adopting the pertinent CLIIP at Fermi 2 within 60 days of the issuance of the Notice of Availability in the Federal Register.

Should you have any questions regarding this submittal, please contact Mr. Rodney W. Johnson, Manager, Nuclear Licensing at (734) 586-5076.

Sincerely,



Enclosure

cc: NRC Project Manager
NRC Resident Office
Reactor Projects Chief, Branch 4, Region III
Regional Administrator, Region III
Supervisor, Electric Operators,
Michigan Public Service Commission

I, Joseph H. Plona, do hereby affirm that the foregoing statements are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.

Joseph H. Plona
Site Vice President, Nuclear Generation

On this 29 day of July, 2009 before me personally appeared Joseph H. Plona, being first duly sworn and says that he executed the foregoing as his free act and deed.

Sharon A. Marshall
Notary Public

SHARON S. MARSHALL
NOTARY PUBLIC, STATE OF MI
COUNTY OF MONROE
MY COMMISSION EXPIRES Jun 14, 2013
ACTING IN COUNTY OF Monroe

Enclosure to
NRC-09-0045

Supplement to Fermi 2 Nine-Month Response to NRC Generic Letter 2008-01

Table of Contents

A. INTRODUCTION

This Enclosure contains supplemental information to that provided in Detroit Edison's nine-month response for Fermi 2 to NRC Generic Letter (GL) 2008-01 "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," dated January 11, 2008.

B. EVALUATION RESULTS

I. Licensing Basis Evaluation

1. Review Summary

   All information was provided in Reference 5.

2. Changes to Licensing Basis Documents

   Detroit Edison continues to track progress on Technical Specification (TS) improvements being addressed by the Technical Specification Task Force (TSTF) on industry initiatives for managing gas accumulation in ECCS, Decay Heat Removal, and Containment Spray Systems. The TSTF and Consolidated Line Item Improvement Program (CLIIP) have not yet been issued. Detroit Edison will evaluate the applicability and the need to submit a license amendment request for adopting the pertinent CLIIP at Fermi 2 within 60 days of the issuance of the Notice of Availability in the Federal Register.

   A change to Updated Final Safety Analysis Report (UFSAR) Section 5.5.7.3.3 "Containment Cooling Subsystem" has been approved to clarify the intent of the wording regarding the containment spray lines being maintained full of water. This change will be included in the next 10 CFR 50.71(e) UFSAR update.

   A change to UFSAR Section 3.9.1.2.b.3 "Dynamic Testing Procedures" has been approved to correct inconsistencies between sections of the UFSAR regarding the discussion of keepfill for the Residual Heat Removal (RHR) and High Pressure Coolant Injection (HPCI) systems. This change will be included in the next 10 CFR 50.71(e) UFSAR update.

3. Conclusion

   The conclusion from the licensing basis evaluation was provided in Reference 5.

II. Design Evaluation

1. Review of the Design Basis Documents

   All information was provided in Reference 5.

2. Gas Volume Acceptance Criteria

The following describe industry efforts performed to address GL 2008-01 and Detroit Edison's evaluation and utilization of these efforts.

2.1 Pump Suction Piping

The allowable suction-side gas volume described in Reference 5 was based on technical guidance provided by the Boiling Water Reactor Owners Group (BWROG). The guidance indicated that suction gas voids are not expected to occur; however, if a gas void was found in a suction line, it would be expected to be a fixed finite volume. Industry guidance recommends that an average void fraction less than 10% can be tolerated for a period no greater than 5 seconds. In response to the NRC criteria for suction-side gas void acceptance criteria, the industry Gas Accumulation Management Team (GAT) updated the technical guidance for determining suction-side gas void acceptance criteria. This updated guidance is identical to the previous guidance when the pump is operated within 70-120% of its Best Efficiency Point (BEP). When the pump is operated outside this range, the acceptance criteria is reduced to an average void fraction of 5% for a period no greater than 5 seconds.

Using the updated guidance provided by the GAT (Nuclear Energy Institute (NEI) letter to NRC from James H. Riley to William H. Ruland dated June 18, 2009), an allowable gas void size was calculated for each ECCS suction line. A review performed for each ECCS pump suction line determined that operating each pump with the maximum potential (not actual) air void size in the ECCS suction piping will not prevent the pump from performing its design function.

2.2 Pump Discharge Piping

Acceptance criterion was provided in Reference 5.

2.3 Downstream ECCS Piping Analysis

Acceptance criterion was provided in Reference 5.

2.4 Effects of Reactor Coolant System Gas Ingestion

All information was provided in Reference 5.

3. Drawing Review

3.1 General

All information was provided in Reference 5.

3.2 Scope

All information was provided in Reference 5.

3.3 Identification of the High Points

All information was provided in Reference 5.

3.4 Results

All information was provided in Reference 5.

3.5 New or Modified Vent Valve Locations from Drawing Review

Drawing reviews identified that a vent on a 22-foot horizontal pipe section of the Division 1 Core Spray (CS) piping was not located at the pipe high point. A modification was installed to relocate the Division 1 Core Spray vent to its high point to eliminate potential gas pocketing. Similarly, the corresponding Division 2 Core Spray vent was also relocated to its high point.

4. System Confirmation Walkdowns

4.1 Description of Walkdowns

Although plans originally called for performing all remaining walkdowns in the thirteenth refueling outage (RF13), it was later determined based on additional evaluations that certain sections could be performed at power. Technical evaluations were performed to allow pipe insulation to be altered with the plant at power in order to measure slopes and perform ultrasonic testing (UT) examinations. Performance of UT prior to the outage provided baseline data to which post maintenance data after the outage could be compared.

In addition to the methods discussed in Reference 5, the following methods were also used during walkdowns performed subsequent to that submittal.

4.1.1 Laser Scanning

Laser scanning was employed to evaluate RHR and Containment Spray piping in the torus room. Use of this technique avoided a significant amount of radiological dose that would have been received from erecting scaffolding and performing the walkdowns.

Laser scans of the piping were performed and the results of the scans were compared to the building horizontal plane to determine the slope of the piping sections scanned. The building's horizontal plane was determined

from scans of surveyors points (elevation benchmarks) imbedded in the concrete walls of the room. Establishment of this plane ensures good registration of the scans to the plant coordinate system.

4.1.2 Slope Determination Tool

A method to determine the slope of piping without removal of metal jacketing or insulation was identified based upon benchmarking of other plants responding to the Generic Letter. A slope determination tool was fabricated to allow use of the digital levels on jacketed and insulated piping. The tool consists of two 3/16 inch diameter awls on three foot centers connected to a piece of aluminum angle. The awls penetrate the metal jacket and insulation until they contact the pipe beneath the insulation. Once in contact with the piping, the slope of the horizontal run can be determined using the digital level by placing it on the aluminum angle. The device was tested on insulated piping mockups prior to use in the field and was found to be acceptable. It was used at locations where the condition of the metal jacketing or insulation would prohibit acquiring an accurate slope measurement.

4.1.3 Ultrasonic Testing

Fifteen susceptible locations were identified and subsequently UT examined. The results of these examinations are discussed in Section 4.3.3.

4.2 Results of Walkdowns Performed Prior to the Nine Month Submittal

Results from walkdowns performed prior to the nine month submittal were provided in Reference 5.

4.3 Results of Walkdowns and Testing Performed Since the Nine Month Submittal

4.3.1 Walkdown (Slope) and Laser Scan Results Outside the Drywell

As previously stated in Reference 5, credit was taken for dynamic venting during surveillance runs. Therefore, walkdowns included piping sections that are not flushed and filled by the surveillance runs (See Table 1). After reviewing the walkdown information, it was concluded that all pipe sections are sloped favorably with a few exceptions. These exceptions are discussed below:

Slope measurements performed on a section of the Core Spray Division 1 injection line (at elevation 628 feet shown on isometric drawing M-3144-2) identified a slight unfavorable slope and a potential high point at the

wall penetration. Therefore, this section of pipe was ultrasonically tested on both sides of the wall penetration. UT results found no voids.

Slope measurements performed on a section of the Core Spray Division 1 injection line (at elevation 601feet shown on isometric drawing M-3144-2) identified a slight unfavorable slope on a horizontal pipe section behind orifice D002A. Therefore, this section of pipe was ultrasonically tested and as a result, no air was identified. Although the slope measurement for the corresponding Division 2 section of Core Spray piping (isometric drawing M-3147-2) found a favorable slope, this section of pipe was also ultrasonically tested because of the potential to trap air behind an orifice. The UT results found no air in this section.

Based on previous drawing review, certain locations of the RHR piping were identified as susceptible for trapping air. These suspect locations were ultrasonically tested. The UT results found no voids in these suspect locations. Laser-scan measurements were later taken on various horizontal sections of RHR piping located inside the torus room. Portions of this piping were found to be sloped in a slightly unfavorable direction. Potential air pocket volumes were quantified and evaluated. The evaluation concluded that the laser-scan results do not challenge operability of the RHR system.

Table 1 in this letter provides the updated slope information for the pipe sections identified in Table 1 of Reference 5.

No new vents or corrective actions were required as a result of the walkdown or laser-scan effort.

4.3.2 Drywell and Steam Tunnel Walkdown Criteria and Results

The Low Pressure Coolant Injection (LPCI), Residual Heat Removal (RHR) Shutdown Cooling (SDC), and Core Spray System piping located in the drywell were walked down to verify piping installation in accordance with the isometric drawings including installation and location of vents on the lines. No discrepancies were identified.

BWROG Report BWROG-TP-08-020, "Effects of Voiding in ECCS Drywell Injection Piping" demonstrates that, except for HPCI, any voids for the sections of piping downstream of the first normally closed motor operated isolation valve will not create a water hammer that could challenge the operability of those systems when required to mitigate any postulated events. Therefore, slope measurement of horizontal piping sections inside the drywell was not required.

The BWROG report also states that given the variety in plant piping configurations for High Pressure Coolant Injection Systems, the uniqueness of the turbine driven pump, and operating experience, no generic definitive statement could be made to exclude the HPCI injection piping from a plant specific evaluation. Therefore, the HPCI System discharge piping in the steam tunnel was walked down and slope measurements taken. All of the horizontal runs in the discharge piping were found to have a favorable slope and no new vents were required to be installed.

Since portions of the Containment Spray systems (located inside the primary containment) are designed to be empty while in standby, no effort was made to verify the piping's actual configuration.

4.3.3 Result of UT Examinations

Of the 15 locations that were ultrasonically tested, one location upstream of Division I Core Spray Inboard Isolation Valve E2150F005A was expected to have a void based on previous drawing review. The results of the UT examinations confirmed that voids existed upstream of valve E2150F005A and upstream of Division 2 Core Spray Inboard Isolation Valve E2150F005B. These voids were smaller than previously evaluated for these locations and did not affect system operability. The UT results at the remainder of the susceptible locations showed that the piping systems were full. Two modifications to relocate the high point vent tap locations upstream of E2150F005A and E2150F005B were completed during RF13.

Prior to plant restart, confirmatory UT examinations were performed at six locations selected as representative of the piping configurations of the 15 susceptible locations. These examinations reflected the condition of the piping after maintenance and performance of post maintenance fill and vent procedures. No voids were identified at these 6 locations. Based upon similarity of piping configuration, and comparison to the as-found condition for those locations, it was concluded that confirmatory UT examinations were not required at the remaining locations.

4.4 New or Modified Vent Valve Locations from Walkdowns

The high point vent taps located upstream of E2150F005A, Division 1 Core Spray Inboard Isolation Valve and E2150F005B, Division 2 Core Spray Inboard Isolation Valve were modified during RF13. In both cases the existing high point vent taps were located below the high point of the system piping, allowing a void to exist upstream of the valves. The taps were relocated to the high point of the piping systems. No other modifications were required to modify existing vent valves or to install new vent valves.

5. Procedure Review

5.1 Fill and Vent Procedure Review

All information was provided in Reference 5.

5.2 Revisions to Fill and Vent Procedures

Several procedure enhancements were identified as a result of the review. The status of those enhancements are discussed below, and the schedule for corrective action completion provided in the summary under Section C of this Enclosure is updated, accordingly:

Core Spray System Operating Procedure (SOP) 23.203 Revision 44 was issued to include a requirement to vent the discharge headers via valves E2100F013A(B) and E2100F014A(B) prior to closure of E2150F005A(B).

High Pressure Coolant Injection SOP 23.202 Revision 95 was issued to include a requirement to vent the suction line at valves E4100F037 and E4100F038 and the discharge line at valves E4100F156 and E4100F157. Precaution and Limitation step number 3.19 was also revised to address performing a high point vent when returning suction to the Condensate Storage Tank (CST) from the suppression pool, or when keep fill is restored.

Residual Heat Removal (RHR) SOP 23.205 Revision 101 was issued to add provisions to open valves E1150F611A and E1150F611B during venting of the Low Pressure Coolant Injection (LPCI) injection piping and valve E1150F608 during venting of the Shutdown Cooling supply piping.

RHR SOP 23.205 Revision 102 was issued to add a new Precaution and Limitation (Step 3.2.15) to consult with the Technical Support Center (TSC) if the reactor building is inaccessible to perform Shutdown Cooling (SDC) fill and vents.

Core Spray Alarm Response Procedure (ARP) 2D90 Revision 9 was issued to perform fill and vent of Core Spray system on loss of keep fill pressure.

5.3 Review of RHR Manual Operation Procedure

All information was provided in Reference 5.

6. Potential Gas Intrusion Mechanisms

All information was provided in Reference 5.

7. Changes to the Design Basis Documents

The only changes made to Design Basis Documents are those required to reflect the modifications associated with the Division 1 and Division 2 Core Spray high point vent relocation discussed in Section II.4.4.

III. Testing Evaluation

1. Surveillance Procedure Review

All information was provided in Reference 5.

2. Surveillance Procedure Revision

As discussed in Reference 5, a recommendation was provided in Condition Assessment Resolution Document (CARD) 08-26419 to revise the Core Spray, HPCI, and RHR surveillance procedures to include venting and post-venting actions such as recording observations and/or gas volumes. This recommendation was made before any plans for performing UT examination were formalized. This recommendation was not adopted and CARD 08-26419 was later closed based on the evaluation of monthly fill and vent surveillance results which showed that no voids had been identified in these systems in the past years.

After further evaluation of the results of UT examinations performed in support of GL 2008-01 evaluation and benchmarking other plants, it is now planned to continue to perform UT examinations of susceptible locations to confirm a successful fill and vent, whenever they are drained for maintenance (CARD 09-25230).

IV. Corrective Action Program Evaluation

All information was provided in Reference 5.

V. Conclusion of All Evaluations

Detroit Edison has concluded that the subject systems at Fermi 2 are operable and that Fermi 2 is currently in compliance with the licensing basis documentation and applicable regulations, including 10 CFR 50 Appendix B, Criteria III, V, XI, XVI, and XVII, with respect to the concerns outlined in GL 2008-01 regarding managing gas accumulation in these systems or functions.

C. SUMMARY OF CORRECTIVE ACTIONS AND SCHEDULE

The table below provides a summary of corrective action documents generated as a result of the evaluation performed for GL 2008-01. No corrective actions were identified as necessary to address the GL; however, many enhancements to procedures and processes have been identified as described below in addition to the status or schedule for action completion and the basis for the schedule.

CARD	Description	Status / Schedule	Update
Licensing Document Review			
08-26380	Evaluate need for TS change based on industry TSTF being developed and NRC approval of a CLIIP	Within 60 days from issuance of CLIIP Notice of Availability	Pending CLIIP availability
08-26381	Evaluate statement in UFSAR Section 5.5.7.3.3 regarding containment spray lines being filled solid up to the outermost containment isolation valves.	Change will be processed with the next 10 CFR 50.71e required update, expected in October 2009	UFSAR Change approved. Next UFSAR Update due by 11/2/2009
08-26690	Revise UFSAR Section 3.9.1.2.b.3 to reflect current configuration for RHR and HPCI systems.	Change will be processed with the next 10 CFR 50.71e required update, expected in October 2009	UFSAR Change approved. Next UFSAR Update due by 11/2/2009
Design (Drawing) Review			
08-20407 Action Item 42	Evaluate the need to relocate a vent near a 22 ft horizontal pipe section of Div 1 Core Spray injection piping.	Walkdown during RF13 and relocate vent, as necessary	Complete. Vent relocated to high point
Procedures Review			
08-26406	Evaluate recommendation to revise core spray procedure 23.203 to add a step to vent the drywell penetration at valves F013/F014 before valve F005 is closed.	Complete procedure revision, as necessary, by July 15, 2009	Complete. Procedure 23.203 Rev 44 adds the steps for each division of CS

CARD	Description	Status / Schedule	Update
08-26407	Evaluate recommendation to revise HPCI procedure 23.202 to vent the suction high point at valves F037/F038. Also, the last pump discharge header vent should consider including another vent at valves F156/F157. Evaluate recommendation to add a step to perform a high point vent when swapping the suction back to CST from the suppression pool if the system was in standby without the keepfill system in operation for more than an hour.	Complete procedure revision, as necessary, by July 15, 2009	Complete. Procedure 23.202 Rev 95 revised fill & vent section as discussed. Precaution 3.19 revised to address high point vent when suction returned to CST or keep fill restored
08-26410	Evaluate recommendation to revise RHR procedure 23.205 to direct operator actions in the event that SDC supply piping is inaccessible for filling and venting.	Complete procedure revision, as necessary, by July 15, 2009	Complete. Procedure 23.205 Rev 102 added precaution
08-26413	Evaluate recommendation to revise RHR procedure 23.205 to open F611 during venting of the LPCI injection piping. Also, consider opening valve F608 during venting of the SDC supply piping.	Complete procedure revision, as necessary, by July 15, 2009	Complete. Procedure 23.305 Rev 101 revised fill & vent section as discussed
08-26417	Evaluate recommendation to revise Core Spray, HPCI, and RHR procedures to require high point venting upon restoration after loss of keep fill pressure to avoid void formation at high points.	Complete procedure revision, as necessary, by July 15, 2009	Complete. HPCI & RHR ARPs required venting on loss of keepfill. CS ARP, 2D90, was revised to vent if Demineralizer Water Pressure High/Low alarm is also received

CARD	Description	Status / Schedule	Update
08-26419	Evaluate recommendation to revise Core Spray, HPCI, and RHR surveillance procedures to include venting and post-venting actions such as recording observations and/or gas volumes.	Complete procedure revision, as necessary, by July 15, 2009	CARD closed with no action; however, it is now planned to perform ongoing UT exams. New CARD (09-25230) tracks implementation
Walkdown			
08-20407 Action Items 23 and 24	Complete walkdowns of inaccessible portions of the systems during the next Refuel Outage.	Complete walkdowns by April 25, 2009. Submit results to NRC 90 days after refueling outage	Walkdowns complete. This letter submits the results
CARDs Since Nine Month Submittal			
09-24271	Documents UTs, appropriate locations, and results.	Documents appropriate UT exams	Complete
09-21429	Small amount of air found in Div. 2 Core Spray Injection Line	Vent Relocated	Complete
09-22734	Relocate High Point Vent on Div 2 Core Spray	Vent Relocated	Complete
09-23041	Div II CS High Point Vent Measured Air Void Larger Than Anticipated	Resolved	Complete
09-23066	Request Multiple WOs to Perform Confirmatory UT	Confirmatory UT performed	Complete
09-22762	Request a WO to Perform a Confirmatory UT at E2150F005B	Confirmatory UT performed	Complete
09-25230	Performing Future Ultrasonic Testing (UT) Examinations of Susceptible Locations	Action Plan under development	In progress

Table 1
Refueling Outage Walkdown Items - Update
Slope and Laser Scan Results

System	Isometric Number	Piping Section	Slope (1) [Degrees]	UT
CS Div 1	M-3052-2	All horizontal piping in the Drywell	NA (3)	No
	M-3144-2	Wall penetration at elevation 628-0 1/16" to Drywell penetration X-16B	- 0.2	Yes
CS Div 2	M-3053-2	All horizontal piping in the Drywell	NA (3)	No
HPCI	M-3167-1	From elbow at elevation 555'-6 1/8" to wall penetration	0.0	No
		From elbow at elevation 575'-0 1/2" (south of column 11) to elbow going up to floor penetration	+ 0.2	No
		From elbow at elevation 587'-5 9/16" to E4100G001 (Fins)	+ 0.6	No
	M-3163-2	From elbow south of hanger G13 to MOV E4150F042 (Torus Room)	+ 0.2 + 0.5	No
RHR	M-3152-2	From hanger G15 to hanger G04 at elevation 572'-6" (Torus Room)	Laser Scanned (2)	No
		SDC suction line from elbow at elevation 578'-5 1/4" to relief valve (E1100F029) and vents at elevation 591'	Laser Scanned (2)	No

Table 1 (continued)
Refueling Outage Walkdown Items - Update
Slope and Laser Scan Results

System	Isometric Number	Piping Section	Slope (1) [Degrees]	UT
RHR	M-3146-2 & M-3151-2	RHR pump discharge piping from division 1 Test line to division 2 test line and vents at elevation 594'	Laser Scanned (2)	No
	M-3146-2	SDC bypass around F017A	Laser Scanned (2)	Yes
	M-3151-2	24" header to F017B	Laser Scanned (2)	Yes
		SDC bypass around F017B	Laser Scanned (2)	Yes
	M-3159-2	Division 1 Drywell spray line at elevation 578-6" from elbow at N369'-3 7/8" /E399'-10 5/16" to elbow at N365'-10 5/8"/E410'-8 1/4" (Torus Room)	Laser Scanned (2)	No
	M-3164-1	Division 2 Drywell spray line at elevation 578'-0 1/8" (Torus Room)	Laser Scanned (2)	No
		Division 2 Drywell spray line at elevation 630'-9"(RB2 outside of south RWCU pump room)	+ 0.1	No
	M-2298-2	All horizontal piping in the Drywell. division 1 LPCI injection line	NA (3)	No
	M-2299-2	All horizontal piping in the Drywell. SDC suction line.	NA (3)	No
	M-2327-1	All horizontal piping in the Drywell. division 2 LPCI injection line	NA (3)	No

Notes for Table 1

1. Positive slope (+) indicates the pipe is sloped toward the vent (i.e. favorable slope). Negative slope (-) indicates the pipe is sloped away from the vent (i.e. adverse slope).

2. See Section II.4.3.1 for an evaluation of slopes derived from laser-scans.

3. N/A - Voids for the sections of piping downstream of the first normally closed motor operated isolation valve will not create a water hammer that could challenge the operability of those systems when required to mitigate any postulated events. Ref. BWROG Report TP-08-020, "Effects of Voiding in ECCS Drywell Injection Piping."

Table 2
List of Regulatory Commitments

The following table identifies those actions committed to by Detroit Edison in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments. Please direct questions regarding these commitments to Mr. Rodney W. Johnson, Manager, Nuclear Licensing at (734) 586-5076.

REGULATORY COMMITMENTS	DUE DATE / EVENT
Detroit Edison will evaluate the applicability and the need to submit a license amendment request for adopting the pertinent CLIIP at Fermi 2	Within 60 days of the issuance of the Notice of Availability in the Federal Register Status: CLIIP not yet available