"Designated Original"

Entergy

Entergy Operations, Inc.
7003 Bald Hill Road
P.O. Box 756
Port Gibson, MS 39150
Tel 601 437 6694

Michael A. Krupa
Director
Nuclear Safety Assurance

October 13, 2008

GNRO-2008/00066

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Attention: Document Control Desk

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

Grand Gulf Nuclear Station, Unit 1
Docket No. 50-416
License No. NPF-29

References:

1. NRC Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems" dated January 11, 2008.
2. Three Month Response Extension Request to NRC Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems" (GNRO 2008-00034) dated April 10, 2008
3. Three Month Response to NRC Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems" (GNRO 2008-00033) dated May 6, 2008
4. Clarification of Commitment in Three Month Response to NRC Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems" (GNRO 2008-00050) dated June 30, 2008
5. Grand Gulf Nuclear Station, Unit 1 – RE: 3-Month Response to 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. MD7831) dated September 24, 2008

Dear Sir or Madam:

The Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2008-01 (Reference 1) to request that each licensee evaluate the licensing basis, design, testing, and corrective action programs for the Emergency Core Cooling Systems (ECCS),

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Residual Heat Removal (RHR) system, and Containment Spray system, 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;
>
> (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 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; and,
>
> (c) A statement regarding which corrective actions were completed, the schedule for completing the remaining corrective actions, and the basis for that schedule."

In summary, Grand Gulf Nuclear Station (GGNS) has concluded that the subject systems/functions are in compliance with the GGNS TS definition of Operability, i.e., capable of performing their intended safety function and that they are currently in compliance with 10 CFR 50 Appendix B, Criterion III, V, XI, XVI and XVII, with respect to the concerns outlined in GL 2008-01 regarding gas accumulation in the accessible portions of these systems/ functions. As committed to in Reference 4, GGNS will complete its assessments of the inaccessible drywell portions of these systems/functions during the current Refuel Outage and provide a supplement to this report with those results within one month from startup of the outage but no later than December 19, 2008 should the outage be extended.

Attachment 1 to this letter contains the GGNS nine-month response to NRC GL 2008-01.

A commitment is included in this submittal and summarized in Attachment 2.

If you have any questions or require additional information regarding this matter, please contact Dennis Coulter at 601-437-6595.

I declare under penalty of perjury that the foregoing is true and correct. Executed on October 13, 2008.

Yours truly,

MAK/DMC:dmc

Attachments:
1. Nine-Month Response to NRC Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems.
2. Licensee Identified Commitment Table

cc: (See Next Page)

cc: NRC Senior Resident Inspector
Grand Gulf Nuclear Station
Port Gibson, MS 39150

U. S. Nuclear Regulatory Commission
ATTN: Mr. Elmo E. Collins, Jr. (w/2)
Regional Administrator, Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-4005

U.S. Nuclear Regulatory Commission
ATTN: Mr. Carl F. Lyon.,NRR/ADRO/DORL (w/2)
ATTN: ADDRESSEE ONLY
ATTN: U.S. Postal Delivery Address Only
Mail Stop OWFN/O-8B1
Washington, D.C. 20555-0001

Attachment 1 to GNRO-2008/00066

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

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

This attachment contains the nine-month response to Generic Letter (GL) 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," dated January 11, 2008.

The following information is provided in this response:

- A description of the results of evaluations that were performed pursuant to the requested actions,
- A description of the corrective actions determined necessary to ensure 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 with respect to the subject systems, and
- A statement regarding which corrective actions have been completed, the schedule for the corrective actions not yet complete, and the basis for that schedule.

The following systems were determined to be in the scope of GL 2008-01 for Grand Gulf Nuclear Station (GGNS):

- High Pressure Core Spray (HPCS) system;
- Low Pressure Core Spray (LPCS) system;
- Residual Heat Removal (RHR) system (for the following modes of operation): Low Pressure Coolant Injection (LPCI) subsystems A, B, and C, Suppression Pool Cooling, Shutdown Cooling, and Containment Spray.

A. EVALUATION RESULTS

1 LICENSING BASIS EVALUATION

The Grand Gulf Nuclear Station licensing basis was reviewed with respect to gas accumulation in the Emergency Core Cooling, Decay Heat Removal, and Containment Spray systems. This review included the Technical Specifications (TS) and TS Bases, Updated Final Safety Analysis Report (UFSAR), the Technical Requirements Manual (TRM) and TRM Bases, responses to NRC generic communications, NRC Commitments, and License Conditions.

1.1 Licensing Basis Review:

Technical Specifications 3.5.1, "ECCS – Operating" and 3.5.2, "ECCS – Shutdown" Surveillance Requirements (SRs) 3.5.1.1 and 3.5.2.3 require verification that, for each ECCS injection/spray subsystem, the piping is filled with water from the pump discharge valve to the injection valve, at a frequency of 31 days.

The Bases for SR 3.5.1.1, which are applicable to SR 3.5.2.3, discuss that maintaining the pump discharge lines of the HPCS system, LPCS system, and LPCI subsystems full of water ensures that the systems will perform properly, injecting their full capacity into the reactor coolant system upon demand.

UFSAR Section 6.3.2.2.1, "High-Pressure Core Spray (HPCS) System," states that the elevation of the HPCS pump is below the water level of both the condensate storage tank and the suppression pool, assuring a flooded pump suction. The UFSAR section further states that

air entrainment in the condensate storage tank suction is precluded by a 4 ft x 4 ft horizontal plate vortex breaker at the suction inlet and by maintaining at least 5.33 feet actual submergence over the inlet in the design basis scenario throughout the suction transfer transient (from the condensate storage tank to the suppression pool).

UFSAR Section 6.3.2.2.3, "Low Pressure Core Spray (LPCS) System," states that the LPCS pump is located in the auxiliary building below the water level in the suppression pool to assure positive pump suction.

UFSAR Section 6.3.2.2.5, "ECCS Discharge Line Fill System," states that a fill system is provided for each of the five ECCS loops to ensure that leakage from the discharge lines is replaced and the lines are always kept filled. The UFSAR section further states the following: Initial complete filling of the piping systems is accomplished using the combination of jockey pumps, condensate water supply lines, and maintenance drains, vents, and test connections. Maintenance of the filled status of the system is ensured by continuous indication of pump operation and pump discharge pressure. In accordance with monthly surveillance procedures, the uppermost vent lines in the filled system are opened and checked for flow to eliminate the possibility of the formation of air pockets. Pressure instrumentation provided on the jockey pump discharge line initiates an alarm in the main control room when pressure in the discharge line is less than the hydrostatic head required to maintain the line full of water up to the injection valves.

UFSAR Section 6.3.2.6, "Protection Provisions," when discussing ECCS suction from the suppression pool, states the following: The minimum suppression pool drawdown level, the low entrance velocities at the suction line tee, and the design of the suction strainers are all factors in the prevention of a vortex. The pool water depth and mass act to minimize and suppress the formation of eddies, swirls, and rotational flows. The possible sources of such flow characteristics, the RHR A and B lines that return to the suppression pool for pool cooling, are located as far from the ECCS suction tees as possible. LPCS and RHR C test return lines discharge in the vicinity of their respective system strainers. However, these lines are used for testing only during normal plant operation when the suppression pool water is near or at its normal level. The low entrance velocities at the suction lines tend to prevent the formation of turbulence near the suction lines. The suction strainers act to smooth and straighten flow to the volume immediately outside of the suction pipe entrance, the most critical area. The strainers are effective vortex breakers. A vortex, should one form, would not penetrate the strainer due to the small openings. Thus the possibility of an increase in entrance losses in the suction piping due to the formation of an air-entraining vortex is prevented.

Changes to Licensing Basis Documents (Corrective Actions):
For completeness in the UFSAR discussion, a discussion of the elevation of the RHR pump suction relative to suppression pool water level (e.g., to assure adequate net positive suction head or a flooded pump suction) will be added as an enhancement to Section 6.3.2.2.4 of the UFSAR. Addition of this text would envelop the Containment Spray, Decay Heat Removal, and Suppression Pool Cooling modes of RHR.

GGNS will evaluate and submit as appropriate to the NRC proposed changes (enhancements) to the plants Technical Specifications based upon the final, approved version of Technical Specification Task Force (TSTF) Traveler for unacceptable gas accumulation in ECCS, adjusted, as needed, to account for plant-specific design and licensing basis within 90 days

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following NRC publication of the Notice of Approval of the TSTF Traveler in the Federal Register.

2 DESIGN EVALUATION

The Grand Gulf Nuclear Station design basis was reviewed with respect to gas accumulation in the Emergency Core Cooling, Decay Heat Removal, and Containment Spray systems. This included Design Basis Document reviews, drawing reviews, system walkdowns, and system reviews.

2.1 Design Basis Documents Review

Design Basis Documents were reviewed for the following:

- Statements regarding system keep-fill designs and requirements
- System realignments during Design Basis actuations and how the system remains full
- Vortex correlations used to establish minimum water level setpoints or manual actions credited in the design basis LOCA
- How the General Design Criteria (GDCs) or plant specific principal design criteria listed in the Generic Letter are met or applied to the station

Periodic venting requirements are addressed later in this Attachment.

Piping for the HPCS, LPCS, and Containment Spray systems downstream of the system isolation valves are partially voided by design. These systems discharge either above the core (in the case of HPCS and LPCS) or in containment (in the case of Containment Spray); therefore, these void volumes do not impede system function.

Void size acceptability is not currently considered in the GGNS design documentation, or in the HPCS, LPCS, and RHR pump vendor manuals. However, the system designs are such that the suction piping is full of water based on the elevation of the system pumps relative to their suction sources (i.e., CST, suppression pool, or reactor vessel) and filled using the fill and vent procedures discussed later in this Attachment. The discharge piping of each system is provided with a keep-fill design up to the injection shutoff valves. As part of the keep-fill design, low pressure alarms are included for the discharge piping to provide indication of possible inability to maintain piping filled with water.

For the RHR modes that provide water to the reactor core (i.e., LPCI and Shutdown Cooling), there is no explicit fuel evaluation for acceptable voids sent to the core. However, since transient voids are expected to be of limited quantity and fully dispersed in and by the flow stream, the voids will not affect the heat transfer in the core and thus will not adversely impact the capabilities of the LPCI and Shutdown Cooling modes of RHR operation.

Changes to Design Basis Documents (Corrective Actions):
An Entergy fleet action has been taken to revise Nuclear Management Manual Procedure EN-DC-141, Design Inputs, to include an explicit line item to determine if design changes have the

potential to increase gas accumulation. No additional changes are required to GGNS Design Basis Documents.

2.2 Drawing Review

System drawings were reviewed to identify all system vents and potential high points. System high points include all areas where gas could accumulate in the system, including isolated branch lines, valve bodies, heat exchangers, sloped piping, orifices, reducers, and instrumentation.

Piping and Instrumentation Drawings (P&IDs) were reviewed to determine general system flow paths and to identify major components. Associated isometric drawings were then identified and reviewed to determine high points in the system, vents, and components requiring further evaluation via walkdowns and reviews of system operating and testing procedures. This was generally accomplished by tracing the flow path identified in the P&IDs from the source(s) of the primary pump suction, to the pump, and then to the pump discharge. Field sketches and composite drawings were reviewed, as necessary, for additional information on small bore piping.

Each line segment in the system was evaluated for potential areas of gas accumulation or air intrusion as identified above and the areas warranting further evaluation were documented.

Changes to Drawings (Corrective Actions):
Drawings were determined to be accurate. No drawing changes required.

2.3 System Walkdowns

Selected portions of the GGNS HPCS, LPCS, and RHR systems were physically inspected to verify the accuracy and completeness of the isometric drawings and to discover any areas of gas accumulation or air ingestion not already identified in the drawing review process. Also, the walkdowns served to further document and illustrate the potential areas of gas accumulation or air ingestion identified in the drawing reviews. The walkdown was conducted in the subject system pump and heat exchanger rooms in the auxiliary building, the adjacent corridors, and inside containment. This procedure was limited to working from floor and grating elevations in areas that are readily accessible without the need for portable ladders, scaffolding, etc. The process of inspection was to make observations of the piping systems and to confirm that the physical piping configuration matched the isometric drawings. Previously identified areas of potential gas accumulation or air ingestion such as unvented highpoints were inspected in particular detail whenever possible. Digital photographs were taken to assist in further review and discussion of observations and recommendations. The procedure was not an intrusive process and neither precision measurement of line slope nor ultrasonic testing (UT) for possible gas voids was conducted. Simple bubble level measurements were taken on horizontal sections of as a qualitative measure of piping system levelness to determine if more precise methods might be warranted. Measurements were also taken occasionally to verify key dimensions and elevations.

The process by which the systems were approached was to begin at the pump suction penetrations in the suppression pool wall and to methodically inspect and document the presence and location of all branch connections, valves, fittings and instrumentation all the way

to the pump inlet. The same process was implemented for the discharge piping through to the appropriate end points. Due to the inaccessibility of the drywell, no drywell lines were inspected.

Walkdowns of HPCS system piping were conducted in the HPCS room at elevation 93 ft, adjacent corridors, and the RHR B Room at elevation 119 ft. Walkdowns of approximately 75% of HPCS piping were conducted and these confirmed that system piping correlated with the HPCS system isometric drawings. It was therefore concluded that drawings for HPCS piping not inspected or seen during the walkdown are an accurate representation of the plant.

Walkdowns of LPCS system piping were conducted in the LPCS room at elevation 93 ft and the Piping Penetration Room at elevation 119 ft. Walkdowns of approximately 75% of LPCS piping were conducted and these confirmed that system piping correlated with the LPCS system isometric drawings. It was therefore concluded that drawings for LPCS piping not inspected or seen during the walkdown are an accurate representation of the plant.

Walkdowns of RHR system piping were conducted in the RHR A, B, and C rooms in the Auxiliary Building and for pipe runs inside containment but outside the drywell. Walkdowns of approximately 40% of RHR A and B and 70% of the RHR C piping showed that in all observable areas, the isometric drawings are accurate. The locations and orientations of system components are accurately represented.

The confirmed accuracy of the as-built documentation in readily accessible areas leads to a high level of confidence in the balance of system piping. As such, due to radiation dose considerations, walkdowns in contaminated, high radiation and locked high radiation areas are not warranted or needed.

Changes to Drawings based on System Walkdowns (Corrective Actions):
Because the system walkdowns confirmed the accuracy of the isometric drawings, no drawing changes were identified. No additional areas of potential gas accumulation or intrusion beyond the drawing review were found.

2.4 System Review (Fill and Vent)

System reviews consisted of a review of the fill and vent procedures in the HPCS, LPCS, and RHR System Operating Instructions (SOIs).

The normal mode of operation described in the SOIs is standby mode, which requires filling and venting as a prerequisite. Therefore, the fill and vent steps in the SOIs provide inherent protection against potential gas intrusion and as such, gas intrusion mechanisms are not considered further. The potential for gas intrusion from periodic testing is addressed later in this Attachment.

As described previously, the HPCS, LPCS, and RHR pump vendor documents do not address void acceptance criteria for pump suctions. However, as also previously discussed, the elevation of the pumps relative to their suction sources minimizes suction piping voids. Keep-fill systems are provided for the pump discharge lines. Any voids present in the suction or discharge piping are evaluated to ensure that if voids are identified, they are either acceptable (e.g., voids in return piping to the Suppression Pool) or require changes to the fill and vent steps in the SOIs to ensure that voids do not impact system function.

SOI 04-1-01-E22-1 (High Pressure Core Spray System) was reviewed for filling and venting of the HPCS system. A prerequisite to the normal mode of operation (standby mode) is to fill and vent the HPCS system. The system will therefore be filled and vented prior to being returned to the standby mode of operation.

SOI 04-1-01-E21-1 (Low Pressure Core Spray System) was reviewed for filling and venting of the LPCS system. A prerequisite to the normal mode of operation (i.e., standby mode), is to fill and vent the LPCS system. The system will therefore be filled and vented prior to being returned to the standby mode of operation.

For filling and venting of the RHR system, SOIs 04-1-01-E12-1 (Residual Heat Removal System) and 04-1-01-E12-2 (Shutdown Cooling and Alternate Decay Heat Removal Operation) were reviewed for the various modes of operation. LPCI standby is the normal mode of operation of the RHR system. All subsequent modes of operation remove the system from standby and return the system to standby mode upon completion of the activity. To place the system in LPCI standby mode, the applicable loop (A, B, or C) must first be filled and vented in accordance with RHR System fill and vent instructions.

After reviewing the fill and vent steps in comparison to the associated drawings, areas of potential gas accumulation or air ingestion were identified and summarized. Finally, appropriate corrective actions were identified.

Changes to Fill and Vent Procedures (Corrective Actions):
The table below summarizes enhancements to ensure that gas accumulation or ingestion does not impact the HPCS, LPCS, or RHR systems. Note that no changes to the HPCS or LPCS systems are required to address gas accumulation or ingestion relative to HPCS or LPCS functionality. All changes summarized below are for the RHR system.

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Line, Equipment, or Procedure	Potential Gas Accumulation or Air Ingestion	Description & Corrective Action
18"-GBB-19 (Loop A) 18"-GBB-78 (Loop B) (From HX B001 to B002)	Approximately 24' of 18" horizontal piping at EL. 134'-0" in the line between heat exchangers is not vented during fill and vent procedure.	RHR heat exchanger vent valves 1E12-F208 and F209, or 1E12-F210 and F211 exist on these lines. Add step to Fill and Vent procedure to include opening these valves during high point venting.
14"-DBA-29 (Loop A) 14"-DBA-28 (Loop B) 12"-DBA-38 (Loop C) Procedure for filling piping downstream of 1E12-F041A, B, or C, Testable Check Valve	Method for determining if piping is filled is not conclusive.	The current note below Step 5.1.1 c of SOI 04-1-01-E12-1 requires verification that the piping is filled. A positive method of verification for determining if piping is filled should be included in the procedure. Ultrasonic Testing is one possible method for this positive verification. However, the corrective action in the following item should eliminate this requirement. By incorporating Step 5.7 into Step 5.1, the positive filling of the system will be assured after any system testing or maintenance that involves this section of piping.
14"-DBA-29 (Loop A) 14"-DBA-28 (Loop B) 12"-DBA-38 (Loop C) (From Main Discharge line to Reactor Vessel)	Not filled in fill and vent procedure. Approximately 18' of 14" pipe in loop-A; 140' of 14" pipe in Loop-B; 135' of 12" pipe in Loop-C.	Step 5.1 (RHR System Fill and Vent) does not fill and vent between the RHR Injection Shutoff Valve and the LPCI Isolation Valve. Incorporate SOI 04-1-01-E12-1, Procedure Step 5.7 into Procedure Step 5.1 for filling of piping downstream of 1E12-F042A, B, or C (RHR Injection Shutoff Valves) to 1E12-F039A, B, or C (LPCI Isolation Valves) during filling and venting.

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3 TESTING EVALUATION

Grand Gulf Nuclear Station HPCS, LPCS and RHR System test procedures were reviewed to determine whether they had an impact on air intrusion/gas accumulation in the system piping. Procedures reviewed included surveillance procedures, process instructions, engineering instructions, and maintenance procedures.

Test Procedure Review:
The periodic venting procedure contained in the Monthly Functional Test Procedure for each system, the procedure used to show compliance with Technical Specification Surveillance Requirements 3.5.1.1 and 3.5.2.3, was identified and evaluated to determine the procedure's effectiveness in the following:

- Determining whether gas is present in the system
- Removing the gas from the system and ensuring that the system is sufficiently filled
- Quantifying the amount of gas present in the system
- Initiating follow-up action if required, through the GGNS Corrective Action Program (CAP).

Test procedures performed during the system standby mode of operation were reviewed to determine whether the system is filled and vented once surveillance and testing is complete. These procedures include Quarterly Functional Test procedures, System Pressure Test procedures and MOV Functional Test procedures for each system. Reviews determined whether these tests:

- Inadvertently introduced air into the system piping
- Ensured that system is sufficiently filled and vented prior to being returned to the standby mode of operation

Maintenance or test procedures that are performed during plant refueling or cold shutdown mode were not reviewed since each system will be filled and vented as per the System Operating Instruction fill and vent procedure prior to returning the system to service.

Summary of Changes to Test Procedures (Corrective Actions):
Surveillance test procedures for HPCS, LPCS, and RHR systems need to include specific acceptance criteria and actions to be taken if voids are detected, thereby making them consistent with the LPCI/RHR monthly functional test procedure. Required actions will initiate the means for quantifying and trending the amount of gas present and a process for determining possible sources of gas accumulation. Current acceptance criteria in the HPCS and LPCS monthly surveillance test procedures are based only on opening vent valves until solid streams of water are observed. The LPCI/RHR monthly functional test procedure establishes a 1 minute limit on the venting process which, when exceeded, triggers corrective action steps that include the generation of a Work Request or a Condition Report. Similarly specific criteria for the HPCS and LPCS systems will be established.

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[Note: Testing procedures not used to show compliance with Technical Specification Surveillance Requirements 3.5.1.1 and 3.5.2.3 (e.g., quarterly tests, MOV tests, etc.) are not a source of air ingestion because returning the systems to standby mode requires filling and venting as a prerequisite as defined in the HPCS, LPCS, and RHR System Operating Instructions.]

4 CORRECTIVE ACTION PROGRAM EVALUATION

Grand Gulfs Corrective Action Program would be used to document gas intrusion/accumulation issues as potential nonconforming conditions. Condition reports will be initiated for non conformances related to unacceptable quantities of gas accumulation. As part of GGNS's Corrective Action Program, Condition Reports related to plant equipment are evaluated for potential impact on operability and reportability. Therefore, GGNS's review concluded that issues involving gas intrusion/accumulation will be properly prioritized and evaluated under the Corrective Action Program.

5 CONCLUSION

Based on the evaluations completed and documented herein GGNS concludes that the evaluated systems are in compliance with the current licensing basis, design basis, and applicable regulatory requirements and are Operable. Completion of the identified corrective actions will aid in maintaining this compliance.

B. DESCRIPTION OF NECESSARY CORRECTIVE ACTIONS

There were no actions identified as being necessary to assure compliance with the applicable regulations.

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C. CORRECTIVE ACTION SCHEDULE

The table below summarizes the corrective actions and planned enhancements previously identified, the dates they were entered into the GGNS CAP, and their scheduled completion dates.

Description of Corrective Action	Date Entered Into CAP	Scheduled Completion Date
For completeness in the UFSAR discussion, a discussion of the elevation of the RHR pump suction relative to the suppression pool (e.g., to assure adequate net positive suction head or a flooded pump suction) will be added as an enhancement to Section 6.3.2.2.4 of the UFSAR. (CR-GGN-2008-00605 CA 10)	10/12/08	12/15/08
Revise EN-DC-141, Design Inputs, to include an explicit line item to determine if design changes have the potential to increase gas accumulation. (CR-HQN-2008-00880 CA 1)	10/9/08	7/30/09
Approximately 24' of 18" horizontal piping at EL. 134'-0" in the line between RHR heat exchangers is not vented during the fill and vent procedure. A step will be added to the RHR-A and RHR-B Fill and Vent procedures to include opening these valves during high point venting. (CR-GGN-2008-00605 CA 11)	10/12/08	12/31/08
Evaluate adding a positive method of verification to determining if piping has been drained to the RHR Fill and Vent procedure in SOI 04-1-01-E12-1. The note below Step 5.1.1c of states "if the piping downstream of Testable Check Valves, has been drained, suspected to have been drained or just not sure"(CR-GGN-2008-00605 CA 12)	10/12/08	12/31/08
SOI 04-1-01-E12-1, Step 5.1 (RHR System Fill and Vent) does not fill and vent between the RHR Injection Shutoff Valve and the LPCI Isolation Valve. Incorporate SOI 04-1-01-E12-1, Procedure Step 5.7 into Procedure Step 5.1 for filling of piping downstream of the RHR Injection Shutoff Valve to the LPCI Isolation Valve during filling & venting. (CR-GGN-2008-00605 CA 13)	10/12/08	12/31/08
Add specific acceptance criteria to the HPCS and LPCS monthly and quarterly functional surveillance test procedures to indicate if gas voids are present. Add corrective action steps to initiate investigation of the cause as well as the quantification and/or trending of gas in the system. (CR-GGN-2008-00605 CA 14)	10/12/08	12/31/08

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Description of Corrective Action	Date Entered Into CAP	Scheduled Completion Date
Evaluate the requirement that dynamic venting of all ECCS systems be performed prior to systems being returned to service from maintenance or other activities that may have resulted in the draining of system piping or interrupted the jockey pump's keep-fill capability. (CR-GGN-2008-00605 CA 15)	10/12/08	12/31/08

D. CONCLUSION

GGNS has evaluated the accessible portions of those systems that perform the functions described in this GL and has concluded that these systems are Operable, as defined in the GGNS TS and are in conformance to our commitments to the applicable General Design Criteria (GDC) as stated in the GGNS UFSAR.

The open actions cited above are considered to be enhancements to the existing programs/processes/procedures for assuring continued Operability of these subject systems.

As committed to in Reference 4, GGNS will complete its assessments of the inaccessible drywell portions of these systems/functions during the current Refuel Outage and provide a supplement to this report with those results within one month from startup of the outage but no later than December 19, 2008 should the outage be extended.

Attachment 2 to GNRO-2008/00066

Licensee Identified Commitments Table

Attachment 2 to GNRO-2008/00066

Licensee Identified Commitments Table

This table identifies actions discussed in this letter for which Entergy commits to perform. Any other actions discussed in this submittal are described for the NRC's information and are **not** commitments.

COMMITMENT	TYPE (Check one)		SCHEDULED COMPLETION DATE (If Required)
	ONE-TIME ACTION	CONTINUING COMPLIANCE	
GGNS will evaluate and submit as appropriate to the NRC proposed changes (enhancements) to the plants Technical Specifications based upon the final, approved version of Technical Specification Task Force (TSTF) Traveler for unacceptable gas accumulation in ECCS, adjusted, as needed, to account for plant-specific design and licensing basis.	X		Within 90 days following NRC publication of the Notice of Approval of the TSTF Traveler in the Federal Register