

NRR-DMPSPeM Resource

From: Sayoc, Emmanuel
Sent: Thursday, October 18, 2018 12:07 PM
To: Howard, Kent
Cc: Veil, Andrea; Oesterle, Eric
Subject: Revision of the River Bend License Renewal Safety Evaluation Report
Attachments: River Bend Supplemental RAI Response 9OCT2018 - ML18283A082.pdf; Revision to River Bend SER - ML18212A151 - Section 2-3-3-16 Plant Drains - Clean.pdf; Revision to River Bend SER - ML18212A151 - Section 2-3-3-16 Plant Drains - Marked Up.pdf

Importance: High

Kent,

Please pass along this information to the appropriate members of the Advisory Committee on Reactor Safeguards (ACRS), related to the action item from the September 20, 2018, River Bend ACRS Sub Committee Meeting on the Emergency Diesel Generator Vent Line ageing management.

As was discussed at the Sub Committee Meeting, Entergy submitted a supplemental response to our associated Request for Additional Information, see first attachment. Accordingly the staff revised the River Bend License Renewal Safety Evaluation Report section 2.3.3.16 "Plant Drains," see the second attachment, clean version, and the third attachment, marked up version.

These changes will be included when the SER is published as a NUREG.

If you need anything further please let me know.

Thank You,

Emmanuel "Manny" Sayoc
Safety Project Manager
NRR/DLR
301-415-4084

Hearing Identifier: NRR_DMPS
Email Number: 628

Mail Envelope Properties (Emmanuel.Sayoc@nrc.gov20181018120600)

Subject: Revision of the River Bend License Renewal Safety Evaluation Report
Sent Date: 10/18/2018 12:06:46 PM
Received Date: 10/18/2018 12:06:00 PM
From: Sayoc, Emmanuel

Created By: Emmanuel.Sayoc@nrc.gov

Recipients:

"Veil, Andrea" <andrea.veil@nrc.gov>
Tracking Status: None
"Oesterle, Eric" <Eric.Oesterle@nrc.gov>
Tracking Status: None
"Howard, Kent" <Kent.Howard@nrc.gov>
Tracking Status: None

Post Office:

Files	Size	Date & Time
MESSAGE	876	10/18/2018 12:06:00 PM
River Bend Supplemental RAI Response 9OCT2018 - ML18283A082.pdf 2841313		
Revision to River Bend SER - ML18212A151 - Section 2-3-3-16 Plant Drains - Clean.pdf 64325		
Revision to River Bend SER - ML18212A151 - Section 2-3-3-16 Plant Drains - Marked Up.pdf 71219		

Options

Priority: High
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:



Entergy Operations, Inc.
River Bend Station
5485 U.S. Highway 61N
St. Francisville, LA 70775
Tel 225-381-4177

William F. Maguire
Site Vice President
River Bend Station

RGB-47904

October 9, 2018

Attn: Document Control Desk
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

Subject: Supplemental Information Related to License Renewal Application NRC Request
for Additional Information to Clarify Response to RAI 2.3.3.16-1 Set 11
River Bend Station, Unit 1
Docket No. 50-458
License No. NPF-47

References: 1) Entergy Letter: License Renewal Application (RBG-47735 dated May 25,
2017)
2) Entergy Letter: Response to License Renewal Application NRC Request for
Additional Information (RAI) Set 11 (ML18073A068)

Dear Sir or Madam:

In Reference 1, Entergy Operations, Inc. (Entergy) submitted an application for renewal of the operating license for River Bend Station (RBS) for an additional 20 years beyond the current expiration date.

The license renewal subcommittee of the Advisory Committee on Reactor Safeguards (ACRS) met on September 20, 2018, to review the license renewal application and the associated safety evaluation report for River Bend Station (RBS). During the meeting, the subcommittee raised a question regarding the RBS response to RAI 2.3.3.16-1 (Reference 2) concerning crankcase vent piping for the emergency diesel generators. Enclosure 1 provides supplemental information to clarify the response to RAI 2.3.3.16-1 and replaces the original in its entirety.

In accordance with 10 CFR 50.91 (b)(1), Entergy is notifying the State of Louisiana and the State of Texas by transmitting a copy of this letter to the designated State Official.

If you require additional information, please contact Mr. Tim Schenk at (225)-381-4177 or tschenk@entergy.com.

I declare under penalty of perjury that the foregoing is true and correct.

No new commitments have been identified in this letter.

Sincerely,



WFM/djp

Enclosure 1: Supplemental Response to RAI 2.3.3.16-1 Set 11

cc: U. S. Nuclear Regulatory Commission
Attn: Emmanuel Sayoc
11555 Rockville Pike
Rockville, MD 20852

U. S. Nuclear Regulatory Commission
Region IV
1600 E. Lamar Blvd.
Arlington, TX 76011-4511

U. S. Nuclear Regulatory Commission
Attn: Ms. Lisa M. Regner, Project Manager
09-D-14
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

NRC Senior Resident Inspector
Attn: Mr. Jeff Sowa
5485 U.S. Highway 61, Ste. NRC
St. Francisville, LA 70775

RBF1 -18-0183

RBG-47904

Enclosure 1

Response to Request for Additional Information

Set 11 Supplement

**REQUEST FOR ADDITIONAL INFORMATION
LICENSE RENEWAL APPLICATION
RIVER BEND STATION, UNIT 1 – Supplemental Response Set 11
DOCKET NO.: 50-458
CAC NO.: MF9757
Office of Nuclear Reactor Regulation
Division of Materials and License Renewal**

The license renewal subcommittee of the Advisory Committee on Reactor Safeguards (ACRS) met on September 20, 2018, to review the license renewal application for River Bend Station (RBS). During the meeting, the subcommittee raised a question regarding the RBS response to RAI 2.3.3.16-1 concerning crankcase vent piping for the emergency diesel generators. The following supplemental response is provided to clarify the response to RAI 2.3.3.16-1. The response replaces the original response in its entirety.

Question

RAI 2.3.3.16-1 (Plant Drains)

Background

The staff performed its scoping and screening review of LRA Section 2.3.3.16 "Plant Drains." Many of the components of the Plant Drains System (DER/DFR/VTP) are typically within the scope of components that require an AMR because they provide an intended pressure-retaining boundary function for the system.

After review of:

- LRA Table 2.3.3-16;
- the nine (9) LRA drawings identified in LRA Section 2.3.3.16; and
- drawings LRA-PID-08-09A, LRA-PID-08-9B and LRA-PID-08-09D

the staff requests additional information about a system Component Type that appears on one of these drawings. The staff notes that drawing LRA-PID-08-9B showing the subject vent lines of this "Issue" is referenced as part of LRA Section 2.3.3.18, Auxiliary Systems in Scope for 10 CFR 54.4(a)(2), which Section 2.3.3.16 refers to for certain reviews.

Issue

LRA Drawing LRA-PID-08-9B identifies two vent pipes each from each Standby Diesel Generator EGS*EG1A(AR) [Coordinate M-2] and EGS*EG1B(BB) [Coordinate E-2]. The two vent pipes for each diesel generator are identified as not being subject to AMR. Respectively, the vent pipes are identified as VTP-004-4-4 and VTP-004-5-4 for EGS*EG1A(AR) and as VTP-004-6-4 and VTP-004-7-4 for EGS*EG1B(BB). LRA Section 2.3.3.16 reads in part:

... The equipment vent system (VTP) provides vents to atmosphere, outside the buildings, for tanks associated with generator hydrogen system or to vent the combustion fumes from the diesel generator crankcase and lube oil tank. ...

From the staff's review of System Design Criteria (SDC) 309 (DIV I & II), SDC 309/405 (DIV III) and LRA Section 2.3.3.16, it is not clear how the function of venting the crankcase for the Division I & II EDGs and the HPCS Diesel Generator will be maintained during the period of extended plant operations.

Request

Please identify where the LRA addresses these ventilation piping components in LRA Table 3.3.2-16 "Plant Drains Summary of Aging Management Evaluation" or provide the staff with justification why these piping components are not addressed within LRA Table 3.3.2-16.

Response

The four lines shown on LRA Drawing LRA-PID-08-9B are vent pipes for the Division I and II diesel generator engines. The Division I and II diesel generator vent pipes are not addressed within LRA Table 3.3.2-16 because they do not have a license renewal intended function. The purpose of the vent pipe is to vent the gasses from the diesel generator to the outdoors. Upon loss of the vent pipe pressure boundary, the gasses would exhaust into the room, but the diesel would continue to perform its function. When the diesel is in operation, the room ventilation system is in service, venting the room. Therefore, the loss of pressure boundary of this pipe has no impact on the diesel or personnel and it has no safety function. The function of venting the crankcase to the outdoors is not necessary for the diesel to operate under emergency conditions. Periodic surveillance testing confirms adequate crankcase venting for both Division I and II and Division III diesel engines.

The nonsafety-related Division I and II diesel engine vent lines are not subject to aging management review under 54.4(a)(2) criteria due to leakage or spray because the vent lines contain no liquids that would impact other components in the room. The vent lines are installed with seismic supports that are subject to aging management review and included in the Structures Monitoring Program. Therefore, the vent lines cannot fall and impose an unanalyzed load on the connection to the safety-related diesel engine that would render it unable to perform its intended function under both normal operation and seismic CLB design conditions.

The Division III diesel generator engine is shown on LRA drawing LRA-PID-08-09D. This diesel engine does not have a vent line to the outdoors corresponding to that of the Division I and II diesel generators. The Division III diesel generator vents the crankcase to the outdoors via the engine exhaust line.

{Typical}

Letter #: RBG-47904

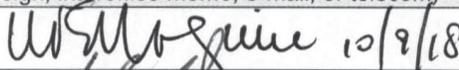
Response Due: 10/10/2018

Subject: Additional Information to Clarify
Response to RAI 2.3.3.16-1 Set 11

Date Issued for Review: 10/8/2018

Correspondence Preparer / Phone #: Pereira / 4621

Section I Letter Concurrence and Agreement to Perform Actions

POSITION / NAME	Action (concurrence, certification, etc.)	Signature (sign, interoffice memo, e-mail, or telecom)
Bill Maguire	Signature	
Jeff Reynolds	Review	
Tim Schenk	Review	
COMMENTS		

Section II Correspondence Screening

Does this letter contain commitments? If "yes," identify the commitments with due dates in the submittal and in Section III. When fleet letters contain commitments, a PCRS LO (e.g., LO-LAR, LO-WT) should be initiated with a CA assigned to each applicable site to enter the commitments into the site's commitment management system.	Yes No	<input type="checkbox"/> <input checked="" type="checkbox"/>
Does this letter contain any information or analyses of new safety issues performed at NRC request or to satisfy a regulatory requirement? If "yes," reflect requirement to update the UFSAR in Section III.	Yes No	<input type="checkbox"/> <input checked="" type="checkbox"/>
Does this letter require any document changes (e.g., procedures, DBDs, UFSAR, TS Bases, etc.), if approved? If "yes," indicate in Section III an action for the responsible department to determine the affected documents. (The Correspondence Preparer may indicate the specific documents requiring revision, if known or may initiate an action for review.)	Yes No	<input type="checkbox"/> <input checked="" type="checkbox"/>
Does this letter contain information certified accurate? If "yes," identify the information and document certification in an attachment. (Attachment 9.5 must be used.)	Yes No	<input type="checkbox"/> <input checked="" type="checkbox"/>

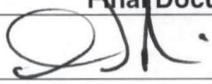
Section III

Actions and Commitments

Required Actions	Due Date	Responsible Dept.
<i>Note: Actions needed upon approval should be captured in the appropriate action tracking system</i>	N/A	N/A
Commitments	Due Date	Responsible Dept.
<i>Note: When fleet letters contain commitments, a PCRS LO should be initiated with a CA assigned to each applicable site to enter the commitments into the site's commitment management system.</i>	N/A	N/A

Section IV

Final Document Signoff for Submittal

Correspondence Preparer	Dennis Pereira 
Final Submittal Review (optional)	
Responsible Department Head	

	NUCLEAR MANAGEMENT MANUAL	QUALITY RELATED	EN-LI-106	REV. 17
		INFORMATIONAL USE	PAGE 1 OF 1	
NRC Correspondence				

ATTACHMENT 9.5

CERTIFICATION REFERENCE FORM

Letter Number: RGB-47904

Subject: Supplemental Response for RAI 2.3.3.16-1 (EDG Vents)

Certifiable Statement(s): Use one of the following methods to identify certifiable statements in the table below:

- 1 Identify location in submittal (e.g., page 3, para 2, sentence 1) OR,
- 2 Paste in the exact words of the statement(s) OR,
- 3 State "see attachment" and attach a copy of the correspondence with the certifiable statements indicated (e.g., by redlining, highlighting, or underlining, etc.).

Each statement or section of information being certified should be uniquely numbered to correspond with the supporting documentation listed below.

Objective Evidence or Basis of Peer Review: List the supporting documents in the table below and attach a copy of the documents OR give basis of peer review. Large documents need not be attached.

Certifiable Statement(s)	Objective Evidence or Basis of Peer Review
1. Attached Response to RAI 2.3.3.16-1	LRA-PID-08-09B LRA-PID-08-09D Drawing EP-58C-2, Standby Diesel Generator BLDG Equipment Vents LDT-VTP -Equipment Vent Line List 9/13/18 Email from Kenneth Klamert Seismic calculations AX-58A, B and C STP-309-0201, 0202, and 0203 SDC-309/405 for HPCS DG

Individual certifying the statement(s): Certification may be documented using e-mail, telecom, "sign off" sheet, or inter-office memorandum. The form of documentation should specifically identify the information being certified.

Stan Batch/ *Stan Batch* License Renewal 9/25/18
 Name Department Date

Peer Review: Prior to signing for certification, determine if a Peer Review is required per section 5.4[2](c). Indicate "N/A" if not required.

ALISHA STOLKSTILL *Alisha Stolkstill* ENGINEERING 7/20/18
 Name Department Date

2.3.3.16 *Plant Drains*

2.3.3.16.1 Summary of Technical Information in the Application

This section discusses plant drains systems in LRA Section 2.3.3.16, “Plant Drains.”

2.3.3.16.2 Staff Evaluation

The staff evaluated the plant drain system functions described in the LRA, USAR, Entergy’s engineering reports, and license renewal boundary drawings to verify that Entergy included within the scope of license renewal all components with intended functions as described in 10 CFR 54.4(a). The staff then reviewed those components that Entergy identified as within the scope of license renewal to verify that Entergy included all passive and long-lived components subject to an aging management review, in accordance with the requirements of 10 CFR 54.21(a)(1).

Using the evaluation methodology in LRA Section 2.1, “Scoping and Screening Methodology,” and the guidance in NUREG-1800, Revision 2, Section 2.3, “Scoping and Screening Results: Mechanical Systems,” the staff reviewed:

- LRA Section 2.3.3.16
- LRA Table 2.3.3-16
- USAR Section 9.2.4, Section 9.3.3, and Section 9.3.7
- USAR Table 3.9A-10.

The staff identified two areas where it needed additional information to complete the review of Entergy’s scoping and screening results. To obtain this information, the staff issued two requests for additional information: (1) RAI 2.3.3.16-1 and (2) RAI 2.3.3.16-3 on February 12, 2018 (ADAMS Accession No. ML18043A351). For these two RAIs, Entergy provided its response by letter dated March 14, 2018 (ADAMS Accession No. ML18073A068). Entergy provided a revised response to RAI 2.3.3.16-1 by letter dated October 9, 2018 (ADAMS Accession No. ML18283A082).

(1) RAI 2.3.3.16-1

In the first request for additional information (RAI 2.3.3.16-1), the staff requested clarification regarding two vent pipes each from each crankcase of standby diesel engine EGS*EG1A(AR) and EGS*EG1B(BB). The venting of combustion fumes from the diesel engine crankcases is discussed in LRA Section 2.3.3.16. The relevant LRA drawing (i.e., LRA-PID-08-9B) identified these vent pipes as not subject to aging management review. The staff requested that Entergy justify why these vent pipes are not subject to aging management review.

Entergy responded to RAI 2.3.3.16-1 by stating that Division I and II diesel engine vent pipes are not addressed in LRA Table 3.3.2-16 “Plant Drains-Summary of Aging Management Evaluation” and are not subject to aging management review since these vent pipes do not have a license renewal intended function. In its revised response to this RAI, Entergy further stated that:

The purpose of the vent pipe is to vent the gasses from the diesel generator to the outdoors. Upon loss of the vent pipe pressure boundary, the gasses would exhaust into the room, but the diesel would continue to perform its function. When the diesel is in operation, the room ventilation system is in service, venting the room. Therefore, the loss of pressure boundary of this pipe has no impact on the diesel or personnel and it has no safety function. The function of venting the crankcase to the outdoors is not necessary for the diesel to operate under emergency conditions. Periodic surveillance testing confirms adequate crankcase venting for both Division I and II and Division III diesel engines.

The nonsafety-related Division I and II diesel engine vent lines are not subject to aging management review under 54.4(a)(2) criteria due to leakage or spray because the vent lines contain no liquids that would impact other components in the room. The vent lines are installed with seismic supports that are subject to aging management review and included in the Structures Monitoring Program. Therefore, the vent lines cannot fall and impose an unanalyzed load on the connection to the safety-related diesel engine that would render it unable to perform its intended function under both normal operation and seismic CLB design conditions.

In contrast to the Division I and II diesel generator engines, Entergy noted that the Division III diesel engine does not have an independent crankcase vent line directly routed to the outdoors. The Division III diesel engine vents the crankcase to the outdoors via the engine exhaust line, and the engine functionality is demonstrated as a complex assembly during periodic surveillance testing.

The staff finds Entergy's response acceptable because it explains:

- why the effects of aging on the Division I, II and III standby diesel engine vent piping pressure boundary function do not require management during the period of extended operations;
- why the Division I, II and III standby diesel generator engine vent piping is not Within the Scope of License Renewal (WSLR) as defined by 10 CFR 54.4(a)(1); and
- why the Division I and II standby diesel generator engine directly connected vent piping is not WSLR as defined by 10 CFR 54.4(a)(2).

Therefore, the staff's concern described in RAI 2.3.3.16-1 is resolved.

(2) RAI 2.3.3.16-3

In the second request for additional information (RAI 2.3.3.16-3), the staff requested clarification on the instrument tubing to four pressure indicators (i.e., PI-12A/B/D/E) that were identified as being subject to aging management review on the relevant LRA drawing (LRA-PID-32-09P). In contrast, the staff noted that neither LRA Table 2.3.3-16, "Plant Drains System Components Subject to Aging Management Review," nor LRA Table 3.3.2-16 lists tubing as a component type subject to aging management review.

In response to RAI 2.3.3.16-3, Entergy acknowledged this deficiency by revising LRA Table 2.3.3-16 and LRA Table 3.3.2-16. In both tables, Entergy added under the column,

“Component Type,” tubing with an intended function of pressure boundary. In its response, Entergy stated the following:

The tubing is stainless steel exposed to environments of waste water (internal) and indoor air (external). The Internal Surfaces in Miscellaneous Piping and Ducting Components Program manages the aging effects in waste water; there are no aging effects to be managed for stainless steel in indoor air.

The staff finds Entergy’s response acceptable because it revises LRA Table 2.3.3-16 to add tubing as a plant drain component subject to aging management review and assigns the correct intended function (i.e., pressure boundary). Furthermore, Entergy revised LRA Table 3.3.2-16 to provide for managing the aging effects of waste water in the tubing. The staff’s concern described in RAI 2.3.3.16-3 is resolved.

2.3.3.16.3 Conclusion

Based on the staff’s evaluation in SER Section 2.3.3.16.2 and on its review of the LRA, USAR, Entergy’s engineering reports, license renewal boundary drawings, and RAI responses, the staff concludes that Entergy has appropriately identified the plant drains system components within the scope of license renewal as required by 10 CFR 54.4(a). The staff also concludes that Entergy has adequately identified the system components subject to an aging management review in accordance with the requirements in 10 CFR 54.21(a)(1).

2.3.3.16 *Plant Drains*

2.3.3.16.1 Summary of Technical Information in the Application

This section discusses plant drains systems in LRA Section 2.3.3.16, "Plant Drains."

2.3.3.16.2 Staff Evaluation

The staff evaluated the plant drain system functions described in the LRA, USAR, Entergy's engineering reports, and license renewal boundary drawings to verify that Entergy included within the scope of license renewal all components with intended functions as described in 10 CFR 54.4(a). The staff then reviewed those components that Entergy identified as within the scope of license renewal to verify that Entergy included all passive and long-lived components subject to an aging management review, in accordance with the requirements of 10 CFR 54.21(a)(1).

Using the evaluation methodology in LRA Section 2.1, "Scoping and Screening Methodology," and the guidance in NUREG-1800, Revision 2, Section 2.3, "Scoping and Screening Results: Mechanical Systems," the staff reviewed:

- LRA Section 2.3.3.16
- LRA Table 2.3.3-16
- USAR Section 9.2.4, Section 9.3.3, and Section 9.3.7
- USAR Table 3.9A-10.

The staff identified two areas where it needed additional information to complete the review of Entergy's scoping and screening results. To obtain this information, the staff issued two requests for additional information: (1) RAI 2.3.3.16-1 and (2) RAI 2.3.3.16-3 on February 12, 2018 (ADAMS Accession No. ML18043A351). For these two RAIs, Entergy provided its response by letter dated March 14, 2018 (ADAMS Accession No. ML18073A068). Entergy provided a revised response to RAI 2.3.3.16-1 by letter dated October 9, 2018 (ADAMS Accession No. ML18283A082).~~The staff identified two areas where it needed additional information to complete the review of Entergy's scoping and screening results. To obtain this information, the staff issued two requests for additional information: (1) RAI 2.3.3.16-1 and (2) RAI 2.3.3.16-3 on February 12, 2018 (ADAMS Accession No. ML18043A351). For these two RAIs and Entergy's responses, see ADAMS Accession No. ML18073A068, dated March 14, 2018.~~

(1) RAI 2.3.3.16-1

In the first request for additional information (RAI 2.3.3.16-1), the staff requested clarification regarding two vent pipes each from each crankcase of standby diesel engine EGS*EG1A(AR) and EGS*EG1B(BB). The venting of combustion fumes from the diesel engine crankcases is discussed in LRA Section 2.3.3.16. The relevant LRA drawing (i.e., LRA-PID-08-9B) identified these vent pipes as not subject to aging management review. The staff requested that Entergy justify why these vent pipes are not subject to aging management review.

Entergy responded to RAI 2.3.3.16-1 by stating that Division I and II diesel engine vent pipes are not addressed in LRA Table 3.3.2-16 "Plant Drains-Summary of Aging Management

Evaluation” and are not subject to aging management review since these vent pipes do not have a license renewal intended function. In its revised response to this RAI, Entergy further stated that:

The purpose of the vent pipe is to vent the gasses from the diesel generator to the outdoors. Upon loss of the vent pipe pressure boundary, the gasses would exhaust into the room, but the diesel would continue to perform its function. When the diesel is in operation, the room ventilation system is in service, venting the room. Therefore, the loss of pressure boundary of this pipe has no impact on the diesel or personnel and it has no safety function. The function of venting the crankcase to the outdoors is not necessary for the diesel to operate under emergency conditions. Periodic surveillance testing confirms adequate crankcase venting for both Division I and II and Division III diesel engines.

The nonsafety-related Division I and II diesel engine vent lines are not subject to aging management review under 54.4(a)(2) criteria due to leakage or spray because the vent lines contain no liquids that would impact other components in the room. The vent lines are installed with seismic supports that are subject to aging management review and included in the Structures Monitoring Program. Therefore, the vent lines cannot fall and impose an unanalyzed load on the connection to the safety-related diesel engine that would render it unable to perform its intended function under both normal operation and seismic CLB design conditions.

In contrast to the Division I and II diesel generator engines, Entergy noted that the Division III diesel engine does not have an independent crankcase vent line directly routed to the outdoors. The Division III diesel engine vents the crankcase to the outdoors via the engine exhaust line, and the engine functionality is demonstrated as a complex assembly during periodic surveillance testing.

The staff finds Entergy’s response acceptable because it explains:

- why the effects of aging on the Division I, II and III standby diesel engine vent piping pressure boundary function do not require management during the period of extended operations;
- why the Division I, II and III standby diesel generator engine vent piping is not Within the Scope of License Renewal (WSLR) as defined by 10 CFR 54.4(a)(1); and
- why the Division I and II standby diesel generator engine directly connected vent piping is not WSLR as defined by 10 CFR 54.4(a)(2).

Therefore, the staff’s concern described in RAI 2.3.3.16-1 is resolved. In the first request for additional information (RAI 2.3.3.16-1), the staff requested clarification regarding two vent pipes each from each crankcase of standby diesel generator EGS*EG1A(AR) and EGS*EG1B(BB). The venting of combustion fumes from the diesel generator crankcases is discussed in LRA Section 2.3.3.16. The relevant LRA drawing (i.e., LRA-PID-08-9B) identified these vent pipes as not subject to aging management review. The staff asked Entergy to justify why these vent pipes are not subject to aging management review.

~~Entergy responded to RAI 2.3.3.16-1 by stating that the subject diesel generator vent pipes do not have a license renewal intended function since the venting the crankcase is not necessary for the diesel to operate under emergency conditions. Entergy further states that:~~

~~This is shown in USAR Section 8.3.1.1.4.1, which lists two sets of conditions under which the diesel will trip: one set for both normal and emergency conditions, and one set for normal conditions only. The trip for high crankcase pressure is only listed with the set for normal conditions and not as a required trip for emergency conditions. In fact, the non-emergency trips are bypassed on receipt of an emergency start signal.~~

~~The staff notes that the protection system of the standby diesel generators is described in USAR Section 8.3.1.1.4.1 which reads in part:~~

~~3. The standby diesel generator unit is tripped under the following conditions during normal operation only.~~

~~Generator voltage controlled inverse time phase overcurrent~~

- ~~a. Generator reverse power~~
- ~~b. Generator loss of field~~
- ~~c. Extreme high jacket water temperature trip~~
- ~~d. High bearing temperature trip~~
- ~~e. Extreme low jacket water pressure trip~~
- ~~f. High crankcase pressure trip~~
- ~~g. Trip low turbo oil pressure~~
- ~~h. Trip high vibration~~
- ~~i. Trip high temperature lube oil~~
- ~~j. Low lube oil pressure trip~~
- ~~k. Generator ground overcurrent~~

~~Entergy noted that when the diesel engines are in operation, the room ventilation system performs the function of venting the standby diesel generator rooms. Entergy concluded that the loss of pressure boundary of the subject vent piping has no impact on emergency operation of the diesel engines, and it therefore has no safety function.~~

~~The staff finds Entergy's response acceptable because it adequately explains why the standby diesel generator vent piping is not subject to aging management review. The staff's concern described in RAI 2.3.3.16-1 is resolved.~~

(2) RAI 2.3.3.16-3

In the second request for additional information (RAI 2.3.3.16-3), the staff requested clarification on the instrument tubing to four pressure indicators (i.e., PI-12A/B/D/E) that were identified as being subject to aging management review on the relevant LRA drawing (LRA-PID-32-09P). In contrast, the staff noted that neither LRA Table 2.3.3-16, "Plant Drains System Components Subject to Aging Management Review," nor LRA Table 3.3.2-16 lists tubing as a component type subject to aging management review.

In response to RAI 2.3.3.16-3, Entergy acknowledged this deficiency by revising LRA Table 2.3.3-16 and LRA Table 3.3.2-16. In both tables, Entergy added under the column,

“Component Type,” tubing with an intended function of pressure boundary. In its response, Entergy stated the following:

The tubing is stainless steel exposed to environments of waste water (internal) and indoor air (external). The Internal Surfaces in Miscellaneous Piping and Ducting Components Program manages the aging effects in waste water; there are no aging effects to be managed for stainless steel in indoor air.

The staff finds Entergy’s response acceptable because it revises LRA Table 2.3.3-16 to add tubing as a plant drain component subject to aging management review and assigns the correct intended function (i.e., pressure boundary). Furthermore, Entergy revised LRA Table 3.3.2-16 to provide for managing the aging effects of waste water in the tubing. The staff’s concern described in RAI 2.3.3.16-3 is resolved.

2.3.3.16.3 Conclusion

Based on the staff’s evaluation in SER Section 2.3.3.16.2 and on its review of the LRA, USAR, Entergy’s engineering reports, license renewal boundary drawings, and RAI responses, the staff concludes that Entergy has appropriately identified the plant drains system components within the scope of license renewal as required by 10 CFR 54.4(a). The staff also concludes that Entergy has adequately identified the system components subject to an aging management review in accordance with the requirements in 10 CFR 54.21(a)(1).