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GNRO-2014/00074

October 27, 2014

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: License Renewal Application 2014 Annual Update
Grand Gulf Nuclear Station, Unit 1
Docket No. 50-416
License No. NPF-29

REFERENCE: Letter to Nuclear Regulatory Commission, "License Renewal Application
Grand Gulf Nuclear Station, Unit 1," dated October 28, 2011 (GNRO-
2011/00093)

Dear Sir or Madam:

The purpose of this letter is to provide the Nuclear Regulatory Commission (NRC) an annual update to the referenced Grand Gulf Nuclear Station (GGNS) License Renewal Application (LRA), in accordance with 10 CFR 54.21(b). During NRC review of the GGNS LRA, GGNS is required by 10 CFR 54.21(b) to provide an annual report of changes to the GGNS current licensing basis (CLB) that materially affects the contents of the GGNS LRA, including the Final Safety Analysis Report supplement. GGNS has completed the annual CLB review and is providing, in the Attachment, the changes to the LRA required by this review.

If you have any questions or require additional information, please contact James Nadeau at 601-437-2103.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 27th day of October, 2014.

Sincerely,

A handwritten signature in black ink, appearing to be "KJM/ras", written over a horizontal line.

KJM/ras

Attachment:

Current License Basis Changes to the License Renewal Application

cc: with Attachment and Enclosures

U.S. Nuclear Regulatory Commission
ATTN: Mr. John Daily, NRR/DLR
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11555 Rockville Pike
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cc: without Attachment and Enclosures

U.S. Nuclear Regulatory Commission
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NRC Senior Resident Inspector
Grand Gulf Nuclear Station
Port Gibson, MS 39150

Attachment to

GNRO-2014/00074

Current License Basis Changes to the License Renewal Application

The following changes are made to the GGNS License Renewal Application. All changes are shown with strikethroughs for deletions and underlines for additions. Affected LRA page numbers are shown in ().

2.2 Plant Level Scoping Results

(Page 2.2-9)

Table 2.2-1-B Plant EIC Systems within the Scope of License Renewal		
System Code	System Name	UFSAR Reference
<u>H22</u>	<u>Local Instrument and Racks</u>	<u>None</u>

(Page 2.2-12)

Table 2.2-2 Mechanical Systems Not within the Scope of License Renewal		
System Code	System Name	UFSAR Reference
H22 *	Local Instrument and Racks	None

* H22 is mostly an EIC system but has a few mechanical components, none of which have a license renewal intended function.

2.3.2.2 Low Pressure Core Spray

The LPCS system has the following~~no~~ intended functions for 10 CFR 54.4(a)(3).

Perform a function (isolates LPCS) that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48).

Components Subject to Aging Management Review

ASME Class 1 components with the intended functions of maintaining the reactor coolant pressure boundary and supporting an intended function for fire protection are reviewed in Section 2.3.1.2, Reactor Coolant Pressure Boundary. The spray header internal to the reactor vessel is reviewed in Section 2.3.1.1.2, Reactor Vessel Internals. Nonsafety-related components of the system whose failure could prevent satisfactory accomplishment of safety functions [10 CFR 54.4(a)(2)] not included in other reviews are reviewed in Section 2.3.2.8,

Miscellaneous ESF Systems in Scope for 10 CFR 54.4(a)(2). Remaining LPCS components are reviewed as listed below.

2.3.2.3 High Pressure Core Spray

The HPCS system has the following intended functions for 10 CFR 54.4(a)(3).

Perform a function (isolates HPCS) that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48).

Components Subject to Aging Management Review

The spray sparger and piping inside the vessel are reviewed in Section 2.3.1.1.2, Reactor Vessel Internals. Class 1 components with the intended functions of maintaining the reactor coolant pressure boundary and supporting an intended function for fire protection are reviewed in Section 2.3.1.2, Reactor Coolant Pressure Boundary. A limited number of components supporting condensate storage tank level instruments are reviewed in Section 2.3.4.1, Condensate and Refueling Water Storage and Transfer. Nonsafety-related components of the system whose failure could prevent satisfactory accomplishment of safety functions not reviewed in other sections are reviewed in Section 2.3.2.8, Miscellaneous ESF Systems in Scope for 10 CFR 54.4(a)(2). Remaining HPCS system components are reviewed as listed below.

2.3.3.1 Control Rod Drive

The CRD system has the following intended functions for 10 CFR 54.4(a)(3).

Perform a function that demonstrates compliance with the Commission's regulations for anticipated transient without scram (ATWS) (10 CFR 50.62) (ARI function).

Perform a function (assure fail-safe operation of CRD hydraulic system) that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48).

UFSAR References

Section 4.6.1.1

Components Subject to Aging Management Review

The control rod drive mechanisms (part of system B13) are Class 1 components supporting the reactor coolant pressure boundary and are reviewed in Section 2.3.1.2, Reactor Coolant Pressure Boundary. Nonsafety-related components of the system whose failure could prevent satisfactory accomplishment of safety functions [10 CFR 54.4(a)(2)] not included in other reviews are reviewed in Section 2.3.3.19, Miscellaneous Auxiliary Systems in Scope for 10 CFR 54.4(a)(2). Components that support the intended function for fire protection are reviewed in Section 2.3.3.19.

2.3.3.2 Standby Liquid Control

The SLC system has the following intended functions for 10 CFR 54.4(a)(3).

Perform a function that demonstrates compliance with the Commission's regulations for anticipated transient without scram (ATWS) (10 CFR 50.62).

Perform a function (prevents reverse flow into SLC) that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48).

Components Subject to Aging Management Review

ASME Class 1 components with the intended functions of maintaining the reactor coolant pressure boundary and supporting an intended function for fire protection are reviewed in Section 2.3.1.2, Reactor Coolant Pressure Boundary. Nonsafety-related components of the system whose failure could prevent satisfactory accomplishment of safety functions [10 CFR 54.4(a)(2)] not included in other reviews are reviewed in Section 2.3.3.19, Miscellaneous Auxiliary Systems in Scope for 10 CFR 54.4(a)(2).

2.3.3.3 Suppression Pool Makeup

The SPMU system has no intended functions for 10 CFR 54.4(a)(2) or (a)(3).

The SPMU system has the following intended functions for 10 CFR 54.4(a)(3).

Perform a function (support pool level instrumentation isolation) that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48).

2.3.3.4 Leakage Detection and Control

Main Steam Isolation Valve Leakage Control System

The MSIV-LCS system has the following intended functions for 10 CFR 54.4(a)(3).

Perform a function that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48).

Components Subject to Aging Management Review

Class 1 components supporting the reactor coolant pressure boundary and an intended function for fire protection are reviewed in Section 2.3.1.2, Reactor Coolant Pressure Boundary. A small number of leak detection system components are evaluated in Section 2.3.3.6, Fuel Pool Cooling and Cleanup. Nonsafety-related components of the leak detection system and the MSIV-LCS systems whose failure could prevent satisfactory accomplishment of safety functions not reviewed in other sections are reviewed in Section 2.3.3.19, Miscellaneous Auxiliary Systems in Scope for 10 CFR 54.4(a)(2)

2.3.3.8 Component Cooling Water

The CCW system has ~~no~~ the following intended functions for 10 CFR 54.4(a)(3).

Perform a function (isolation of CCW from SSW) that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48).

2.3.3.9 Plant Service Water

The PSW system has ~~no~~ the following intended functions for 10 CFR 54.4(a)(3).

Perform a function (isolation of CCW from PSW) that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48).

Components Subject to Aging Management Review

Nonsafety-related components of the system whose failure could prevent satisfactory accomplishment of safety functions [10 CFR 54.4(a)(2)] not included in other reviews are reviewed in Section 2.3.3.19, Miscellaneous Auxiliary Systems in Scope for 10 CFR 54.4(a)(2). Nonsafety-related components that support the intended function (SW to PSW cross-tie isolation) for fire protection are reviewed in Section 2.3.3.19. Remaining PSW components are reviewed as listed below.

2.3.3.17 Control Room Heating, Ventilation and Air Conditioning

The CR HVAC system has ~~no~~ the following intended functions for 10 CFR 54.4(a)(3).

Perform a function that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48).

2.3.3.19 Miscellaneous Auxiliary Systems in Scope for 10 CFR 54.4(a)(2)

(Page 2.3-64)

System Description

The following systems within the scope of license renewal based on the criterion of 10 CFR 54.4(a)(2) are not described elsewhere in the application. Each system has the following intended function.

Maintain integrity of nonsafety-related components such that no physical interaction with safety-related components could prevent satisfactory accomplishment of a safety function.

The systems described below have components that support this intended function. For systems with intended functions that meet additional scoping criteria, the other intended functions are noted in the descriptions below with a reference to the section where the affected components are evaluated (e.g., Section 2.3.2.7, Containment Penetrations for primary containment penetrations). ~~Of the systems described below, only reactor water cleanup has an intended function for 10 CFR 54.4(a)(3).~~

(Page 2.3-66 Section 2.3.3.19)

Reactor Water Cleanup

The RWCU system has the following intended function for 10 CFR 54.4(a)(3).

- Perform a function (isolate reactor coolant blowdown to the condenser and isolate the RWCU filter/demineralizer from the RCPB) that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48).

2.3.4.2 Miscellaneous Steam and Power Conversion Systems in Scope for 10 CFR 54.4(a)(2)

(Page 2.3-214)

System Description

The following systems within the scope of license renewal based on the criterion of 10 CFR 54.4(a)(2) are not described elsewhere in the application. Each system has the following intended function.

- Maintain integrity of nonsafety-related components such that no physical interaction with safety-related components could prevent satisfactory accomplishment of a safety function.

The systems described below have components that support this intended function. For systems with intended functions that meet additional scoping criteria, the other intended functions are noted in the descriptions below with a reference to the section where the affected components are evaluated (e.g., Section 2.3.2.7, Containment Penetrations for primary containment penetrations). ~~None of these systems has an intended function for 10 CFR 54.4(a)(3).~~

(Page 2.3-216)

Condensate and Feedwater

In addition to its intended function for 10 CFR 54.4(a)(2), the condensate and feedwater system has the following intended function for 10 CFR 54.4(a)(3).

- Perform a function (isolate feedwater system) that demonstrates compliance with the Commission's regulations for fire protection (10 CFR 50.48).

Components supporting the intended function for fire protection are reviewed in Section 2.3.4.2.

Condensate Cleanup

In addition to its intended function for 10 CFR 54.4(a)(2), the condensate system has the following intended function for 10 CFR 54.4(a)(3).

- Perform a function (isolates flow to the precoat filters) that demonstrates compliance with the Commission's regulations for fire protection (10CFR 50.48).

Components supporting the intended function for fire protection are reviewed in Section 2.3.4.2.

**Table 3.4.2-2-16
Condenser Air Removal System
Nonsafety-Related Components Affecting Safety-Related Systems
Summary of Aging Management Evaluation**

Table 3.4.2-2-16: Condenser Air Removal System, Nonsafety-Related Components Affecting Safety-Related Systems								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Item	Table 1 Item	Notes
<u>Valve body</u>	<u>Pressure boundary</u>	<u>Stainless steel</u>	<u>Air – indoor (ext)</u>	<u>None</u>	<u>None</u>	<u>VIII.I.SP-12</u>	<u>3.4.1-58</u>	<u>A</u>
<u>Valve body</u>	<u>Pressure boundary</u>	<u>Stainless steel</u>	<u>Treated water > 140°F (int)</u>	<u>Cracking</u>	<u>Water Chemistry Control – BWR</u>	<u>VIII.C.SP-88</u>	<u>3.4.1-11</u>	<u>C, 401</u>
<u>Valve body</u>	<u>Pressure boundary</u>	<u>Stainless steel</u>	<u>Treated water > 140°F (int)</u>	<u>Loss of material</u>	<u>Water Chemistry Control – BWR</u>	<u>VIII.C.SP-87</u>	<u>3.4.1-16</u>	<u>C, 401</u>

**Table 2.3.2-8-3
High Pressure Core Spray System
Nonsafety-Related Components Affecting Safety-Related Systems
Components Subject to Aging Management Review**

Component Type	Intended Function¹
<u>Sight glass</u>	<u>Pressure boundary</u>

**Table 3.2.2-8-3
High Pressure Core Spray System
Nonsafety-Related Components Affecting Safety-Related Systems
Summary of Aging Management Evaluation**

Table 3.2.2-8-3: High Pressure Core Spray System, Nonsafety-Related Components Affecting Safety-Related Systems								
Component Type	Intended Function	Material	Environment	Aging Effect Requiring Management	Aging Management Program	NUREG-1801 Item	Table 1 Item	Notes
<u>Sight glass</u>	<u>Pressure boundary</u>	<u>Copper alloy > 15% Zn or > 8% Al</u>	<u>Air – indoor (ext)</u>	<u>None</u>	<u>None</u>	<u>V.F.EP-10</u>	<u>3.2.1-57</u>	<u>A</u>
<u>Sight glass</u>	<u>Pressure boundary</u>	<u>Copper alloy > 15% Zn or > 8% Al</u>	<u>Treated water (int)</u>	<u>Loss of material</u>	<u>Selective Leaching</u>	<u>VII.E3.AP-32</u>	<u>3.3.1-72</u>	<u>C</u>
<u>Sight glass</u>	<u>Pressure boundary</u>	<u>Copper alloy > 15% Zn or > 8% Al</u>	<u>Treated water (int)</u>	<u>Loss of material</u>	<u>Water Chemistry Control – BWR</u>	<u>VII.E3.AP-140</u>	<u>3.3.1-22</u>	<u>C, 201</u>
<u>Sight glass</u>	<u>Pressure boundary</u>	<u>Glass</u>	<u>Air – indoor (ext)</u>	<u>None</u>	<u>None</u>	<u>V.F.EP-15</u>	<u>3.2.1-60</u>	<u>A</u>
<u>Sight glass</u>	<u>Pressure boundary</u>	<u>Glass</u>	<u>Treated water (int)</u>	<u>None</u>	<u>None</u>	<u>V.F.EP-29</u>	<u>3.2.1-60</u>	<u>A</u>