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March 27, 1984

Mr. F. L. Sims, Director
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Idaho Falls, ID 83401

TRANSMITTAL OF GRAND GULF, UNIT 1, REPORT A6816 - LPL-106-84

Ref: J. M. Fehring, H. C. Rockhold and T. L. Cook, Audit of Nuclear
Plant Technical Specifications Grand Gulf Nuclear Station, Unit 1,
Docket No. 50-416, EGG-EA-6542, March 1984

Dear Mr. Sims:

Enclosed is the referenced final report. This report determined that there are inconsistencies between three Technical Specification Sections, the Final Safety Analysis Report, and the Safety Evaluation Report for Grand Gulf Nuclear Station, Unit 1. This report issued under FIN A6816 completes Node 106-D1 on the FY1984 NRC Support Milestone Chart.

Very truly yours,

for Hunter for

L. P. Leach, Manager
Reactor Evaluation Programs

JMF:jh

Enclosure:
As Stated

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EGG-EA-6542

March 1984

AUDIT OF NUCLEAR PLANT TECHNICAL SPECIFICATIONS

GRAND GULF NUCLEAR STATION, UNIT 1

DOCKET NO. 50-416

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Prepared for the
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GRAND GULF NUCLEAR STATION UNIT 1
AUDIT OF NUCLEAR PLANT TECHNICAL SPECIFICATIONS
Docket No. 50-416
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ABSTRACT

This report documents the review of the Grand Gulf Nuclear Station Unit 1, Technical Specifications (T/S) to determine if selected sections of the T/S are consistent with the Grand Gulf Final Safety Analysis Report (FSAR) as amended, and the Grand Gulf Safety Evaluation Report (SER) as supplemented. Inconsistencies are listed in this report but no further evaluation was conducted to determine if the inconsistency was an indication of an error in any of the subject documents.

FOREWARD

This report is supplied as part of the "Audit of Nuclear Plant Technical Specifications" being conducted for the U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Division of Licensing, by EG&G Idaho, Inc., NRC Licensing Support Section.

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AUDIT OF NUCLEAR PLANT TECHNICAL SPECIFICATIONS

1. INTRODUCTION

The Grand Gulf Nuclear Station Unit 1, (Grand Gulf-1) is a boiling water reactor (BWR) plant. It has been selected for an audit to determine if the Grand Gulf-1 Technical Specifications (T/S)¹ are consistent with the Grand Gulf-1 Final Safety Analysis Report (FSAR)² as amended and the Grand Gulf-1 Safety Evaluation Report (SER)³ as supplemented. The specific sections of the T/S selected for audit and summary results are listed in Table I. Inconsistencies between these sections of the T/S and the FSAR and SER were identified but no further evaluation was conducted to determine if the inconsistencies were indications of error in any of the subject documents.

2. REVIEW CRITERIA

The T/S Limiting Conditions for Operation (LCOs) and Action Statements for each technical specification listed in Table I (Section 3) were compared to the FSAR and SER to determine if the T/S are consistent with the FSAR and SER. Emphasis was on the T/S Operational Mode 1, power operation, with exceptions noted in this report. Setpoints and lists of valves, instruments, overcurrent protective devices and electrical buses in the T/S were checked against tables in the FSAR and SER.

The SER was reviewed to ensure that requirements in the SER were addressed in the T/S.

The T/S bases and surveillance requirements were not reviewed in this audit of the T/S.

An explanation of each inconsistency between the T/S and the FSAR and SER is included in this report.

3. DISCUSSION

The following inconsistencies were identified:

1. T/S Section 3/4.3.2 (Isolation Actuation Instrumentation)

- a. T/S, Amendment 9, Table 3.3.2-1 (Isolation Actuation Instrumentation), Item 5.m, includes "Drywell Pressure-High" concurrent with "RCIC Steam Supply Pressure-Low", as a signal which causes Valve Group 4 and Valve Group 9 to close isolating Reactor Core Isolation Cooling (RCIC).

However, Chapter 5.4.6, Reactor Core Isolation Cooling System, (pages 5.4-15 and 5.4-16) of the FSAR does not identify "Drywell Pressure-High" concurrent with "RCIC Steam Supply Pressure-Low" as an RCIC isolation signal.

- b. Item 5.h of T/S Table 3.3.2-1 (Isolation Actuation Instrumentation) identifies a "Main Steam Line Tunnel Temperature Timer". The function of the timer is to delay RCIC isolation for 30 minutes (to allow the operator time to establish an alternate means of Reactor Vessel Level Control).

A timer is identified in the Figure 7.6-17 (Leak Detection System) of the FSAR as Instrument E-31R617. However, the FSAR does not identify the function of this timer. Without an FSAR discussion, the timer identified in Figure 7.6-17 cannot be verified as the timer in Table 3.3.2-1 Item 5.h. of T/S.

- c. Item 2.b of T/S Table 3.3.2-2 (Isolation Actuation Instrumentation Setpoints) identifies the "Main Steam Line Flow-High" setpoint as ≤ 169 psid. A 169 psid signal corresponds to 140% steam flow. The FSAR identifies 140% steam flow as the required "Main Steam Line Flow-High" setpoint.

However, Table 7.3-10 (Containment and Reactor Vessel Control System Instrumentation Specifications) of the FSAR identifies the setpoint as ≤ 133.5 psid.

- d. Item 2.b of T/S Table 3.3.2-2 (Isolation Actuation Instrumentation Setpoints) requires an instrument with an indicating range of -50/0/250 psid in order to indicate the ≤ 169 psid trip setpoint.

However, Table 7.3-10 (Containment and Reactor Vessel Control System Instrumentation Specifications) of the FSAR identifies an instrument with an indicating range of -15/0/150 psid.

2. T/S Section 3/4.6.4 (Containment and Drywell Isolation Valves)

Sections 3.6.4-1.1.b through 3.6.4-1.4.b of T/S Table 3.6.4-1 (Containment and Drywell Isolation Valves)^a lists valves that are not identified as required in the FSAR Table 6.2-44 (Containment Isolation Valves).

3. T/S Section 3/4.6.6.2 (Secondary Containment Automatic Isolation Dampers/Valves)

The completeness of T/S Table 3.6.6.2-1, (Secondary Containment Isolation Dampers/Valves) cannot be verified by FSAR Table 7.6-12,

a. Some of the valves are listed in FSAR Tables 7.6-12 (Auxiliary Building Isolation System Actuated Equipment List), 6.2-48 (Primary Containment Integrated Leakage Rate Instrumentation), and Table 6.2-49 (Reactor Containment Penetration and Containment Isolation Valve Leakage Rate Test List).

(Auxiliary Building Isolation System Actuated Equipment List), because the specific Isolation Dampers are not listed in FSAR Table 7.6-12. The Isolation Valves are listed.

Table I contains a summary of the Grand Gulf Unit 2 T/S sections reviewed; consistencies and inconsistencies with the FSAR and/or the SER are shown.

TABLE I. GRAND GULF-1 TECHNICAL SPECIFICATION/FSAR/SER CONSISTENCY SUMMARY

<u>SECTION</u>	<u>CONSISTENT/INCONSISTENT</u>
<u>3/4.3 INSTRUMENTATION</u>	
3/4.3.2 ISOLATION ACTUATION INSTRUMENTATION	Inconsistent
3/4.3.3 EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION	Consistent
<u>3/4.5 EMERGENCY CORE COOLING SYSTEMS</u>	
3/4.5.1 ECCS - OPERATING	Consistent
3/4.5.3 SUPPRESSION CHAMBER	Consistent
<u>3/4.6 CONTAINMENT SYSTEMS</u>	
3/4.6.1 PRIMARY CONTAINMENT	Consistent
Primary Containment Integrity	Consistent
Primary Containment Leakage	Consistent
Primary Containment Air Locks	Consistent
MSIV Leakage Control System	Consistent
Feedwater Leakage Control System	Consistent
Primary Containment Structural Integrity	Consistent
Primary Containment Internal Pressure	Consistent
Primary Containment Purge System	Consistent

TABLE I. (Continued)

<u>SECTION</u>	<u>CONSISTENT/INCONSISTENT</u>
3/4.6.2 DRYWELL	
Drywell Integrity	Consistent
Drywell Bypass Leakage	Consistent
Drywell Air Locks	Consistent
Drywell Structural Integrity	Consistent
Drywell Internal Pressure	Consistent
3/4.6.3 DEPRESSURIZATION SYSTEMS	
Suppression Chamber	Consistent
Primary Containment Spray	Consistent
Suppression Pool Cooling	Consistent
Drywell-Suppression Chamber Differential Pressure	Consistent
3/4.6.4 CONTAINMENT AND DRYWELL ISOLATION VALVES	Inconsistent
3/4.6.5 SECONDARY CONTAINMENT	
Secondary Containment Automatic Isolation Dampers/Valves	Inconsistent
Standby Gas Treatment System	Consistent
3/4.6.7 ATMOSPHERE CONTROL	
Containment and Drywell Hydrogen Recombiner Systems	Consistent
Drywell Purge System	Consistent
<u>3/4.8 ELECTRICAL POWER SYSTEMS</u>	
3/4.8.1 A.C. SOURCES	Consistent
A.C. Sources-Operating	Consistent

TABLE I. (Continued)

<u>SECTION</u>	<u>CONSISTENT/INCONSISTENT</u>
3/4.8.2 ONSITE POWER DISTRIBUTION SYSTEMS 3/4.8.3	
A.C. Distribution - Operating	Consistent
D.C. Distribution - Operating	Consistent
3/4.8.4 Primary Containment Penetration Conductor Overcurrent Protective Devices	Consistent

4. CONCLUSION

As shown in Table I, 32 technical specification sections were compared with information in the FSAR and SER for Grand Gulf, Unit 1. Inconsistencies were identified in three sections of the technical specifications shown in Table I. This review did not determine the significance of the inconsistency or which of the documents was in error.

5. REFERENCES

1. Grand Gulf Technical Specifications Rev. June 1982
2. Grand Gulf FSAR up to Amendment No. 57
3. Grand Gulf SER up to Amendment No. 4