

GENERAL ELECTRIC

NUCLEAR POWER

SYSTEMS DIVISION

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MFN 081-83
JNF 030-83

May 5, 1983

U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, DC 20555

Attention: Mr. D.G. Eisenhut
Division of Licensing

Gentlemen:

SUBJECT: IN THE MATTER OF 238 NUCLEAR ISLAND
GENERAL ELECTRIC STANDARD SAFETY ANALYSIS REPORT
(GESSAR II) DOCKET NO. STN 50-447

RESOLUTION OF OUTSTANDING ISSUES

Attached please find proposed resolutions to selected outstanding issues.
This information is provided in the following attachments:

Attachment
Number

Branch

1

Containment Systems

2

Instrumentation and Control
Systems

Sincerely,

CA Cameron for

Glenn G. Sherwood, Manager
Nuclear Safety & Licensing Operation

Attachment

cc: F.J. Miraglia (w/o attachments)
D.C. Scaletti

C.O. Thomas (w/o attachments)
L.S. Gifford (w/o attachments)

E003

ATTACHMENT NO. 1

PROPOSED RESOLUTION TO
CONTAINMENT SYSTEMS BRANCH
OUTSTANDING ISSUES

Outstanding Issue (10)

Containment Isolation (SER Section 6.2.4)

GE agrees to provide dual (series) valve barriers for test, vent and drain connections which are outside containment and can communicate with the containment atmosphere or suppression pool.

Details of the dual valve barriers will be provided before the first applicant references GESSAR II.

Outstanding Issue (12)

Containment Purge (SER Section 6.2.4.1)

GE agrees to provide separate penetrations for purging during normal operation. In addition, GE agrees to use 9-inch penetrations and valves for these purge lines unless GE can demonstrate to the satisfaction of the NRC staff that a larger diameter is justified.* Details of the purge system will be provided before the first applicant references GESSAR II.

*Per BTP CSB 6-4 the size of the purge lines should be about 8-inches in diameter for PWR plants and this line size may be overly conservative from a radiological viewpoint for the Mark III BWR plant; therefore, larger lines may be justified.

ATTACHMENT 2
PROPOSED RESOLUTION TO INSTRUMENTATION AND
CONTROL BRANCH OUTSTANDING ISSUES

Outstanding Issue (13)

Post-Accident Monitoring Instrumentation (SER Section 7.5.2.2)

The GESSAR II design is assessed against Regulatory Guide 1.97 Revision 2 in Appendix 1D with supplementary justification for deviations provided on the docket (cover letter G. G. Sherwood to D. G. Eisenhower dated April 28, 1983). The assessment including the deviations and justifications are still under review by the NRC.

GE agrees that the GESSAR II design will meet designated portions of the guide; and any deviations to the remainder of the guide will be justified to the satisfaction of the staff prior to referencing GESSAR II by the first applicant.

Outstanding Issue (14)

Manual Initiation of Safety Systems (SER Section 7.3.2.7)

- o HPCS injection valve interlocks: GE agrees to upgrade the Level 8 trip sensor logic from its present two-out-of-two signal to a one-out-of-two-taken-twice signal as indicated in GESSAR II, Section 19.3.7.42.
- o Containment spray isolation valves: In event of interlock failure, the operator can bypass the interlock and open the valve directly from the remote shutdown panel. Therefore, the present design is considered acceptable if provision is made to alert the operator of this capability in the emergency procedures.

The emergency procedures for GESSAR II are contained in Appendix 18A. Sections 18A.3.3 and 18A.3.4 will be amended as indicated in the attached markup.

18A.3.3 CN/T Monitor and Control Containment Temperature

(NOTE: Caution 6 applies.)

___ CN/T-1 When containment temperature exceeds 90°F,
operate available containment cooling.

___ CN/T-2 Before containment temperature reaches 185°F

BUT

only if suppression chamber pressure is above
1.1 psig,

initiate containment sprays. *Should interlocks fail such
that containment spray valve is prevented from opening, use
transfer control at Remote Shutdown Panel.*

___ CN/T-3 If containment temperature cannot be maintained
below 185°F, EMERGENCY RPV DEPRESSURIZATION IS
REQUIRED;

enter EP-1 (RPV Control) at Step RC-1 AND
execute it concurrently with this procedure.

___ CN/T-4 If containment temperature reaches the RPV Satura-
tion Temperature (Figure 18A-4),
RPV FLOODING IS REQUIRED. Enter EP-1 at Step RC-1.

18A.3.4 PC/P Monitor and Control Primary Containment Pressure

(NOTE: This procedure applies to containment and
drywell pressures.)

___ PC/P-1 Operate the following systems, as required:

- ___ • Containment pressure control systems.
Use [*] (Containment Pressure Control).

*Separate procedure - Applicant to provide.

18A.3.4 PC/P Monitor and Control Primary Containment Pressure
(Continued)

- SBT and drywell purge, only when the temperature in the space being evacuated is below 212°F.

Use [*] (SBT Operation) and [*] (Drywell Purge Operation).

PC/P-2 Before containment pressure reaches 3.2 psig,

BUT

only if containment pressure is above

1.1 psig initiate containment sprays. *Should interlocks fail such that containment spray valve is prevented from opening, use transfer control at Remote Shutdown Panel.*
(NOTE: Cautions 8 and 18 apply.)

PC/P-3 If containment pressure cannot be maintained below the Pressure Suppression Pressure (about 10 psig)**

EMERGENCY RPV DEPRESSURIZATION IS REQUIRED.

Enter EP-1 at Step RC-1.

PC/P-4 If containment pressure cannot be maintained below the Primary Containment Design Pressure [15 psig]**

RPV FLOODING IS REQUIRED.

Enter EP-1 at Step RC-1.

*Separate procedure - Applicant to provide.

**Data for Human Factors review purpose only. Applicant to provide plant unique data for plant procedures.

18A.3.4 PC/P Monitor and Control Primary Containment Pressure
(Continued)

___ PC/P-5 If containment pressure cannot be maintained
below the [upper limit of Containment Pressure
Indication]

then irrespective of whether adequate core cooling is
assured

initiate containment sprays.

(NOTE: Cautions 8 and 18 apply.)

{ Should interlocks fail
such that containment
spray valve is prevented
from opening, use transfer
control at Remote Shutdown
panel.

___ PC/P-6 If containment pressure exceeds the [Upper
Limit of Containment Pressure Indication],
vent the primary containment in accordance with [*]
Containment Venting) to reduce AND maintain
pressure below the [Upper Limit of Containment
Pressure Indication].

(NOTE: Caution 22 applies.)

18A.3.5 SP/L Monitor and Control Suppression Pool Water Level

___ SP/L-1 Maintain suppression pool water level between
20 ft 5 in. and 19 ft 11 in.

Refer to [*] (sampling) prior to discharging water
[outside of the containment].

Suppression pool makeup may be augmented by SPMS.

*Separate procedure - Applicant to provide.

**Data for Human Factors review purposed only. Applicant to provide plant unique data for plant procedures.