

August 25, 1988

Docket

Docket No. 50-458

LICENSEE: Gulf States Utilities

FACILITY: River Bend Station, Unit No. 1

SUBJECT: SUMMARY OF AUGUST 18, 1988 MEETING

On August 18, 1988, members of the NRC staff met with representatives of Gulf States Utilities Company (GSU) in Rockville, Maryland. The purpose of the meeting was to discuss a forthcoming license amendment application that would permit the performance of certain local leak rate tests of containment isolation valves in parallel with refueling operations. A list of attendees is enclosed (Enclosure 1).

The current River Bend Station technical specifications regarding refueling operations, require that containment integrity be established and that all penetrations be closed that are required to be closed during accident conditions. To perform Type C local leak rate tests, certain containment isolation valves require that 3/4-inch vent and drain valves be opened to drain liquid from the lines. This process provides a containment leakage path through the 3/4-inch lines. Thus, the local leak rate tests for these valves cannot currently be performed during refueling operations.

The licensee is planning to submit a proposed technical specification change that will allow up to 20 of these lines to be open at one time for the purpose of performing the leak rate tests. The proposed change is discussed in the enclosed handouts provided by the licensee (Enclosure 2). The licensee has performed an analysis of the consequences of a fuel handling accident inside containment assuming that the proposed amendment is approved. As shown in Enclosure 2, the radiological effects calculated by the licensee are small fractions of the regulatory limits.

The licensee estimates that eight days will be saved during the next refueling outage if this change is approved.

/s/

Walter A. Paulson, Project Manager
Project Directorate - IV
Division of Reactor Projects - III,
IV, V and Special Projects

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PDR ADOCK 05000458
P PNU

Enclosures:
As stated

cc w/enclosures:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

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A handwritten signature in cursive script that reads "Walter A. Paulson".

Walter A. Paulson, Project Manager
Project Directorate - IV
Division of Reactor Projects - III,
IV, V and Special Projects

Enclosures:
As stated

cc w/enclosures:
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ENCLOSURE 1

ATTENDANCE LIST

MEETING ON AUGUST 18, 1988

NRC STAFF AND GULF STATES UTILITIES REPRESENTATIVES

NAME

ORGANIZATION

W. A. Paulson
D. A. Shelton
R. J. King
Marvin Morris
Irwin Spickler
O. D. T. Lynch, Jr.
Joseph P. Schippert
David M. Rothberg
Jack Kudrick
S. R. Radebaugh

NRC/NRR
GSU/Nuclear Licensing
GSU/Supv. - Nuc. Licensing
GSU/Sr. Nuc. Engineer
NRR/PRPB
NRR/PRPB/RMHES
GSU/Sr. Operations Eng.
Stone & Webster
NRR/SPLB
GSU/Outage Management

GSU/NRC August 18, 1988

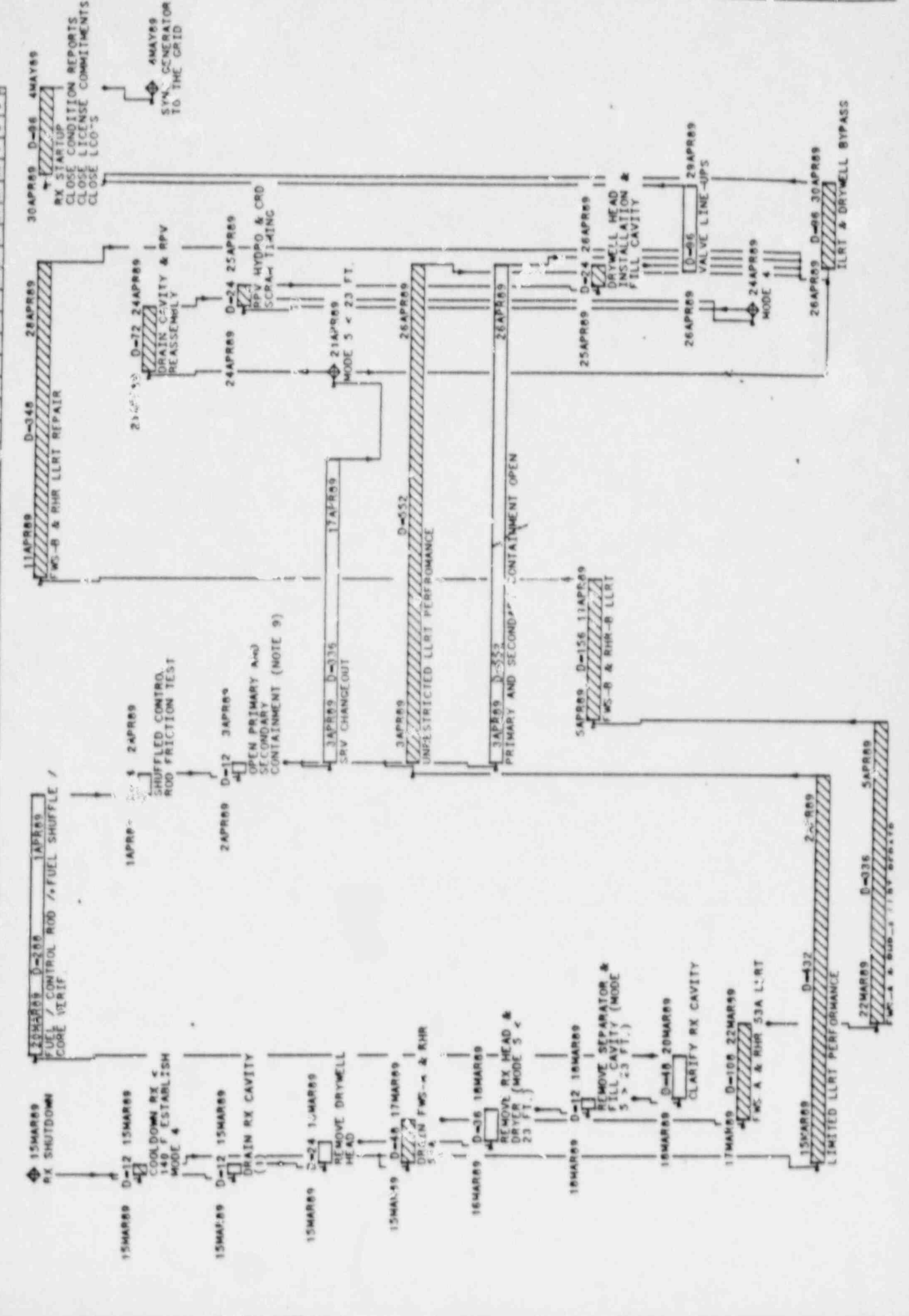
Meeting Agenda

Primary Containment Integrity License Amendment

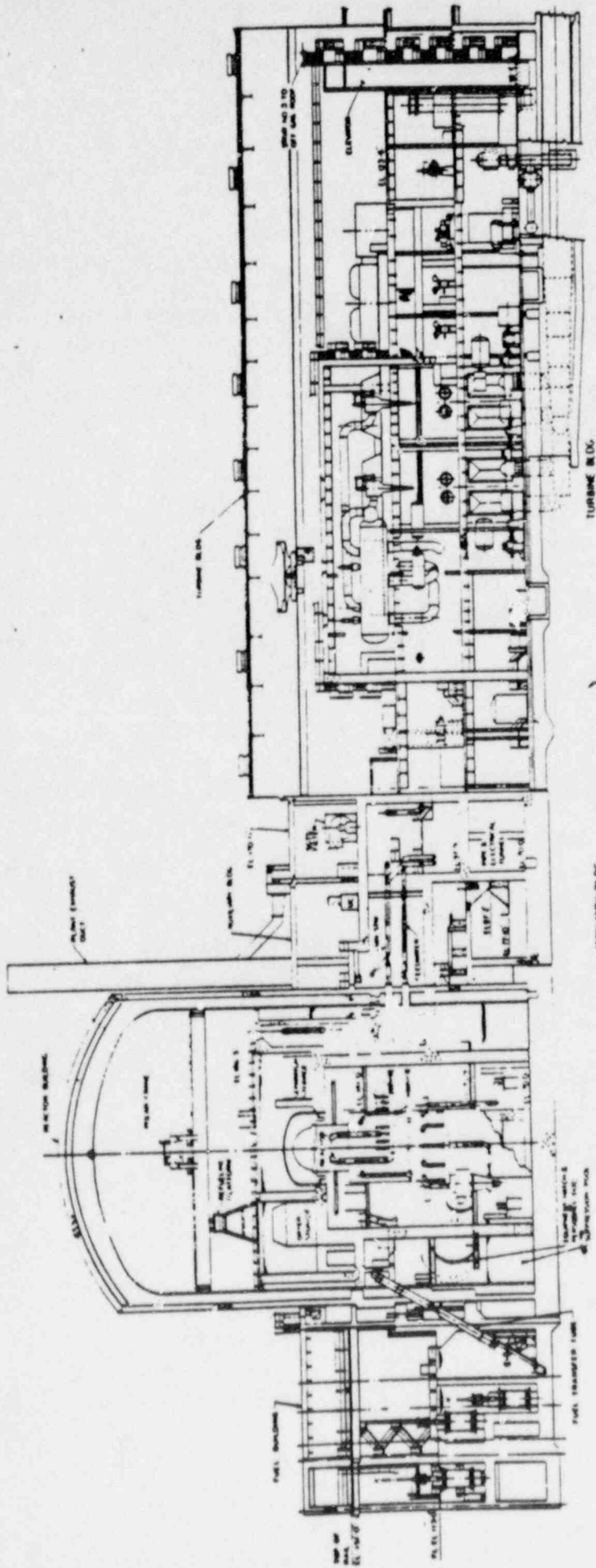
- INTRODUCTION R. King
- REVIEW OF RF2 ACTIVITIES AND MILESTONES S. Radebaugh
- RBS DESIGN OVERVIEW M. Morris
- LEAK RATE TESTING M. Morris
 - o Performance Method
 - o Engineering Justification
- DISCUSSION
- CONCLUSION

RF-2 STATISTICS

• Duration	50 Days
• Primary Containment in effect	25 Days
• Additional Containment Integrity Estimated For CRD Removal And Shutdown Margin Bundles	4 Days
• Total LLRT Valves	199
• Total LLRT STP's	47



PRIMARY CONTAINMENT INTEGRITY - FUEL HANDLING



O PURPOSE OF PROPOSED TECHNICAL SPECIFICATION CHANGE

- PERMIT PERFORMANCE OF LLRT IN PARALLEL WITH REFUELING OPERATIONS

O CURRENT TECHNICAL SPECIFICATIONS

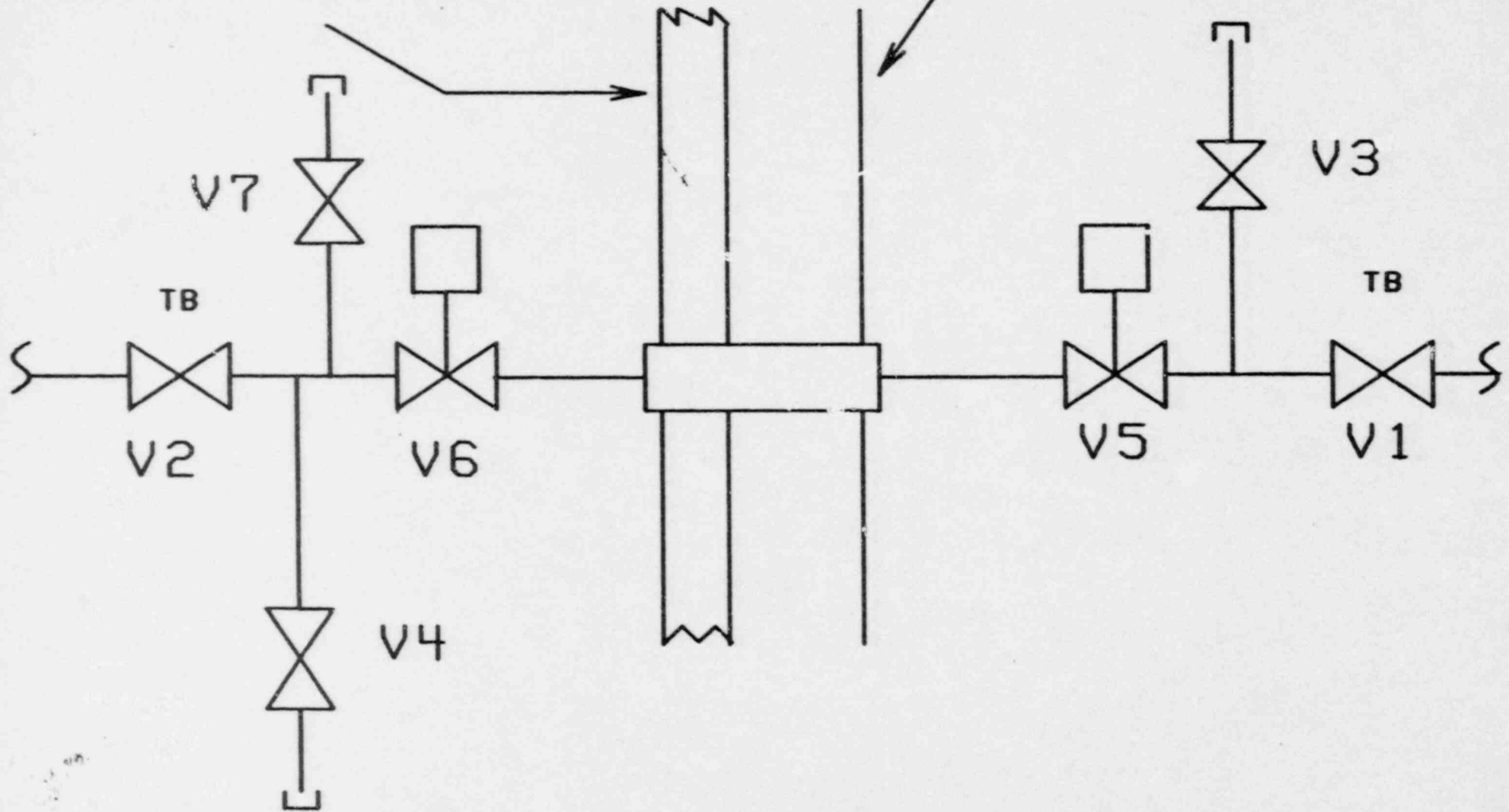
- REQUIRE CONTAINMENT INTEGRITY
- REQUIRE SUSPENSION OF CORE ALTERATIONS, HANDLING OF IRRADIATED FUEL AND OPERATIONS WITH THE POTENTIAL FOR DRAINING THE REACTOR VESSEL IF CONTAINMENT INTEGRITY IS NOT MAINTAINED
- REQUIRE THAT ALL PENETRATIONS REQUIRED TO BE CLOSED DURING ACCIDENT CONDITIONS ARE CLOSED

O REVISED TECHNICAL SPECIFICATIONS

- ALLOW OPENING OF DRAIN AND VENT LINES FOR SURVEILLANCE TESTING
- REQUIRE ADMINISTRATIVE CONTROL OF DRAIN LINE OPENING
- REQUIRE 80 HOURS DECAY BEFORE FUEL MOVEMENT

SHIELD BUILDING

CONTAINMENT



- ° ISOLATE TEST VOLUME BY CLOSING VALVES V1 and V2
- ° OPEN TEST VALVE V3, DRAIN VALVE V4, AND VENT VALVE V7
- ° AFTER DRAINING TEST VOLUME, CLOSE V4
- ° CONNECT TEST APPARATUS TO V3
- ° CLOSE VALVE TO BE TESTED (V5)
- ° CONDUCT LEAK RATE TEST USING INFLOW TEST METHOD
- ° OPEN VALVE V5 AND CLOSE VALVE V6
- ° TEST VALVE V6
- ° RESTORE SYSTEM TO ORIGINAL LINEUP

CURRENT LICENSING BASIS

- FUEL BUILDING - FUEL HANDLING ACCIDENT
 - 123 RODS DAMAGED
 - 24 HOUR DECAY AFTER SHUTDOWN
 - ALL RELEASES OCCUR WITHIN 2 HOURS
 - CREDIT FOR FILTERED RELEASE
 - LPZ DOSES NOT CALCULATED

- CONTAINMENT - FUEL HANDLING ACCIDENT
 - NOT ANALYZED BECAUSE OF LOW CONTAINMENT LEAK RATE

PROPOSED LICENSING BASIS

- FUEL BUILDING - FUEL HANDLING ACCIDENT
 - SAME AS CURRENT BASIS EXCEPT CREDIT FOR 80 HOUR DECAY

- CONTAINMENT - FUEL HANDLING ACCIDENT
 - 125 RODS DAMAGED
 - 80 HOUR DECAY AFTER SHUTDOWN
 - UNFILTERED RELEASE
 - BOUNDING LEAK RATE
 - MIXING IN PRIMARY CONTAINMENT
 - LPZ DOSES CALCULATED

FUEL HANDLING ACCIDENT RADIOLOGICAL EFFECTS

	FUEL BUILDING (rem)	CONTAINMENT BUILDING ⁽¹⁾ (rem)		REGULATORY LIMIT (rem)
		CASE 1	CASE 2	
EXCLUSION AREA BOUNDARY				
THYROID	2.1	1.68	0.34	75 ⁽²⁾
GAMMA	1.3	0.012	2.3x10 ⁻³	6 ⁽²⁾
BETA	2.0	0.017	3.4x10 ⁻³	NOT SPECIFIED
LOW POPULATION ZONE				
THYROID	N/A	2.61	0.18	75 ⁽²⁾
GAMMA	N/A	2.13x10 ⁻³	1.4x10 ⁻³	6 ⁽²⁾
BETA	N/A	3.66x10 ⁻²	2.3x10 ⁻³	NOT SPECIFIED
MAIN CONTROL ROOM ⁽⁴⁾				
THYROID	0.4	0.49	5.5x10 ⁻²	30
GAMMA	0.07	7.0x10 ⁻³	4.0x10 ⁻⁴	5 ⁽³⁾
BETA	3.8	0.45	2.6x10 ⁻²	30

- (1) CASE 1 - UNMITIGATED RELEASE, CASE 2 - TWENTY MINUTE OPERATOR ACTION
- (2) 25% OF 10CFR100 LIMIT
- (3) 10CFR50, APPENDIX A, GENERAL DESIGN CRITERIA 19
- (4) NO CREDIT TAKEN FOR FACTOR OF 4 REDUCTION ALLOWED BY SRP 6.4 FOR DUAL, SELECTABLE AIR INLETS

CONSERVATISMS

	<u>AS USED IN ANALYSIS</u>	<u>REALISTIC</u>
ROD PEAKING FACTOR	1.5	1.0
NUMBER OF RODS DAMAGED	125	104
RADIONUCLIDES RELEASED FROM FUEL		
NOBLE GASES	100%	1.8%
IODINE	10%	0.32%
PARTICULATES	10%	0%
CONTAINMENT UNIDENTIFIED LEAKAGE	0.26%/DAY	0.0%
LEAKAGE FLOWS	58 cfm	0.0
RELEASE PATHWAY	AUX BLDG	SPLIT BETWEEN AUX & FUEL BLDG

NO CREDIT TAKEN FOR:

1. INITIATION OF SGTS
2. ISOLATION OF RELEASE PATHS
3. REDUCTION OF CR DOSES DUE TO DUAL INLETS
4. CONTROL ROOM RECIRCULATION

