



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W., SUITE 2900
ATLANTA, GEORGIA 30323-0199

January 14, 1997

MEMORANDUM TO:

File
John P. Jaudon
Johns P. Jaudon, Director
Division of Reactor Safety

FROM:

SUBJECT:

MINUTES OF THE CRYSTAL RIVER RESTART PANEL
FOURTH MEETING HELD JANUARY 8, 1997

The Crystal River Restart Panel met at the Crystal River site on January 8, 1997. The following Panel members and others were present:

Panel Members:

Johns P. Jaudon, RII, Chairman
Frederick J. Hebdon, NRR, Vice Chairman
Kerry D. Landis, RII
Stephen J. Cahill, RII
Laksminaras Raghaven, NRR

Others:

Robert P. Schin, RII

The Panel noted that the Plant status was cold shutdown (Mode 5) with a steam bubble in the pressurizer. The Senior Resident Inspector advised that there was work in progress on some valves and that a Train (A) outage was scheduled to begin January 13, 1997.

The Chairman pointed out that the licensee had announced several personnel selections, these were:

Roy Anderson as Senior Vice President; he is expected to be onsite in late January and relieve March 3, 1997.

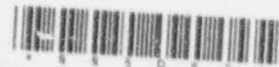
John Cowan as Site Vice President; he is expected onsite by early February 1997.

Dave Kunsemiller as Director of Site Support; he is on site and should relieve by the end of January 1997.

John Holden as Director of Engineering; the onsite date was not known by the board.

The Panel discussed Licensee Event Report 96-22, which reported a potential design issue that potentially could result in the simultaneous failure of circuits both in the control room and the remote shutdown facility. It was reported that the licensee had determined to conduct a broader review of Appendix R issues because of this potential design issues. The NRR Panel members noted that there was a restart item to resolve some Appendix R exemption requests and that action on these requests should be coordinated with review of the licensee's review to assure that the total context of Appendix R issues was understood.

9708210102 970114
PDR ADOCK 05000302
P PDR



IE26
FEES

The Restart Panel noted that FPC was still developing recovery milestones and that the scope of the design changes was not completely finalized in some areas.

There was a lengthy discussion on whether or not the licensee's plan to review past 10 CFR 50.59 reviews of modifications and to develop time lines for the Emergency Diesel Generation system, the Emergency Feedwater system, Building Spray system, Low Pressure Injection system and High Pressure injection system and to perform a failure modes analysis of DC power would get the licensee to a point to conclude that the safety systems at Crystal River met their design basis requirements. The Restart Panel decided to discuss this with the licensee at the public meeting scheduled for January 9 onsite in order to assure that they understood the Panel's concerns in this area.¹

The Restart check list of open items was reviewed. Findings from recent reports were added and characterized. It was further determined that duplicate items, coded as Non Restart because the item was coded as Restart under another classification, should be further coded to show that there was another item on the same subject that was coded restart. This was accomplished and the revised Restart Open Item checklist is enclosed (Attachment A).

The NRR representatives discussed the lack of technical specifications for Low Temperature Overpressure Protection, which is already coded as a Restart item. It was noted that NRR has not yet sent correspondence to the licensee on this subject, although the licensee is aware that the item is on the Restart Open Item Checklist.

The need to schedule available inspection resources effectively was discussed. The Panel decided that the inspection activities of the resident inspectors, the project engineer, and DRS inspectors should be carefully coordinated. Panel members K. Landis and C. Casto, Branch Chiefs from DRP and DRS respectively, were tasked to develop a tentative inspection plan to assure that items ready for inspection were promptly inspected. The due date for this tentative plan is January 23. This plan is to become a living schedule modified as necessary.

Dates for future meetings were scheduled as follows:

In Region II - January 23, 1997 (10:00 am)

At Crystal River - February 12, 1997 (8:00 am)

Attachment: A. Restart Open Item Checklist

Docket 50-302

cc w/att: L. A. Reyes, RA/RII
E. W. Merschoff, ADRA/RII
J. R. Johnson, DRP/RII
S. A. Varga, NRR

¹ This discussion was held January 9, 1997, with FPC at the public meeting.

Attachment A

CRYSTAL RIVER 3 ISSUES CHECKLIST R ITEMS (TO BE INSPECTED BY THE NRC BEFORE RESTART)

Status as of January 13, 1997

The Crystal River Restart Panel met on November 13, 1996, and developed seven general areas under which the restart issues will be grouped. Those seven areas are:

1. Knowledge of design and licensing bases and adequacy of design margin
2. Regulatory knowledge and perspective
3. Operator performance and knowledge
4. Marginally effective engineering organization
5. Management oversight; including quality assurance, self assessment, and corrective action
6. Corrective actions for NRC violations
7. Other

ISSUE	DESCRIPTION	AREA	NRC LEAD	IR/SER	LICENSEE STATUS	COMMENTS	NRC STATUS
LICENSEE'S RESTART LIST OF DESIGN-RELATED ISSUES (D.I.s) (per 10/28/96 ltr from FPC)							
CR3 D.I. 1	HPI pump recirculation to the makeup tank	1	RI		D-1	See URI 96-01-02, IFI 96-17-02, IR 96-12	R
CR3 D.I. 2	HPI system modifications to improve SBLOCA margins	1	RI		D-2	See URI 96-01-02, LER 96-06, IR 96-12	R
CR3 D.I. 3	LPI pump mission time	1	Lenahan/ NRR		D-3	See URI 96-201-01, IR 96-12	R
CR3 D.I. 4	Reactor building spray pump IR NPSH	1	Lenahan		D-4	See URI 96-201-02, IR 96-12	R
CR3 D.I. 5	Emergency feedwater system upgrades and diesel generator load impact	1	Schin		D-5	See URI 96-12-01; EEI 96-12-02, IR 96-12	R
CR3 D.I. 6	Emergency diesel generator loading	1	Fillion		D-6	See EEI 96-12-02, IR 96-12	R
CR3 D.I. 7	Failure modes and effects of loss of DC power	1	Fillion		D-7	See URI 96-12-01, LER 96-07, IR 96-12	R
CR3 D.I. 8	Generic Letter 96-06 (Thermal overpressure protection for Containment piping, penetrations, and coolers)	1	Lenahan/ Crowley		D-8	See IR 96-12	R

ISSUE	DESCRIPTION	AREA	NRC LEAD	IR/SER	LICENSEE STATUS	COMMENTS	NRC STATUS
LICENSEE'S OTHER RESTART ITEMS							
RMG 29/30	Seismic monitoring of HR Rad Monitor	1	Lenahan		D-19		R
BWST NPSH	NPSH concern with ECCS pumps when SFP pumps are running in BWS and Recirc	1	Thomas		D-19		R
FIVE AREA/ OF CONTINUING CONCERN, WITH IPAP RECOMMENDED INSPECTION AND RII RECOMMENDED ADDITIONS							
Management Oversight - IPAP Recommended Inspection	- NRC inspect Problem Identification; focusing on <u>QA audits and the problem reporting system</u> . - Increased inspection of Problem Analysis and Evaluation; focusing on <u>root cause evaluations</u> .	5 QA	Crowley/ Thomas		OP-2, OP-3	Inspect New PC system	R
Marginally Effective Engineering Organization - IPAP Recommended Inspection	- NRC inspect Engineering Problem Identification and Resolution; with emphasis on <u>licensee evaluations for significant issues and work backlogs</u> . - Also inspect Quality of Engineering; with emphasis on <u>10 CFR 50.59 screening and safety evaluations, accuracy of the FSAR, and management oversight</u> .	4	Schin		OP-4 OP-6	50.59	R
Lack of Adequate Knowledge of the Design Basis - IPAP Recommended Inspection	- NRC inspect Engineering Safety Focus; focusing on <u>proper identification of discrepancies with the plant's design basis in the corrective action system</u> . - Also inspect Engineering Problem Identification and Resolution; focusing on <u>programs for identifying design basis issues and capturing them in the corrective action program</u> . - Also inspect Quality of Engineering; focusing on <u>sensitivity/understanding by the engineering/licensing staff of the plant's design basis</u> . - Also assess the <u>design margin</u> , including the licensee's "extent of condition" reviews	1	Schin		OP-7, OP-8, D-13, D-15, D-16		R
Lack of Sensitivity for the Need to Comply With Regulations - IPAP Recommended Inspection	- NRC inspect <u>50.59s, operability, reportability</u>	2	Schin		OP-5, OP-4		R
Operator Performance - IPAP Recommended Inspection	- NRC inspect Safety Focus; focusing on <u>communication within operations, communication with other site groups, and overtime</u>	3	RI				R

ISSUE	DESCRIPTION	ARZA	NRC LEAD	IR/SER	LICENSEE STATUS	COMMENTS	NRC STATUS
INSPECTOR FOLLOWUP SYSTEM							
URI 95-02-02	Control room habitability envelope leakage. Excessive leakage paths through doors, dampers, and drains due to design errors and lack of surveillances/preventive maintenance	1	Schin			See TIA 95003; FPC TS Change Request No. 208 of 8/28/96; LERs 96-04, 94-10, 95-01, 95-04-01, 95-09; IRs 95-02, 95-09, 95-11, 95-16, 95-21; FPC ltr.s. of 5/26/95 and 10/23/95	R
URI 96-01-02	Discrepancies in the high pressure injection design basis analysis	1	RI		D-9	See CR3 D.I. 1; CR3 D.I. 2	R
URI 96-04-01	Discrepancies in the EDBD and the FSAR regarding the prevention of post-LOCA boron precipitation	1	Crowley	IR 96-19		See EEI 96-19-07.	R, C
URI 96-05-02	Design concerns with main steam line hangers used in seismic and other dynamic load applications	1	Lenahan				R
URI 96-06-03	Non-safety related transfer switch used in ES status indicating light circuitry	1	Fillion				R
URI 96-12-01	Emergency Feedwater low NPSH to both pumps due to postulated single failure	1	Schin	IR 96-19	D-17	See CR3 D.I. 5; CR3 D.I. 7; EEI 96-19-03, -04, -05, -06	R, C
URI 96-17-03	Failure to conduct required Technical Specification surveillance testing on safety related circuitry (GL 96-01)	4	Fillion			See MPA #L601 (GL 96-01)	R
URI 96-201-01	Long term plant cooldown following a small break LOCA assuming a single failure in the decay heat drop line	1	Crowley/ NRR		D-3	See CR3 D.I. 3; See IR 96-11. NRR taking responsibility for this item.	R
URI 96-201-02	NPSH for building spray pump has very little margin, and some calculation factors were nonconservative	1	Lenahan		D-4	See CR3 D.I. 4	R
URI 96-201-03	Operating curves 16, 17, and 18 in OP-103B are not validated by licensee	4	Hopper		O-1		R
URI 96-201-04	Nonsafety-related positioners on safety-related valves	1	Thomas		R-7, D-10	See IR 96-08	R
URI 96-201-05	Service water system heat loads did not consider maximum input heat (OP-103B, Curve 15)	1	Crowley	IR 96-19	O-1	See EEI 96-19-08	R, C
URI 96-201-07	EDG not protected against water spray from failure of fire protection deluge system in EDG room	1	Fillion				R
LER 95-13-01	Design deficiency may cause makeup tank vortexing resulting in failure to meet Appendix R requirements	1	Mellan			LER 95-13-00 closed in IR 96-06	R
LER 96-18-00, LER 96-18-01	Failure to verify RB penetrations closed per TS	1	RI		O-2		R
EEI 96-10-01	Four examples of failure to follow refueling procedure FP-203	3	Hopper			**	R
EEI 96-10-02	Failure to assure root cause analysis and corrective actions taken to preclude repetition were adequate after refuel incident (no PR issued)	5	Hopper			**	R

ISSUE	DESCRIPTION	AREA	NRC LEAD	IR/SER	LICENSEE STATUS	COMMENTS	NRC STATUS
EEI 96-12-02	EDG loading USQs due to inadequate 10 CFR 50.59 evaluations; three examples (one modification & two procedure changes)	4	Schin/ Fillion		R-2, D-6, D-14, D-15, OP-5	Enforcement conference 1/24/96. See CR3 D.I. 5; CR3 D.I. 6	R
EEI 96-12-03	Inadequate corrective actions for 10 CFR 50.59 evaluation errors; two examples	5	Schin			Enforcement conference 1/24/96	R
EEI 96-12-04	Use of unverified calculations to support modifications. NRC inspect licensee's extent of condition reviews.	4	Schin		OP-6	Enforcement conference 1/24/96	R
EEI 96-19-01	Three inadequate procedures for containment penetration surveillances	4	RI			Enforcement conference 1/24/96	R
EEI 96-19-02	Inadequate corrective actions for inadequate containment penetration surveillances	1	RI			Enforcement conference 1/24/96	R
EEI 96-19-03	EPW NPSH USQ due to inadequate 10 CFR 50.59 safety evaluation for a modification	1	Schin			Enforcement conference 1/24/96	R
EEI 96-19-04	Failure to update applicable design documents to incorporate EPW design information (EFP-2 assumed operating when EFP-1 trips at 500# RCS pressure)	1	Thomas			Enforcement conference 1/24/96	R
EEI 96-19-05	Failure to include applicable design information in the design input requirements for an EPW modification (EFP-2 continuing to operate after EFP-1 trips at 500# RCS pressure and hydraulic requirements)	1	Thomas			Enforcement conference 1/24/96	R
EEI 96-19-06	EPW USQ due to removing the automatic open signal from ASV-204, reducing the reliability of EFP-2	1	Thomas			Enforcement conference 1/24/96	R
EEI 96-19-07	Inadequate 50.59 evaluation for post-LOCA boron precipitation control	1	Crowley			Enforcement conference 1/24/96. Verify procedures and documentation adequate prior to restart.	R
EEI 96-19-08	Error in design calculations for SW system heat loads	1	Crowley			Enforcement conference 1/24/96	R
EA 95-16 (was EEI 95-02-04)	Use of non-conservative trip setpoints for safety-related equipment (SLIII). Additional examples identified in IR 95-16.	6, 1	Mellan			See IR 95-16, IR 95-21	R
EA 95-126, NOV I.A (was EEI 95-22-01)	Nine instances where operators violated procedures for MUT pressure/level (CLIII).	6, 3	Schin			See IR 96-04	R
EA 95-126, NOV I.B (was EEI 95-22-02)	Conduct of unauthorized tests of MUT without 10 CFR 50.59 evaluation (SLIII). Additional examples (four tests) identified in 1/18/96 letter titled EA 95-126 and EA 96-185). (See URI 96-04-08)	6, 3	Schin			See IR 96-04	R
EA 95-126, NOV I.C.1 (was EEI 95-22-03)	Failure to take adequate corrective actions for operator concerns regarding OP-103B, Curve 8, for MUT pressure/level limits (SLIII)	6, 5	Schin				R
EA 95-126, NOV I.C.2 (was EEI 95-22-03)	Corrective actions for an inadequate Curve 8 (two STI's and a revised Curve 8A & 8B) were also incorrect (SLIII)	6, 5	RI		O-1		R

ISSUE	DESCRIPTION	AREA	NRC LEAD	IR/SER	LICENSEE STATUS	COMMENTS	NRC STATUS
EA 95-126, NOV I.D.1 (was EEI 95-22-04)	Design controls failed to ensure adequate safety margin for HPI pumps for certain LOCA scenarios (SLIII)	6, 1	RI		OP-6		R
EA 95-126, NOV I.D.2 (was EEI 95-22-04)	Swapover of ECCS pumps' suction from BWST (at five feet) to reactor building sump was inadequate (SLIII)	6, 1	RI				R
EA 95-126, NOV II.A (was EEI 95-22-04)	EOPs allowed single LPI pump to supply two HPI pumps, with insufficient head for LPI pump (SLIII)	6, 1	RI				R
EA 95-126, NOV II.B (was EEI 95-22-03)	Failure to take adequate corrective actions for tank volumes/level/suction point (SLIV)	6, 5	RI				R
EA 95-126, NOV II.C (was EEI 95-22-03)	Failure to ensure fire water storage tank contained adequate volume of water (SLIV)	6, 1	RI				R
VIO 93-15-77	Inadequate EOP and AP procedures	6, 3	Hopper		0-3	See IR 96-04, IFI 96-04-03, IR 96-08	R
VIO 95-16-03	Inadequate procedure for operation of the makeup pump 1A cooling water	6, 1	RI				R
VIO 95-21-03	Failure to isolate the class 1E from the non-class 1E electrical circuitry for the RB purge and mini-purge valves	6, 1	Thomas/RI				R
VIO 96-01-01	Inadequate corrective action for HPI flow indication problem	6, 5	RI				R
VIO 96-01-06	Failure to correctly translate design basis of SW system into procedures, drawings, and instructions	6, 1	RI				R
VIO 96-04-02	Failure to take prompt corrective action in revising procedure VP-580, Plant Safety Verification (for STAs). VP-580 contained outdated and incorrect information.	6, 5	Hopper				R
VIO 96-05-01	Failure to create a PR and OCR for damaged main steam line hangars	6, 5	Lenahan, Raghavan				R
VIO 96-05-05	Failure to follow procedures for updating design basis documents	6, 4	Crowley		OP-8		R
VIO 96-05-07	Inadequate receiving inspections for battery chargers (vendor tests)	6, 4	Schin				R
VIO 96-05-08	Failure to follow purchasing procedures for inverters	6, 4	Schin				R
VIO 96-06-02	No procedure for demineralized water flush performed by operators on boric acid addition lines	6, 3	RI				R
VIO 96-06-04	No evaluation on non-FSAR vital battery charger configuration	6, 4	RI				R
VIO 96-06-07	PR not initiated to resolve CREVS test failure	6, 5	Lenahan				R
VIO 96-08-01	Corrective action not taken on make-up system audit findings & excessive vibration on spent fuel pool pump cooling fan motor	6, 5	RI				R

ISSUE	DESCRIPTION	AREA	NRC LEAD	IR/SER	LICENSEE STATUS	COMMENTS	NRC STATUS
VIO 96-09-03	Failure to perform a 10 CFR 50.59 safety evaluation for changes to procedures described in the FSAR for controlling dissolved hydrogen concentration in the RCS	6, 3	Thomas				R
VIO 96-09-04	Failure to update operating curves to reflect 1981 power uprate	6, 4	Thomas				R
VIO 96-09-05	Failure to incorporate design change of MUV-64 into operations procedures	6, 4	Thomas/ Crowley		Licensee Denied Vio		R
VIO 96-09-06	Three examples of design control errors (erroneous calculation inputs and ISI boundary)	6, 4	M. Miller		OP-8		R
VIO 96-09-07	Untimely corrective actions for the EFIC system concerns and problems	6, 5	Thomas				R
VIO 96-11-04	Reactor building sump not constructed in accordance with approved construction drawings	6, 1	RI				R
VIO 96-15-02	Failure of reactor coolant pump oil collection system to retain oil leaking from reactor coolant pump	6, 7	W. Miller				R
IFI 95-15-01	Design requirements for nitrogen overpressure (service water)	1	L. Mellan			Need to review licensee's calculation & conclusion. See IR 95-21	R
IFI 96-03-15	Evaluate the licensee's revised TS Bases and related 10 CFR 50.59 analysis for NPI flow indicators	2	RI				R
IFI 96-17-02	Potential for HPI/LPI recirculation resulting in make-up tank overflow	1	RI			See CRJ D.I. 1	R
IFI 96-17-04	Adequacy of 10 CFR 50 Appendix R fire study and documentation	1	W. Miller				R
IFI 96-201-11	Design basis for decay heat/core flood/reactor coolant piping temperature	1	Lenahan			Identified in IPAP report as IF-96-201-01	R
IFI 96-201-12	Conduit sizing criteria - jamming ratio not considered	1	Fillion			Identified in IPAP report as IF-96-201-02	R
IFI 96-201-13	Cable ampacities - several cables exceed rating, including DHP-1	1	Fillion			Identified in IPAP report as IF-96-201-03	R
IFI 96-201-14	EDG protective trips not bypassed during emergency mode of operation	1	Fillion		D-12	Identified in IPAP report as IF-96-201-04	R
IFI 96-201-15	Verification of motor starting data	1	Fillion			Identified in IPAP report as IF-96-201-05	R
IFI 96-201-16	Coordination of Second level undervoltage relay (SLUR) setting vs. inverter operation	1	Fillion			Identified in IPAP report as IF-96-201-06	R
IFI 96-201-17	Coordination of SLUR and fuse protection	1	Fillion			Identified in IPAP report as IF-96-201-07	R
MULTI-PLANT ACTIONS							
MPA #LS07; GL 95-07	Pressure locking and thermal binding of safety-related gate valves. Currently in staff review. An RAI is outstanding. Expected completion?	2	NRR				R

ISSUE	DESCRIPTION	AREA	NRC LEAD	IR/SER	LICENSEE STATUS	COMMENTS	NRC STATUS
MPA #L601; GL 96-01	Testing of safety-related logic circuits - Licensee response in staff review. More details are required. This issue requires attention.	2	Fillion		R-1	11/96 - the licensee has identified testing deficiencies that must be fixed prior to restart	R
MPA #L503; GL95-03	Circumferential cracking of SG tube flaws. Licensee response in staff review.	2	Blake/NRR				R
LICENSE AMENDMENT/RELIEF REQUESTS							
CCHE	Control complex habitability envelope - Including TIA 95-03 need to be addressed. Licensee submittal does not provide adequate TS action.	2	Schin/NRR				R
OTHER ISSUES							
LTOP	Current TS does not address LTOP prevention or mitigation. On the basis of GL 88-11, the licensee submitted information to demonstrate that LTOP in B&W plants have less than 1 in 100 reactor years probability of occurrence and as a result per GL 88-11 non-appendix G methodology can be used for PT curves. Such a PT curve would provide for higher LTOP enable pressure and temperature and would provide operational flexibility. Staff denied the request in 1995 and requested a revised response. The licensee expects to respond late 1997.	2				R, system branch will send letter to licensee that they have to submit TS.	R
Appendix R	Appendix R design basis issues review by FPC consultant. NRC review open Appendix R issues to assure that there are no restart or operability issues imbedded in them.		W. Miller/ NRR		D-11		R
Operator Workarounds	NRC review operator workarounds list to assure that there are no restart or operability issues contained in them		RI		M-2	See VIO 96-09-07	R
USQs	Licensee request and NRC review and issue license amendments for all Unreviewed Safety Questions (USQs)		NRR		R-2, R-4		R
USQ	EDG Load Uprate		Fillion/ NRR		R-2	See EEI 96-12-02, CR3 D.I. 6	R
USQ	ASV 204		Thomas/ NRR		R-4	See EEI 96-19-04, CR3 D.I. 5	R
USQ	DH-45-FI		Crowley/ NRR		R-5	See URI 96-201-05	R
USQ	EDG Load List Update		Fillion/ NRR		R-6	See EEI 96-12-02, CR3 D.I. 6	R
USQ	ITS 3.0.3 relief for LPI/DH to allow modification of air operators for DCV 17, 18, 177, 178		Thomas/ NRR		R-7	See URI 96-201-04	R
ILRT	Conduct an ILRT or seek an Amendment to utilize Method B of Appendix J to 10 CFR 50		NRR				R
50.54f Letter	NRC review licensee's 50.54f letter response (due 2/9/97) on design bases		NRR				R

ISSUE	DESCRIPTION	AREA	RRC LEAD	IN/SER	LICENSEE STATUS	COMMENTS	RRC STATUS
License Conditions	Verify license conditions are met		RI				R

Sources for issues include: IFS, SIMS, NUREG 1435 (Status of Safety Issues at Licensed Power Plants), Resider.'s OIL, PM's OIL

NOTE: Open allegations, OI investigations, and emerging/draft issues are listed separately.

CRYSTAL RIVER 3 ISSUES CHECKLIST N ITEMS (INSPECTION PRIOR TO RESTART IS NOT NEEDED)

Status as of January 13, 1997

ISSUE	DESCRIPTION	AREA	NRC LEAD	IR/SEER	LICENSEE STATUS	COMMENTS	NRC STATUS
LICENSEE'S RESTART LIST OF DESIGN-RELATED ISSUES (D.1.1)(per 10/28/96 ltr from FPC)							
						DOCUMENT NAME: CRITICAL RECORD COPY 5. OPERATIONAL 200	
LICENSEE'S OTHER RESTART ITEMS							
0156 TIA::	Adequacy of 0156 tube stress-relieved rolled joints is questioned. Back analysis of a Davis-Besse pulled 0156 tube, current test data, and limited field experience conflict with test data from 1972 which "qualified" a stress-relieved rolled joint.	7				See Licensee Precursor Card PC 96-5077 of 1/6/96. (NO TIA)	N (5)
FIVE AREAS OF CONTINUING CONCERN, WITH 19AP RECOMMENDED INSPECTION AND RII RECOMMENDED ADDITIONS							
INSPECTOR FOLLOWUP SYSTEM							
UR1 95-021-04	Excessive cooldown rate	3				See CR3 D.1.1.	N (5)
UR1 96-03-04	Measuring of percent through-wall indications with an unqualified procedure	7				See IR 96-06, Generic Issue being addressed by NRC. (NO TIA)	N (6)
UR1 96-03-05	Eddy current sample expansion based on degraded tube percentages	7				See IR 96-06.	N (5)
UR1 96-06-10	Justification for removal of Thermo-Lag protection from the source range instrumentation	1					N (5)
UR1 96-07-03	Incorrect information provided by contractors	7				**	N (5)
UR1 96-201-06	Preferred offsite electrical power source with plant shut down (500 kv switchyard) is not qualified. Note: Until this issue is resolved, licensee is not using 500 kv switchyard as an electrical power source.	1					N (5)
UR1 96-201-09	Testing of quality relays beyond manufacturers' ratings was inadequate	1					N (5)
LER 93-02-02, LER 93-02-03	Switchyard cable failure caused degraded voltage of Class II electrical buses and actuation of EDG	7				LER 93-02-01 closed in IR 95-09.	N (1)

ISSUE	DESCRIPTION	AREA	NRC LEAD	IR/SER	LICENSEE STATUS	COMMENTS	NRC STATUS
LER 94-06-01, LER 94-06-03, LER 94-06-04, LER 94-06-05	Deficiency in understanding of technical requirements leads to nonconservative RPS setpoint and potential violation of TS	2				LER 94-06-00 closed in IR 95-16. See EA 95-16.	N (0)
LER 95-09-00	Minimal release during sulfur dioxide delivery causes actuation of toxic gas monitor resulting in control room emergency ventilation actuation	7				See IR 95-11.	N (1)
LER 95-10-01	Inadequate procedure causes low cooling water flow to makeup pump resulting in operation outside the design basis	1				LER 95-10-00 closed in IR 95-16. See also URI 95-11-02, VIO 95-16-03.	N (1)
LER 95-17-00	SW flow to control room coolers controlled by air operated valves which could fail open	1				See IR 95-16, VIO 96-01-06.	N (0)
LER 95-18-00, LER 95-18-01, LER 95-18-02	Inadequate TS note allowed delayed entry into 1S LCD	2				See NCV 95-18-05.	N (1)
LER 95-19-00	Leak instrumentation for SW flow to RBCUs incapable of measuring 90 gpm	1				See IR 95-18.	N (1)
LER 95-23-01, LER 95-23-02	Inconsistent design assumptions cause building spray flow rates to be outside design basis	1				LER 95-23-00 closed in IR 96-04.	N (1)
LER 95-25-00, LER 95-25-01	Inadequate isolation of safety/non-safety related circuits	1				See VIO 95-21-03.	N (0)
LER 95-28-00, LER 95-28-01	B&ST vacuum breaker has inadequate relief capacity	1				See IR 95-21.	N (1)
LER 96-01-01	EFIC control circuits misrouted; Appendix R concern	1				LER 96-01-00 closed in IR 96-04. See also NCV 96-01-03.	N (1)
LER 96-02-00	Minipurge valve has safety/non-safety related circuits without isolation	1				See VIO 95-21-03.	N (1)
LER 96-03-00, LER 96-03-01	RCS cooldown rate exceeded during cooldown	3				See URI 95-21-04.	N (1)
LER 96-04-00	CDHE control dampers found damaged & leaking	1				See URI 95-02-02, IR 95-21.	N (0)
LER 96-05-01	SW flow to RBCUs could exceed design	1				LER 96-05-00 closed in IR 96-04. See also VIO 96-01-01.	N (0)
LER 96-06-00, LER 96-06-01	HPI instrument error could result in HPI pump runout	1				See IR 95-20, IR 96-04, CR3 D.I. 2.	N (0)
LER 96-07-00, LER 96-07-01	HPI line SBLOCA/LOOP/loss of dc bus could have inadequate HPI flow instrumentation	1				See IR 96-01, CR3 D.I. 2.	N (0)
LER 96-08-00	Ambiguous TS note results in not performing RCS leak surveillance prior to Mode 2	2					N (5)
LER 96-09-00	Failure to reattach instrument tubing to seismic supports after modification leads to operation outside design basis	1				See URI 96-03-06, IR 96-05.	N (1)
LER 96-10-00	Low flow in SW system cooled components causes operation outside design basis	1				See VIO 95-16-03.	N (0)
LER 96-11-00	Personnel error causes testing deficiency resulting in condition prohibited by improved TS (GL 96-01 issues)	1				See MPA #L601 (GL 96-01).	N (0)

ISSUE	DESCRIPTION	AREA	NRC LEAD	IR/SER	LICENSEE STATUS	COMMENTS	NRC STATUS
LER 96-12-00, LER 96-12-01, LER 96-12-02	Operation outside design basis caused by battery chargers having inadequate test results accepted in error	4				See VIO 96-05-07.	N (D)
LER 96-13-00	Operator error resulted in the inadvertent actuation of DCP-1A	3				See NCV 96-03-02.	N (I)
LER 96-15-00	Personnel errors cause cable separation/isolation concerns resulting in operation outside the design basis (toxic gas monitors)	1				See IR 96-04.	N (I)
LER 96-16-00	CREVS filter testing did not meet TS specs	2	RI				N (S)
LER 96-19-00	Non-safety related switch used in safety related wiring for ES status lights	1				See URI 96-06-03.	N (D)
LER 96-20-00	Unreviewed safety questions concerning EDG overloading caused by interpretation of regulatory requirements	4			R-2, D-6, D-14, D-15, OP-5	See EEI 96-12-02.	N (D)
LER 96-23-00	Personnel error leads to missed surveillances resulting in violation of Technical Specifications (missed remote shutdown panel EFW pump pressure instrument channel check)	2				See VIO 96-15-01.	N (D)
LER 96-24-00	Plant modification causes unanalyzed condition regarding emergency feedwater	1				See URI 96-12-01.	N (D)
LER 96-25-00	Personnel error causes testing deficiency resulting in condition prohibited by Technical Specifications (12 contacts in ES logic were not being tested)	1				See MPA #L601 (GL 96-01).	N (D)
VIO 94-25-01	Failure to properly control the Control Complex Habitability Envelope (door blocked open for maintenance work)	6, 7				See URI 95-02-02.	N (D)
VIO 94-27-02	Failure to make two 10 CFR 50.73 reports to the NRC within the required time	6, 2			OP-4	See IR 95-02, IR 95-08.	N (I)
VIO 94-27-03	Failure to make one required 10 CFR 50.72 report to the NRC within the required time	6, 2			OP-4	See IR 95-08.	N (I)
VIO 96-01-05	Two examples of failure to update FSAR as required by 10 CFR 50.71(e)	6, 4					N (S)
VIO 96-02-01	Failure to maintain 0.2 footcandles in the protected area	6, 7				See IR 96-07.	N (S)
VIO 96-02-04	Failure to maintain secondary alarm station operable and inadequate compensatory measures	6, 2					N (S)
VIO 96-03-11	Failure to follow radiation work permit requirements	6, 7					N (S)
VIO 96-03-12	Failure to report the transport of a radioactively contaminated individual offsite	6, 2					N (S)
VIO 96-03-13	Unescorted visitor personnel within the protected area	6, 7					N (S)
VIO 96-05-04	Licensee approved eddy current acceptance criteria different from TS requirements	6, 2					N (S)
VIO 96-06-06	Failure to timely notify the NRC of a condition outside the Appendix R Licensing design basis	6, 2					N (S)
VIO 96-07-01	Failure to protect safeguards information	6, 7					N (S)

ISSUE	DESCRIPTION	AREA	NRC LEAD	IR/SER	LICENSEE STATUS	COMMENTS	NRC STATUS
VIO 96-07-02	Failure to complete screening elements for Fitness for Duty Personnel	6, 7					N (S)
VIO 96-09-01	Failure to follow a maintenance procedure resulting in the inadvertent initiation of the control room emergency ventilation system	6, 7					N (S)
VIO 96-09-02	Unescorted visitor personnel within the protected area	6, 7					N (S)
VIO 96-11-01	Inadequate work instructions to prevent the inadvertent start of the A EDG	6, 7					N (S)
VIO 96-11-03	Personnel performing work on the reactor building sump without logging onto a clearance, as required by approved WR	6, 7					N (S)
VIO 96-15-01	Failure to perform a required TS surveillance for the remote shutdown panel	6, 2					N (S)
IFI 94-18-09	Review periodic verification plans - MOV (GL 89-10 item)	2				See IR 95-11, IR 95-21; See GL 89-10	N (I)
IFI 95-02-05	Resonance noise in vicinity of MOV-25	7					N (S)
IFI 95-08-03	Emergency Operating Procedure update program	3				See IR 95-16, VIO 93-16-07	" (S)
IFI 95-11-01	SCBA requirements for personnel during a toxic gas release	2					N (S)
IFI 95-15-02	Design requirements for dynamic LOCA effects	1				See IR 95-21 and TIA 96-013	N (S)
IFI 95-15-03	Design requirements for reactor coolant pump cooler failure	1				See IR 95-21 and TIA 95-014	N (S)
IFI 95-15-04	Code requirement for thermal relief valves on decay heat removal heat exchangers	1				See IR 95-21 and TIA 96-014	N (S)
IFI 95-15-05	Relief valves removed from heat exchangers	1				See IR 95-21 and TIA 96-014	N (S)
IFI 95-21-02	Modification to the standby feedwater pump recirculation line	1					N (S)
IFI 96-03-16	Review of MAR 96-02-09-01, HPI flow indicators, installation package and functional testing results	1					N (S)
IFI 96-04-03	Effect of setpoint calculations on EOP revisions	1				See VIO 93-16-07	N (D)
IFI 96-05-06	Large break loss of coolant analysis generic concerns	1					N (S)
IFI 96-06-09	Deficiencies in Westinghouse fire barrier program procedures and documentation	4		IR 96-15			N (S), C
IFI 96-08-02	Reactor building cavity cooling piping thermal relief protection	1				See D.I. 8, GL 96-06	N (D)
IFI 96-15-03	Actions taken to resolve post-accident recriticality concerns due to localized boron dilution	1				NRR reviewing, generic B&W issue	N (G)

ISSUE	DESCRIPTION	AREA	NRC LEAD	IR/SER	LICENSEE STATUS	COMMENTS	NRC STATUS
MULTI-PLANT ACTIONS							
MPA #B105; GL 87-02	Seismic qualification of equipment. Licensee's criteria and procedures approved. Some issues are pending and would be resolved thru audit (scheduled for Mar 97). Licensee's field walkdown results are currently in staff review.	2				Expected completion December.	N (S)
MPA #B111 (IPE); MPA#B118 (IPEEE)	IPE and IPEEE - These are in staff review. Not a restart item.	2					N (S)
MPA #X602; NRCB 96-02	Movement of heavy loads over spent fuel pool - Licensee response in staff review. This would not be a restart issue.	2					N (S)
MPA #L208; GL 92-08; BU 92-01	Therwlog - Licensee plans to use Mecatiss (an alternate material), some reanalysis of APPENDIX R, and some exemption. Fire barrier tests of Mecatiss including Ampacity tests are in staff review. This also may not be restart issue.	2				See IR 96-01; IR 96 16	N (S)
MPA# L201; GL 92-01 Rev 1, Supp 1	Reactor vessel structural integrity. RAI to licensee on 7/22/96. Only a data base issue, not a restart item.	2					N (S)
MPA #L604; GL 96-04	Boraflex degradation. Licensee response is just in. Staff review to commence. This may have to be addressed prior to restart because of sensitivity to spent fuel pool issues.	2					N (S)
MPA GL 89-10	MOV testing & surveillance. This item is closed with the exception of IFI 94-18-09 on periodic verification, which is to be followed up after a new generic communication is issued.	-				See IFI 94-18-09	N (I)
LICENSE AMENDMENT/RELIEF REQUESTS							
R.G. 1.97 Instruments	RG 1.97 Instrumentation - Sup. monitors etc - category change. License amendment may be approved by [redacted]	2					N (S)
Biometrics & Security	Bionetric exemption to allow biometric security badges offsite - Staff review is expected to be complete soo.	2					N (S)
Core Flood Nozzle	Relief request RE: Core flood nozzle - Staff needs more info. PM will keep RII informed.	2					N (S)
OTSG Tubes	OTSG tube testing - Licensee proposed a revised OTSG tube acceptance criteria.	2				See VIO 96-05-04	N (S)
OTHER ISSUES							
Pressurizer Nozzle Flaw	During Refuel 9 a sub-surface flaw was discovered. The licensee performed better inspection during R10 and found the flaw to be acceptable. The new inspection results in reduced flaw size and consequently acceptance criteria (which is based on ratio of flaw to thickness) changes. Staff review in progress.	2					N (S)
RC Loop Piping Analyses	In a survey inspection, the staff noted that certain branch pipes off the primary coolant loop were not analyzed as Code Class 1 pipe (i.e., no fatigue analysis) as required by the code. Need NRR technical branch's opinion on this.	2					N (S)

ISSUE	DESCRIPTION	AREA	NRC LEAD	IR/SER	LICENSEE STATUS	COMMENTS	NRC STATUS
Criticality Monitor	The licensee did not carry a previously approved exemption from part 70 (70.24?) requirements to Part 50 license. Need legal interpretation of the status of the exemption.	2					N (S)

Sources for issues include: IFS, SIMS, NUREG 1435 (Status of Safety Issues at Licensed Power Plants), Resident's OIL, PM's OIL

NOTE: Open allegations, OI investigations, and emerging/draft issues are listed separately.

LIST OF ACRONYMS USED

AP	Abnormal Operating Procedure
BWST	Borated Water Storage Tank
C	Closed
CCHE	Control Complex Habitat
CFR	Code of Federal Regulation
CR3 D.I.	Crystal River 3 Design
CREVS	Control Room Emergency Ventilation System
EA	NRC Escalated Enforcement Action
EDBD	Engineering Design Basis Document
ECCS	Emergency Core Cooling System
EDG	Emergency Diesel Generator
EEI	NRC Escalated Enforcement Item
EOP	Emergency Operating Procedure
FSAR	Final Safety Analysis Report
GL	NRC Generic Letter
ILRT	Integrated Leak Rate Test (of the Reactor Building)
IFI	NRC Inspector Followup Item
LER	Licensee Event Report
LOCA	Loss of Coolant Accident
LPI	Low Pressure Injection
LTOP	Low Temperature Overpressure Protection
MPA	NRC Multi-Plant Action
MUV	Makeup Valve
N (D)	Not an NRC Restart Item (because the issue is duplicated by a restart item)
N (G)	Not an NRC Restart Item (because it is a generic issue affecting multiple operating plants and is being addressed by NRR)
N (I)	Not an NRC Restart Item (because previous inspection of the issue is adequate for restart)
N (S)	Not an NRC Restart Item (because resolution of the issue is not needed for safe restart)
NOV	NRC Notice of Violation
NPSH	Net Positive Suction Head

OCR	Operability Condition Report
OP	Operating Procedure
PR	Problem Report
R	NRC Restart Item
RB	Reactor Building
RCS	Reactor Coolant System
RMG	Radiation Monitor
SFP	Spent Fuel Pool
TIA	NRC Task Interface Agreement (between NRC offices)
TS	Technical Specifications
URI	NRC Unresolved Item
USQ	Unreviewed Safety Question
VIO	NRC Violation

OFFICIAL RECORD COPY DOCUMENT NAME: S:\DRS\EB\CRISSUE1.350