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Engineering managers are required by NEP-121 to determine if new, revised, or temporary changes to procedures affect job functions of their personnel. Managers will communicate change information appropriately and provide documentation of any training conducted to the Engineering Training Coordinator.

NO ACKNOWLEDGEMENT REQUIRED

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A045

FLORIDA POWER
CRYSTAL RIVER UNIT 3
PLANT OPERATING MANUAL

EM-225C

POST ACCIDENT MONITORING OF REACTOR BUILDING TEMPERATURE

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1.0 PURPOSE

The purpose of this procedure is to provide guidance to the TSC Accident Assessment Team to monitor and take action to ensure Reactor Building (RB) temperatures remain below the qualified threshold limits for environmentally qualified components. If temperatures approach a predetermined limit, then actions will be taken to reduce RB temperatures to acceptable values.

2.0 REFERENCES

2.1 Developmental References

- 2.1.1 ITS 3.6.5 Containment Air Temperature
- 2.1.2 Environmental and Seismic Qualification Program Manual
- 2.1.3 IOC NOE 97-2534, Assessment to support EM-225C for SBLOCA EQ Concerns, dated 12/4/97
- 2.1.4 Calculation M-97-0072, CR-3 Containment Analysis for SBLOCA, Rev. 2
- 2.1.5 PC 97-7607
- 2.1.6 IOC NSM 98-0592, Close out of the DR/JCO related to PC 97-7607 - RB EQ Temperatures from a SBLOCA event, dated 4/2/98
- 2.1.7 Calculation M-97-0132, CR3 Containment Analysis, Rev. 6
- 2.1.8 PC 00-0830, Enclosure 1 curve in EM-225C appears to be incorrect, dated 3/16/00
- 2.1.9 Calculation M-90-0021, Building Spray and Decay Heat NPSH, Rev. 11

3.0 PERSONNEL INDOCTRINATION

3.1 Definitions

None

3.2 Responsibilities

The TSC Accident Assessment Team is responsible for monitoring RB temperatures post accident, and to provide recommendations to the Emergency Coordinator to initiate building spray if temperatures reach the limits established in this procedure.

3.3 Limits And Precautions

- 3.3.1 Large break LOCAs and larger small break LOCAs will result in RB Pressures that actuate building spray automatically. Actions to manually start building spray to reduce RB temperatures will not be required in these situations.
- 3.3.2 Prior to starting any ES powered component, adequate load margin must be available if the ES 4160 volt busses are energized from the emergency diesel generators.

3.3.3 Prior to starting a building spray pump, building spray flow control valves must be set for 1200 gpm if ECCS suction has been transferred to the RB Sump.

3.3.4 If a SGTR is in progress then ensure adequate RB sump level is available prior to transferring or starting a BS pump from the RB Sump. With a SGTR, sufficient RB sump level might not be available due to loss from the SGTR. Reference calculation M-90-0021 for BSP NPSH requirements.

4.0 INSTRUCTIONS

4.1 IF at least one building spray pump is running,
THEN exit this procedure. No further action is required.

4.2 IF an RCS leak is occurring in the reactor building,
THEN begin plotting average RB temperature on Enclosure 1 for at least 1 hour intervals in the beginning of the event. The plotting interval can be changed based on plant conditions.
4.3 RB Temperature is the average of the following four temperature elements:

TEMPERATURE ELEMENT	CONTROL ROOM RECORDER	RECALL POINT	COMPUTER POINT	RB ELEV.
AH-536-TE	AH-536-TIR	RECL-77	S358	102
AH-537-TE		RECL-78	S359	125
AH-538-TE		RECL-80	S382	180
AH-539-TE	↓	RECL-81	S383	235
AVERAGE			S837	

4.4 IF average RB Temperature is in the "Acceptable" Region of Enclosure 1 and decreasing,
THEN exit this procedure.

4.5 IF at any time average RB temperature reaches "Action Required boundary" region of Enclosure 1,
THEN obtain Emergency Coordinator concurrence to start at least one building spray pump.

4.6 IF a building spray pump is required and EC concurrence has been obtained,
THEN perform the following:

4.6.1 Ensure load is available on the emergency diesel generators per EOP-13, Rule 5.

4.6.2 Ensure Building Spray flow controls are set at 1500 GPM and "Remote" if pumps are aligned to BWST, or 1200 GPM and "LOCAL" if aligned to the RB Sump.

4.6.3 Notify the control room to start one building spray pump.

4.7 Continue to monitor RB Temperature.

- 4.8 IF RB Temperature does not lower to the acceptable region of Enclosure 1,
THEN notify control room to start a second building spray pump if available.

NOTE

If building spray pumps are running, Emergency Operating Procedures provide guidance to secure them.
If building spray pumps are secured, begin additional monitoring of RB Temperatures until a continuing decreasing trend is achieved.

- 4.9 WHEN building spray pumps are running,
THEN exit this procedure.

5.0 FOLLOW-UP ACTIONS

None

EM-225C
Limiting RB Temperature

