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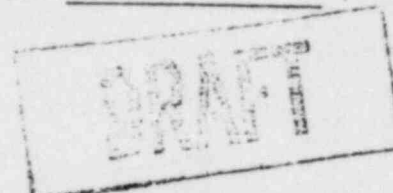
SP Number 29.023.05

Approved: _____
(Plant Manager)

Revision: F

Effective Date _____

RAPID RPV DEPRESSURIZATION
EMERGENCY PROCEDURE



1.0 PURPOSE

The purpose of this procedure is to rapidly depressurize the RPV to allow injection systems to inject and restore RPV water level to an acceptable level above TAF.

2.0 ENTRY CONDITIONS

This procedure is entered from the following Emergency Procedures:

2.1 SP 29.023.03 (Containment Control) when:

- 2.1.1 Suppression Pool temperature and RPV pressure cannot be maintained below the heat capacity temperature limit.
- 2.1.2 Drywell temperature near the cold reference leg instrument vertical runs has increased to the RPV saturation limit.
- 2.1.3 Drywell temperature cannot be maintained below 296°F.
- 2.1.4 Suppression Pool Water Level cannot be maintained above the heat capacity level limit.

2.2 SP 29.023.04 (Level Restoration) when:

- 2.2.1 RPV water level cannot be determined and at least one normal injection or alternate injection subsystem is lined up with at least one pump running.
- 2.2.2 RPV water level is increasing, RPV pressure is between 110 psig and 333 psig and is increasing, HPCI and RCIC are not available.
- 2.2.3 RPV water level is increasing, RPV pressure is less than 110 psig and RPV pressure is increasing.
- 2.2.4 RPV water level is decreasing, RPV pressure is greater than 333 psig, CRD is not operating and at least two injection subsystems are lined up for injection with pumps running.
- 2.2.5 RPV water level is decreasing, RPV pressure is less than 333 psig, any injection or alternate injection subsystem is lined up with pumps running and RPV pressure is increasing.

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- 2.2.6 RPV water level is decreasing, RPV pressure is greater than 333 psig and low pressure injection subsystems or alternate injection subsystems are lined up for injection with at least one pump running.

3.0 OPERATOR ACTION

CAUTION

Do not depressurize the RPV below 110 psig unless motor driven pumps sufficient to maintain RPV water level are running and the systems are available for injection.

CAUTION

NPSH requirements for pumps taking a suction for the Suppression Pool require a minimum level of 14 feet.

CAUTION

Cooldown rates greater than 100°F/hr may be required to accomplish steps 3.1, 3.2, OR 3.3.

3.1 Open all ADS valves.

3.2 IF not all ADS valves can be opened,

THEN open other SRV's until a total of 7 valves are open.

CAUTION

Defeating isolation interlocks may be required to complete step 3.3.

3.3 IF less than 3 SRV's can be opened,

THEN rapidly depressurize the RPV using one or more of the following systems.

3.3 NOTE

Use in the order which will minimize radioactive release to the environment.

_____ 3.3.1	RCIC	3.3.1	Ref. SP 23.119.01 (Reactor Core Isolation Cooling (RCIC) System)
_____ 3.3.2	HPCI	3.3.2	Ref. SP 23.202.01 (High Pressure Coolant Injection)
_____ 3.3.3	Main Turbine Bypass Valves	3.3.3	Ref. SP 22.005.01 (Shutdown to Cold Shutdown)
_____ 3.3.4	Steam Jet Air Ejectors	3.3.4	Ref. SP 23.701.01 (Condenser Off-Gas Removal)
_____ 3.3.5	RFPTS	3.3.5	Ref. SP 23.109.01 (Feed Water System)
_____ 3.3.6	Steam Seal Evaporator	3.3.6	Ref. SP 23.124.01 (Steam Sealing)
_____ 3.3.7	Main Condenser Deaerating Steam	3.3.7	Ref. SP 23.103.01 (Condensate)
_____ 3.3.8	RPV Head Vent		
_____ 3.3.9	Main Steam Line Drains	3.3.9	Ref. SP 23.116.01 (Main and Auxiliary Steam)
_____ 3.3.10	RWCU (Blowdown Mode)	3.3.10	Ref. SP 23.701.01 (Reactor Water Cleanup System)

3.4 IF suppression chamber pressure cannot be maintained below the pressure suppression limit (Fig. 1)

OR

- RPV water level cannot be determined

OR

Temperature near the cold reference leg instrument vertical runs reaches the RPV saturation limit (Fig. 2)

THEN proceed to SP 29.023.09
(RPV Flooding)

3.5 IF suppression chamber pressure can be maintained below the pressure suppression limit (Fig. 1)

AND

RPV water level can be determined

AND

Temperature near the cold reference leg vertical runs is below the RPV saturation limit (Fig. 2)

THEN proceed to SP 29.023.01
(Level Control) step 3.2.

3.4 NOTE
Drywell cold reference leg temperature instruments are (later)

4.0 REFERENCES

- 4.1 SP 29.023.03 Containment Control
- 4.2 SP 29.023.04 Level Restoration
- 4.3 SP 29.023.09 RPV Flooding
- 4.4 SP 22.005.01 Shutdown to Cold Shutdown
- 4.5 SP 23.119.01 Reactor Core Isolation Cooling (RCIC) System
- 4.6 SP 23.202.01 High Pressure Coolant Injection

- 4.7 SP 23.121.01 Residual Heat Removal (RHR) System
- 4.8 SP 23.701.01 Condenser Off Gas Removal
- 4.9 SP 23.124.01 Steam Sealing
- 4.10 SP 23.103.01 Condensate
- 4.11 SP 23.109.01 Feedwater System
- 4.12 SP 23.709.01 Reactor Water Cleanup System

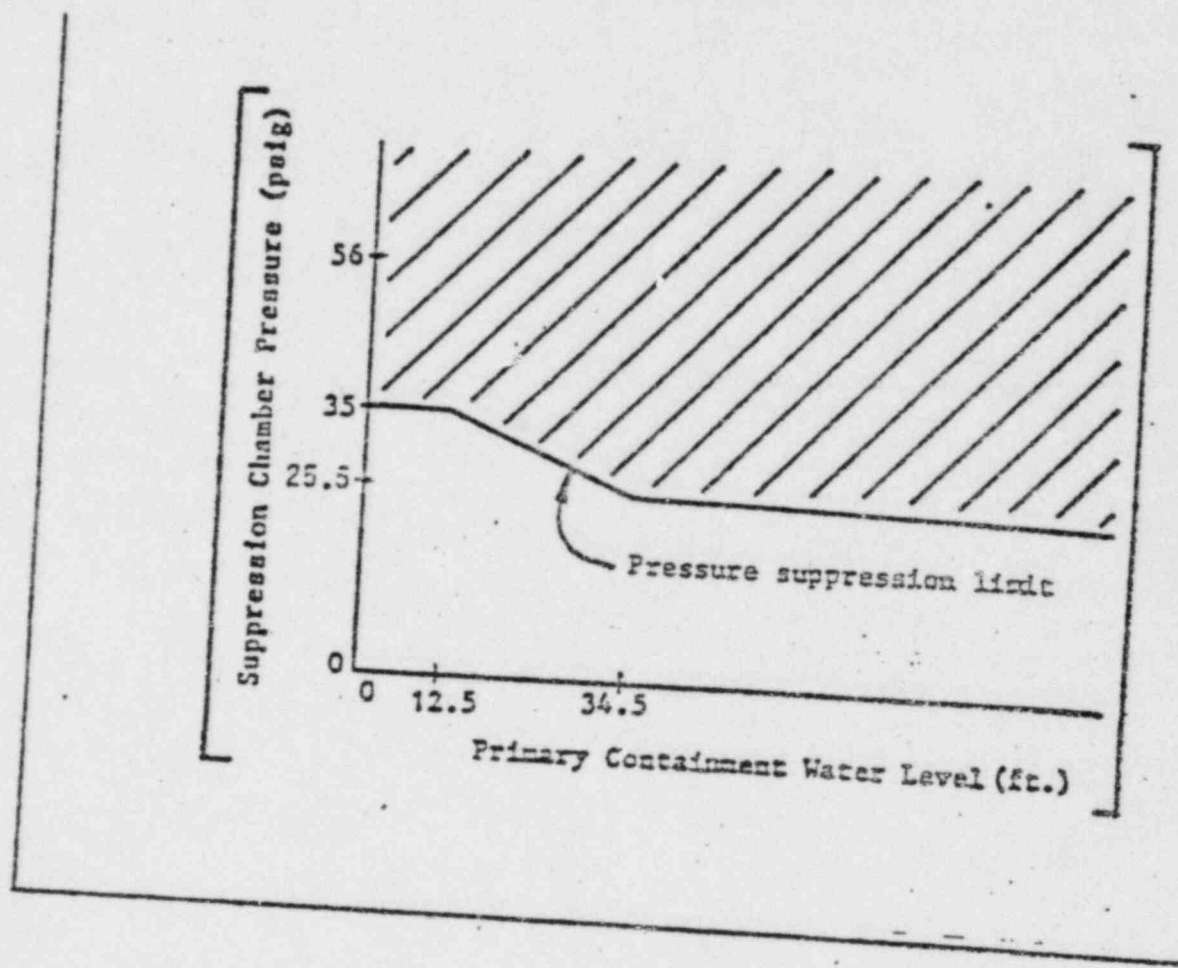


FIG 1

SAMPLE

FIG WILL BE AVAILABLE WHEN THE CALCULATIONS
ARE COMPLETE

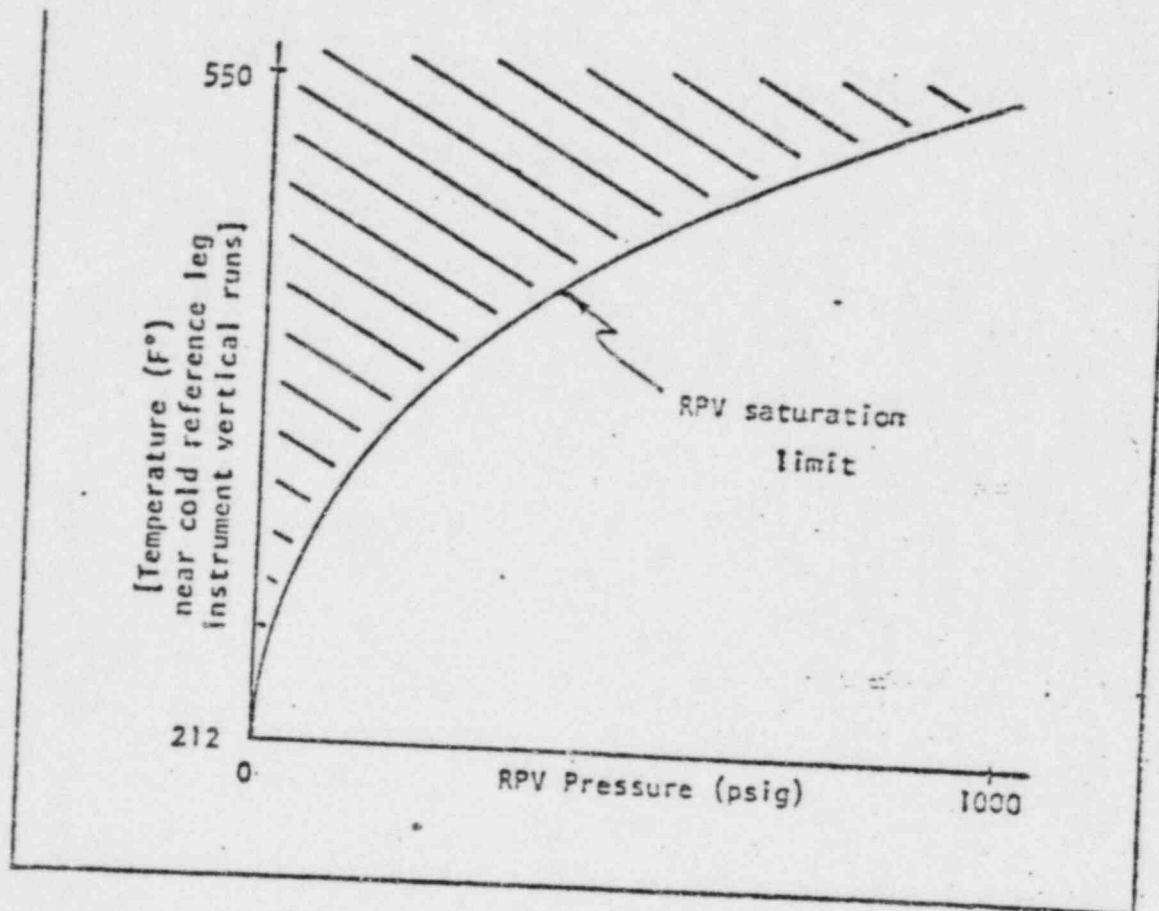


FIG 2

SAMPLE

FIG WILL BE AVAILABLE WHEN THE CALCULATIONS ARE
COMPLETE