

Power Reactor

Event # 41607

Site: MILLSTONE				Notification Date / Time: 04/17/2005 09:23 (EDT)		
Unit: 3		Region: 1		State : CT		Event Date / Time: 04/17/2005 08:42 (EDT)
Reactor Type: [1] GE-3,[2] CE,[3] W-4-LP				Last Modification: 04/17/2005		
Containment Type: MARK I DRY AMB DRY SUB						
NRC Notified by: MICHAEL GOBELI				Notifications: SAM COLLINS RA		
HQ Ops Officer: JOHN KNOKE				TIM MCGINTY IRD		
Emergency Class: ALERT				JIM DYER ET		
10 CFR Section:				R1 BLAST DIAL		
50.72(a) (1) (i)		EMERGENCY DECLARED		E. BRENNER PAO		
50.72(b)(2)(iv)(A)		ECCS INJECTION		THOMAS NRC		
50.72(b)(2)(iv)(B)		RPS ACTUATION - CRITICAL				
50.72(b)(3)(iv)(A)		VALID SPECIF SYS ACTUATION				
Unit	Scram Code	RX Crit	Init Power	Initial RX Mode	Curr Power	Current RX Mode
3	A/R	Yes	100	Power Operation	0	Hot Standby

ALERT DECLARED DUE TO UNIT 3 MAIN STEAM RELIEF VALVES NOT RESEATING AFTER ACTUATION

At 09:23 the licensee indicated that several Main Steam Relief Valves lifted and stayed open. A high pressure flow signal from the secondary Steam Generator caused initiation of Unit 3 Safety Injection, which in turn caused the Reactor to trip. All rods fully inserted as required. Activation of the Safety Injection subsequently caused the Pressurizer level to go solid. About 30 minutes into the event the primary Reactor Coolant and Main Steam Systems stabilized, including the Pressurizer level and pressure. During the initial briefing, about 09:35, the licensee reported that all secondary Safety Relief Valves have resealed. Decay heat is being directed to the Atmospheric Dumps due to the Main Condenser not being available. The licensee is attempting to establish ERDS.

Initial assessment of this incident is believed not to be security related, however, follow-up is being conducted to verify same. At 09:48, NRC management made a decision to enter into Monitoring Mode. At about 11:15 the licensee indicated that a valve in the Charging System indicated some leakage, therefore it was isolated. Licensee stated that no radiological releases and no S/G tube leakage was indicated.

Licensee notified State and local emergency response agencies. They will notify the NRC Resident Inspector.

Notified DHS (Doyle), FEMA (Biscue), DOE (Smith), USDA (Magners), and HHS (Hogan).

*** UPDATE FROM D. DODSON TO W. GOTT 1328 EDT 04/17/05 ***

"At approximately 0830 on April 17, 2005 Millstone Unit 3 experienced an automatic reactor trip from full power. The Reactor is in a stable shutdown condition and is proceeding to Mode 5 cold shutdown. No release of radioactivity other than those minor releases associated with normal plant operation has occurred. There were no personnel injuries associated with the event.

"In addition to the Reactor Trip, half-train Safety Injection (SI) and half-train Main Steam Isolation (MSI) actuations

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occurred. Control room personnel were successful at manually initiating full SI and MSI. SI has since been terminated and RCS pressure control has been restored. Multiple steam line safety valves (MSSV) lifted with at least one MSSV indicating a failure to reclose. As a result, an ALERT was declared at approximately 0853 due to the failure of at least one MSSV failing to reclose. All MSSVs are currently closed. Auxiliary Feedwater (AFW) actuated automatically as expected, however, the turbine driven auxiliary feedwater pump (TDAFWP) tripped on start-up and was subsequently reset locally. Both motor driven auxiliary feedwater pumps (MDAFWPs) operated as expected to maintain steam generator water levels. Due to the additional inventory injected to the Reactor Coolant System (RCS) as a result of the SI actuation, the pressurizer filled and a primary system safety valve (PSSV) actuated at a lower than expected pressure. All PSSVs are currently closed, however, there is indication of leakage past either a PSSV or Pilot Operated Relief Valve (PORV). Upon alignment of the Charging system to Refueling Water Storage Tank recirculation flow path, 2 valves had indication of packing leakage. Those packing leaks have been terminated.

"The cause of the event is under investigation."

The licensee has issued a press release. The licensee will notify the NRC Resident Inspector. Notified R1 DO (J. White) and IRD Manager (T. McGinty)

*** UPDATE FROM D. DODSON TO W. GOTT AT 1915 ON 04/17/05 ***

"The previously reported time of the Alert declaration should be corrected to read 08:42. Millstone Unit 3 entered Mode 4 [Hot Shutdown] at approximately 19:03 on April 17, 2005. The event at Millstone Unit 3 was terminated at 19:05. The cause of the event is under investigation. A recovery plan is being formulated."

Internal NRC notifications, DHS (Frost), NRC/EPA (Threatt), FEMA (Erwin), DOE (Morone), USDA (Smeltzer), HHS (Desi)

The licensee will notify the NRC Resident Inspector.

At 23:45 the Agency exited Monitoring Mode and entered into Normal Mode.

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04/27/2005

Event Response Mode and Emergency Class Log

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Event: 41607 **Type:** POW **Notify Date / Time:** 4/17/05 09:23 EDT

Site: MILLSTONE **Retract:** **Event Date / Time:** 4/17/05 08:42 EDT

Data Type **Classification** **Entry Date/Time** **Exit Date/Time**

EMERGENCY_CLASS	ALE	4/17/05	08:42	4/17/05	19:05
RESPONSE	MONITORING	4/17/05	09:48	4/17/05	23:45

!!! This is a draft document; do not release to the public !!!

Event: 41607	Type: POW	Notify Date / Time: 4/17/05 09:23 EDT
Site: MILLSTONE	Retract: <input type="checkbox"/>	Event Date / Time: 4/17/05 08:42 EDT

Entry Date Entry Time Timeline Text

Entry Date	Entry Time	Timeline Text
17-Apr-05	08:29	Reactor Trip and Safety Injection (SI). MSIVs closed. Several main steam safety valves (MSSV) lifted. Primary safety lifted and then reset.
17-Apr-05	08:42	Millstone 3 declared an Alert.
17-Apr-05	09:53	NRC entered Monitoring Mode.
17-Apr-05	09:53	NRC requests licensee to initiate ERDS.
17-Apr-05	10:10	Dominion having difficulty in establishing ERDS.
17-Apr-05	10:54	AFW turbine started then tripped and then restarted manually. Feeding with three aux feed pumps.
17-Apr-05	11:05	No evidence of tampering. Established normal charging (pressurizer level 64%). Dominion staffing EOF. Pressure control using Atmospheric Steam dump bypass valves.
17-Apr-05	11:32	PRT level slowly rising indicating primary system leakage from either Pressurizer or PORV.
17-Apr-05	12:25	A, B, and C Steam Generator sampled - no primary to secondary leakage. Tail pipe temps on PORV 220 and steady. Dominion believes leakage from the PZR safety not PORV.
17-Apr-05	12:53	State of CT and NY EOCs staffed.
17-Apr-05	15:30	Cooling down to hot shutdown. Millstone issues second press release.
17-Apr-05	16:40	Still no sample for D S/G.
17-Apr-05	22:00	Containment cooling restored.
17-Apr-05	08:30	As part of SI, chilled water to containment was isolated. Due to the loss of containment cooling, containment pressure slowly increased.
17-Apr-05	11:17	Dominion issues press release.
17-Apr-05	15:15	Millstone has stopped cooldown using D S/G because they have not been able to sample.
17-Apr-05	15:20	Secured C and D RCPs.
17-Apr-05	16:00	3 gpm leak from PORV into PRT.
17-Apr-05	17:07	CBS media inquiry. Transferred to Region 1.
17-Apr-05	17:24	Millstone feels it will be in Hot standby (Mode 4) by the LCO time limit. The initiating event has been cleared for some time. They are considering securing from the Alert.
17-Apr-05	17:26	Source of water going to PRT is still not known.
17-Apr-05	14:00	Commissioner Assistant brief
17-Apr-05	19:03	Reactor in Mode 4.
17-Apr-05	19:05	Licensee terminated the Alert.
17-Apr-05	20:37	Region 1 briefed Dyer, Collins, Merschoff, McGinty.
17-Apr-05	18:42	B PORV isolated and down stream temperature decreased. B PORV was leaking
17-Apr-05	22:30	Sample D S/G no indication of primary to secondary leak.
17-Apr-05	23:08	RHR running.
17-Apr-05	09:23	Millstone 3 notified NRC HOC of Alert.
17-Apr-05	23:45	NRC exited Monitoring Mode.