Effective Date 3/13/07

APPROVED: DA Boyle 3-14-07
Manager - Hope Creek Operations **Date**

CATEGORY II

DRYWELL PRESSURE

ALARMS

• DRYWELL PRESSURE HI/LO	**A7 – E4**
• DRYWELL PRESSURE HI/HI	**A7 – D4**
• DRYWELL PRESSURE HI	**C5 – B5**
• COMP PT IN ALARM	**A4 – F5**
• DLD SYSTEM	**C6 – B1**

INDICATIONS

- Rising Drywell Pressure
- Rising Drywell Temperature

TERMINATED Date/Time: _____

RETAINMENT OVERRIDE	
CONDITION	**ACTION**
I. Drywell Pressure is ≥ 1.5 psig and rising. Date/Time: _____	☐ **I.a** **REDUCE** Recirc. Pump Speed to MINIMUM. ☐ **I.b** **LOCK** the Mode Switch in Shutdown.

IMMEDIATE OPERATOR ACTIONS

NONE

AUTOMATIC ACTIONS

NONE

RETAINMENT OVERRIDE	
CONDITION	**ACTION**
I. Drywell Pressure is ≥ 1.5 psig and rising. Date/Time: _____	☐ **I.a** **REDUCE** Recirc. Pump Speed to MINIMUM. ☐ **I.b** **LOCK** the Mode Switch in Shutdown.

LIST OF CONDITIONS

RETAINMENT OVERRIDE	
CONDITION	**ACTION**
I. Drywell Pressure is ≥ 1.5 psig and rising. Date/Time: _____	☐ **I.a** **REDUCE** Recirc. Pump Speed to MINIMUM. ☐ **I.b** **LOCK** the Mode Switch in Shutdown.

CAUTION:

1. **If the cause of the loss of Turbine Building Chilled Water is Gas/Air intrusion, there is a potential to displace air into the RACS System, degrading its operation.**

NOTES:

1. To minimize TBCW Pump runout and/or aid in the recovery of tripped TBCW Pumps, it may be necessary to align TBCW in a one pump / one evaporator line up until a two pump/three evaporator line up can be established. Monitor affected Drywell Loads (i.e. Recirc Pump Air Coolers, Drywell Temperature, etc.) while in a reduced flow and reduced cooling line up.

ADDITIONAL INFORMATION:

CRIDS Points:

- PAGE DISPLAY 60, DRYWELL UNIT CLR & AREA AIR TEMP
- PAGE DISPLAY 88, DRYWELL CHILLED WTR LOOPS A & B
- PAGE DISPLAY 104, REAC BLDG UNIT COOLERS

Procedures:

- HC.OP-GP.ZZ-0005(Q), Drywell Leakage Source Detection

Valve Descriptions:

- ED-HV-2577 Feed Gas Cooler Condenser 10E306 RACS Supply Valve
- ED-HV-7712A1 Feed Gas Cooler Condenser 00E306 RACS Supply Valve
- GB-HV-9532-1 CHW HDR RB ISLN RET
- GB-HV-9532-2 CHW HDR RB ISLN SPLY
- GB HV-9530A1 CONTAINMENT CLG LOOP A CHW SPLY
- GB HV-9530A3 CONTAINMENT CLG LOOP A CHW RTN
- GB-HV-9530A2 CONTAINMENT CLG LOOP A RACS SPLY
- GB-HV-9530A4 CONTAINMENT CLG LOOP A RACS RTN
- GB-HV-9530B1 CONTAINMENT CLG LOOP B CHW SPLY
- GB-HV-9530B3 CONTAINMENT CLG LOOP B CHW RTN
- GB-HV-9530B2 CONTAINMENT CLG LOOP B RACS SPLY
- GB-HV-9530B4 CONTAINMENT CLG LOOP B RACS RTN

SUBSEQUENT OPERATOR ACTIONS

CONDITION	ACTION
A. Unexpected rise in Drywell Pressure. Date/Time: _____	☐ A.1 **TERMINATE** Containment Makeup AND Inerting. A.2 **MAXIMIZE** Drywell Cooling by **ENSURING**: ☐ • All Drywell Fan Cooling Coils are Open. ☐ • All Drywell Fans are running in Fast Speed. ☐ ****NOTE 1**** ☐ • Proper TBCW system operation A.3 **PERFORM** the following: ☐ • Check Reactor Recirc. Pump Seals. ☐ • Check SRV Tailpipe Temperatures. ☐ • Drywell Leakage Source Detection IAW GP.ZZ-0005.
B. Turbine Bldg. Chill Water System is lost to the Drywell. Date/Time: _____	☐ ★ **CAUTION 1** ★ B.1 **ALIGN** RACS to the Chill Water System for Drywell Cooling as follows: a. **ENSURE** RACS to the out of service Off-Gas Train is ISOLATED as follows: ☐ • IF the Common Off-Gas Train is in service, THEN **CLOSE** HV-2577. ☐ • IF Unit 1 Off-Gas Train is in service, THEN **CLOSE** HV-7712A1. ☐ b. **CLOSE** HV-9532-1 AND HV-9532-2. ☐ c. **PRESS** LOOP A SPLY/RTN OPEN RACS PB. ☐ d. **PRESS** LOOP B SPLY/RTN OPEN RACS PB. e. **OBSERVE** the following indications: ☐ • HV-9530A1/A3 CLOSED ☐ • HV-9530B1/B3 CLOSED ☐ • HV-9530A2/A4 OPEN ☐ • HV-9530B2/B4 OPEN ☐ f. **OPEN** HV-9532-1 AND HV-9532-2.

RETAINMENT OVERRIDE	
CONDITION	**ACTION**
I. Drywell Pressure is ≥ 1.5 psig and rising. Date/Time: _____	☐ **I.a** **REDUCE** Recirc. Pump Speed to MINIMUM. ☐ **I.b** **LOCK** the Mode Switch in Shutdown.

NOTES:

2. After a DBA-LOCA with immediate and complete Fuel Failure, it is assumed that actions for Condition D will be performed within 1 hour for Feedwater Sealing System. **[CR990623086]**

ADDITIONAL INFORMATION:

CRIDS Points:

- D3727, RB PIPE CHASE CH A ISLN DMPR
- D3729, RB PIPE CHASE CH C ISLN DMPR
- PAGE DISPLAY 105, ISOLATION DAMPERS (GU)

Procedures:

- HC.OP-SO.GR-0001(Q), Reactor Building Ventilation System Operation.
- HC.OP-DL.ZZ-0026(Q), Attachment 1A, Surveillance Log - Control Room
- HC.OP-SO.AE-0001(Q), Feedwater System Operation.

Valve Descriptions:

- GS-HV-4951 PRI CNTMT VENT TO CPCS BYPASS
- GS-HV-4952 PRI CNTMT TO CPCS INBD ISLN DMPR
- GT-HD-9372A PURGE EXH DRYWELL VENT
- AB-HV-F071 DRAIN HDR ISLN

TABLE 1

BLOWOUT PANEL	LOCATION	DESCRIPTION
1-GT-PSE-9310A	RM 4319	VIEW FROM STEP-OFF PAD THRU WALL MOUNTED MIRROR
1-GT-PSE-9310B		
1-GT-PSE-9311A	RM-4410	15' UP ABOVE 'A' FRVS RECIRC FAN
1-GT-PSE-9311B		
1-GT-PSE-9324A	TORUS RM	VIEW USING CAMERA INSIDE THE NORTH TORUS DOOR
1-GT-PSE-9324B		
1-GT-PSE-9309	RM 4321	JUST INSIDE PIPECHASE, 20' UP

SUBSEQUENT OPERATOR ACTIONS (continued)

CONDITION	ACTION
C. Drywell Pressure ≥ 0.75psig AND No Evidence of Elevated Coolant System Leakage Date/Time: _____	☐ C.1 **PREPARE** a Gaseous Effluent Permit concurrently with Step C.2 and C.3. C.2 **VENT** the Drywell to maintain Drywell Pressure < 0.75 psig as follows: ☐ a. **ENSURE** Containment is aligned to vent thru RBVS/FRVS within 4 hours prior to start IAW DL.ZZ-0026. b. **OPEN** the following: ☐ 1. HD-9372A ☐ 2. HV-4952 ☐ 3. HV-4951 C.3 **SECURE** Drywell venting as follows: a. **CLOSE** the following: ☐ 1. HV-4951 ☐ 2. HV-4952 ☐ 3. HD-9372A ☐ b. Visually **VERIFY** the Blowout Panels in TABLE 1 are intact. c. **ENSURE** the following Back Draft Isolation Dampers are OPEN.(GR) ☐ • Dampers in table on CRIDS Page 105 ☐ • RB PIPECHASE CH A ISLN DMPR ☐ • RB PIPECHASE CH C ISLN DMPR
D. Indication of Major Fuel Failure. (Post LOCA) **[CD-829X]** Date/Time: _____	☐ ****NOTE 2**** ☐ D.1 **PLACE** the Feedwater Sealing System in operation. (AE) ☐ D.2 **CLOSE** HV-F071.

RETAINMENT OVERRIDE	
CONDITION	**ACTION**
I. Drywell Pressure is ≥ 1.5 psig and rising. Date/Time: _____	☐ **I.a** **REDUCE** Recirc. Pump Speed to MINIMUM. ☐ **I.b** **LOCK** the Mode Switch in Shutdown.

ADDITIONAL INFORMATION:

CRIDS Points:

- Page Display 60, Drywell Unit CLR & Area Air Temp
- Page Display 88, Drywell Chilled WTR Loops A&B
- Page Display 104, REAC BLDG Unit Coolers

Procedures:

- HC.OP-SO.GB-0001(Q), Chilled Water System Operation.
- HC.OP-SO.GU-0001(Q), Filtration Recirculation and Ventilation System Operation
- HC.OP-SO.GL-0001(Q), Service Area Ventilation System Operation
- HC.RW-SO.GH-0001(Q), Radwaste Area Ventilation System Operation

Equipment:

- A(B,C)VH300, Reactor Building Supply Fans (RBVS)
- A(B,C)VH301, Reactor Building Exhaust Fans (RBE)
- 0A(B)VH131, Service Area Supply Fans (SAS)
- 0A(B)V308, Service Area Exhaust Fans (SAE)
- 0A(B)VH317, Solid Radwaste Supply Fans
- 0A(B)V318, Solid Radwaste Exhaust
- 0A(B)V316, Radwaste Supply System
- 0A(B,C)V305, Radwaste Exhaust System

SUBSEQUENT OPERATOR ACTIONS (continued)

CONDITION	ACTION
E. High Turbine Bldg. Chill Water Temperature. Date/Time: _____	☐ E.1 **PLACE** additional Turbine Bldg. Chillers in service. (GB) E.2 **LOWER** Chilled Water heat load by performing the following as required: ☐ • **PLACE** FRVS in service. (GU) ☐ • **REMOVE** one Service Area Supply AND Exhaust Fan from service. (GL) ☐ • **REMOVE** one Solid Radwaste Supply AND Exhaust Fan from service. (GH) ☐ • **PLACE** Radwaste Ventilation in a 1 Supply Fan with two Exhaust Fans alignment. (GH)

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1.0 COMPLETION AND REVIEW

1.1 **EXPLAIN** the entry Condition into the abnormal in the Comments Section. ____

1.2 **ANNOTATE** in the comments section all systems affected by the implementation of this procedure AND restoration actions (i.e. restoration line ups) completed/required. ____

1.3 **ATTACH** photocopies of any Hard Cards utilized as part of this procedure implementation to Attachment 1. ____

1.4 **ENSURE** the Exit time for any applicable conditions and this abnormal are annotated in the comment section AND the Control Room Logs. ____

1.5 **FORWARD** completed Portions of this procedure AND Sections 1 and 2 of Attachment 1 to SM/CRS for approval and Record Retention. ____

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ATTACHMENT 1

(Page 1 of 2)

COMPLETION AND REVIEW

1.0 COMMENTS:

ATTACHMENT 1
(Page 2 of 2)
COMPLETION AND REVIEW

2.0 SIGNATURES:

PRINT NAME	SIGNATURE	INITIALS	DATE/TIME

Completion of this attachment is annotated in the Control Room Logs:

Printed Name	Signature	Date/Time

3.0 SM/CRS FINAL REVIEW AND APPROVAL:

This procedure and Attachment 1 have been reviewed for completeness and accuracy. Entry/Exit conditions and all deficiencies, including corrective actions, are clearly recorded in the COMMENTS Section above.

Printed Name	SM/CRS	Date/Time

4.0 RECORDS

4.1 **RETAIN** the following in accordance with RM-AA-101, Records Management Program:

- Procedure cover page
- Affected Conditions and Hard Cards performed
- Completion and Review section
- Attachment 1

REVISION SUMMARY

- Adds a TERMINATED Date/Time block to the front page of this procedure. This is an editorial change. (80076308-0010)
- Incorporates approved OTSC 0A into Condition B (formerly Condition C) to add direction to secure RACS flow to Off-Gas train prior to aligning RACS to Drywell Cooling. This is an editorial change. (80070707-0020)
- Incorporates approved OTSC 0B to give additional guidance to lower Chill Water heat load. Moved Condition B to Condition E for space considerations in support changes. This is an editorial change. (80071123-0020)
- Moved Step C.2.b to C.3.c. These dampers are not part of the ventilation line up for venting the drywell. As requested by the order the dampers are checked on a post evolution step to ensure none have tripped during drywell venting. (80069904-0010)
- Added Caution 1 to Condition B stating: "If the cause of the loss of Turbine Building Chilled Water is Gas/Air intrusion, there is a potential to displace air into the RACS System, degrading its operation." This change alerts the operators of potential adverse effects on the RACS System should this be the problem with Turbine Building Chilled Water. (80073815-0010)
- Added Note 1 to Condition A "To minimize TBCW Pump runout and/or aid in the recovery of tripped TBCW Pumps, it may be necessary to align TBCW in a one pump / one evaporator line up until a two pump/three evaporator line up can be established. Monitor affected Drywell Loads (i.e. Recirc Pump Air Coolers, Drywell Temperature, etc.) while in a reduced flow and reduced cooling line up." (80074155-0010)
- Added "Completion and Review" section to the procedure with associated Attachment 1. This is an editorial change. Revision bars were not used for this change.
- Changes ACTION A.1 to terminate containment makeup and inerting. Makeup is another source of rising pressure. (70065906-0010)
- Corrects the system designator for HD-9372A to system GT. This is an editorial change. (70064474-0050)

IMPLEMENTATION REQUIREMENTS

None