Restore RB HVAC to Operation Following Automatic Isolation

Job Position(s): ☒ RO ☒ SRO

Source: ☐ New ☐ Bank ☒ Modified JP-OP-315-0166-001
(Facility ID No. for Bank or Modified)

K/A Reference: 288000.A4, Ability to manually operate and/or monitor in the control room

Method of testing: ☐ Simulated/Walk-thru Performance [Classroom/Plant]

☒ Actual Performance [Simulator/Lab]

Type: (Check all that apply)

☐ Administrative Topics ☒ Control Room Systems ☐ In-Plant Systems
☐ Alternate Path ☒ Emergency/Abnormal ☐ ESF
☐ Low-Power/Shutdown ☐ Time Critical

Task Standard: RB HVAC is in Operation.

Validation Time: 15 Minutes

Simulator Setup:

This JPM may be performed in any IC.

Manually start Division 1 of SGTS using Manual Isolation Pushbutton per section 5.4 of 23.404.

Verify shutdown and isolation of the RBHVAC system per section 5.4 of 23.404.

Required Materials:

23.404, Standby Gas Treatment System

23.426, Reactor Building Heating Ventilation And Air Conditioning

General References:

23.404, Standby Gas Treatment System

23.426, Reactor Building Heating Ventilation And Air Conditioning

Initial Conditions:

An automatic shutdown and isolation of RB HVAC occurred.

The cause of the actuation signal has since cleared.

Initiating Cue:

Return RB HVAC to service.

Performance Information

Critical Steps are annotated by "**c**" and italicized text.

	ELEMENTS	STANDARDS
	EVALUATOR PROMPT After applicant demonstrates ability to obtain SS-1 printout, inform him that RB SPING status is NORMAL. Provide Independent Verification when requested.	
	1. Obtain a SS-1 printout or verify locally proper operation of the Reactor Building Exhaust Plenum Radiation Monitor by verifying normal status for Channel 1, and document completion of Independent Verification of normal status for RB SPING	NORMAL status verified for RB SPING.
	2. If recovering from an Automatic initiation of Reactor Building Ventilation Isolation condition:	
	a. Verify initiating logic has been reset.	
	b. Disarm or Verify Disarmed Division 1 and 2 Manual Isolation Trip pushbuttons.	b. Arming collar rotated to Dis-Armed and annunciator 8D25 reset.
c	*c. Depress Division 1 and 2 Manual Isolation RESET pushbuttons.*	*c. Pushbuttons depressed.*
	d. Verify green Division 1 and 2 Reactor Building Isolate RESET lights come ON.	d. White TRIPPED light OFF and the Green RESET light ON
	3. Select desired Reactor Building Ventilation Exhaust Fan:	
	a. Place its four-position mode switch in a position corresponding to appropriate Reactor Building Ventilation Supply Fan.	a. Selected exhaust fans CMC switches positioned to correspond with the associated supply fans to be started.
	b. Ensure no other switches are selected to that supply fan.	b. No other exhaust fan CMC switches are selected for the supply fans to be started.
c	*4. Place appropriate Reactor Building Ventilation Supply Fans in AUTO.*	*Selected supply fans CMC switches placed in AUTO*

ELEMENTS	STANDARDS
c *5. Start selected Reactor Building Ventilation Exhaust Fan* and verify the following: a. Exhaust Fan starts and Exhaust Secondary Isolation Dampers open. b. Respective Exhaust Fan Discharge Damper begins to open, after a 20 second time delay. c. After approximately seven seconds for first fan, and after approximately two seconds for remaining fans: • Selected Supply Fan auto starts and • Secondary Containment Supply Isolation Dampers open. d. Twenty seconds after the Supply Fan starts the respective Supply Fan Discharge Damper begins to open. e. T4100-F029, RBHVAC Intake Air Damper, opens. f. Respective Discharge Dampers for the Exhaust and Supply Fan travel to the full open position. g. NO FLOW indicating lights go OFF.	*Selected exhaust fan CMC switch placed in RUN* a. T=0; Exhaust fan Red light ON and Green light OFF; Exhaust Secondary Isolation Damper Red light ON and Green light OFF b. T=20; Exhaust Fan Discharge Damper Red light ON and Green light ON c. T=27; Supply fan Red light ON and Green light OFF; Secondary Containment Supply Isolation Damper Red light ON and Green light OFF d. T=47; Supply Fan Discharge Damper Red light ON and Green light ON e. T4100-F029 Red light ON and Green light OFF f. Respective Exhaust and Supply Fan dampers Red light ON and Green light OFF g. NO FLOW indicating lights go OFF
c *6. When flows have stabilized, start a second set of Reactor Building Ventilation Supply and Exhaust Fans.*	*Selected exhaust fan CMC switch placed in RUN* a. T=0; Exhaust fan Red light ON and Green light OFF; Exhaust Secondary Isolation Damper Red light ON and Green light OFF b. T=20; Exhaust Fan Discharge Damper Red light ON and Green light ON c. T=22; Supply fan Red light ON and Green light OFF; Secondary Containment Supply Isolation Damper Red light ON and Green light OFF d. T=42; Supply Fan Discharge Damper Red light ON and Green light ON e Respective Exhaust and Supply Fan dampers Red light ON and Green light OFF f. NO FLOW indicating lights go OFF

	ELEMENTS	STANDARDS
	7. Monitor Reactor Building differential pressure for Division 1 and 2 on T41-R800A (B), Div 1 (2) CR and RB Diff Press Rec. a. Maintain Reactor Building pressure at a normal reading of minus 0.25 inches H2O (minus 0.125 inches to minus 0.5 inches) differential pressure (dP).	Reactor Building differential pressure is minus 0.125 inches to minus 0.5 inches

NOTE TO EVALUATOR: The following sub-steps are from section 5.6 and exclude steps 5.6.2.2 and 5.6.2.3 which have no applicability.

	8. Start Reactor Building Booster Exhaust Fans in accordance with Section 5.6.	
c	*a. Place the following switches in AUTO (H11-P808):* • *T4100-C015, RB Sample Sink Bstr Exh Fan* • *T4100-C016, RB CA Equip Room Bstr Exh Fan*	*a. CMC switches in AUTO*
	b. Check operation of Booster Fans by the following alarms are clear: • 8D33, RB CONTAM'D EQUIP STRGE RM EXHAUST FAN NO FLOW • 8D34, REAC BLDG H2O SAMP STA EXHAUST FAN NO FLO	b. Annunciators 8D33 and 8D34 are not in alarm.
	9. Rotate Reactor Building Exhaust Fan Trip Alarm Reset pushbutton collar to ON to restore alarm to service (RB5-A15).	Reactor Building Exhaust Fan Trip Alarm Reset pushbutton collar rotated to ON

Terminating cue: Terminate JPM when applicant reports that RB HVAC is in operation.

EXAMINEE CUE SHEET

Initial Conditions:

An automatic shutdown and isolation of RB HVAC occurred.

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Initiating Cue:

Return RB HVAC to service.