Transfer Feedwater Control from Long Cycle Cleanup to Startup Level Control

Job Position(s): ☒ RO ☒ SRO

Source: ☐ New ☒ Bank JP-OP-315-0107-002
☐ Modified (Facility ID No. for Bank or Modified)

K/A Reference: 259001.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: Feedwater Control is transferred from Long Cycle Cleanup to Startup Level Control in accordance with 23.107.

Validation Time: 15 Minutes

Simulator Setup:

The simulator should be running in IC 5, just critical. Power will need to be stabilized by inserting control rods.

Verify Long Cycle Cleanup is established with two Condenser Pumps and .three Condensate Filter Demins in service.

Establish RWCU Blowdown flow of approximately 60 gpm.

Required Materials:

NONE

General References:

23.107, Reactor Feedwater and Condensate Systems

Initial Conditions:

You are the Control Room NSO.

Plant startup is in progress. The reactor is just critical. Pressurization is to begin.

Feedwater is in Long Cycle Cleanup mode. Chemistry has reported Condensate and Feedwater is within the administrative limits.

Initiating Cue:

Transfer Feedwater Control from Long Cycle Cleanup to Startup Level Control.

Performance Information

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

	ELEMENTS	STANDARDS
	NOTE TO EVALUATOR: The following steps are taken from section 5.1.2 of 23.107. Step 1 of section 5.1.2 is satisfied by the initial conditions	
1.	IF only one Condenser pump is running, …	No action required
2.	Verify RPV Startup LCV Mode switch is in START.	Switch is in START.
3.	Verify the following (COP H11-P603): a. Feedwater Logic white POST SCRAM light is OFF. b. Reactor Water Level Set Down white POST SCRAM light is OFF.	Both white POST SCRAM lights are OFF
4.	Place RPV Startup LCV M/A station in MANUAL.	M/A station is in MANUAL.
5.	Place Level Control Mode selector switch in 1 ELEM.	Switch is in 1 ELEM.
c 6.	*Adjust N21-F403, RPV Startup LCV, to 0% (fully closed).* a Verify N20-F404, Cond Min Flow Ctrl Valve, opens to maintain at least 9,000 gpm as indicated on Cond to Cond F/Ds Flow Recorder, N21-R815.	*On H11-P603, Startup LCV position is 0%.* *N20-F404 is throttles open.* *N21-R815 reads approx 9,000 gpm.*
c *7.*	*Close N2100-F604, Fw Htr 6N Cond Rtn to Cndr Vlv.* *Close N2100-F605, Fw Htr 6S Cond Rtn to Cndr Vlv.*	*Close light is ON, Open light is OFF.* *Close light is ON, Open light is OFF.*

	ELEMENTS	STANDARDS
c *8.*	*Open N2100-F601, FW Htr 6N Outlet Iso Valve.* *Open N2100-F602, Fw Htr 6S Outlet Iso Valve.*	*Open light is ON, Close light is OFF.* *Open light is ON, Close light is OFF.*
	EVALUATOR PROMPT Report as plant operator that breaker for N21-F604 (MCC 72A-4A, Position 4A) is open.	
9.	Open disconnect switch for N2100-F604 on MCC 72A-4A, Position 4A.	Acknowledges local report.
	EVALUATOR PROMPT Report as plant operator that breaker for N2100-F605 (MCC 72R-2A Position 3C) is open.	
10.	Open disconnect switch for N2100-F605 on MCC 72R-2A, Position 3C.	Acknowledges local report.
c *11.*	*Slowly throttle open N21-F403, RPV Startup LCV, until Reactor water level starts to increase.* As feed flow to the vessel increases, verify N20-F404, Cond Min Flow Ctrl Valve, auto closes, maintaining Condensate flow rate at approximately 9000 gpm, as indicated on N20-R815	*Valve position indicates partially open.* *Reactor water level starts to increase.* *Flow to RPV is indicated by Check Valves opening and Flow to RPV indicator reading increasing.* N20-F404 throttles to maintain condensate flow at approx 9000 gpm as flow to the Reactor increases.
c *12.*	. *When desired water level is reached (Level 4 to 7), using the level setpoint thumbwheel, null Startup LCV M/A station, and place in AUTO.*	*Water level is between Level 4 and 7.* *M/A station is nulled.* *M/A station green AUTO light is ON.*
13.	Adjust RPV water level setpoint to maintain desired Reactor water level.	Water level is stable between Level 4 and 7.

Terminating cue: Terminate JPM when applicant reports that Feedwater Control is in Startup Level Control.

EXAMINEE CUE SHEET

Initial Conditions:

You are the Control Room NSO.

Plant startup is in progress. The reactor is just critical. Pressurization is to begin.

Feedwater is in Long Cycle Cleanup mode. Chemistry has reported Condensate and Feedwater is within the administrative limits.

Initiating Cue:

Transfer Feedwater Control from Long Cycle Cleanup to Startup Level Control.