Original Question #22	ID: 1450967	Points: 1.00

Given the following conditions on Unit 1:
- Reactor power is 7% power
- The turbine is being rolled for a start up
- The condenser has developed a small vacuum leak
- Condenser pressure is 26.7 inches of Hg. and slowly lowering
- The crew has entered AOP-7G, LOSS OF CONDENSER VACUUM

What is: 1) the MINIMUM backpressure setpoint at which the Turbine Bypass Valves becomes unavailable, and 2) what does this setpoint protect?

A. 1) 20 inches Hg.
2) Low pressure turbine blades from stationary diaphragm rubbing

B. 1) 20 inches Hg.
2) Main condenser from overpressure

C. 1) 22.5 inches Hg.
2) Main condenser from overpressure

D. 1) 22.5 inches Hg.
2) Low pressure turbine blades from stationary diaphragm rubbing

Answer	C

Answer Explanation

A. INCORRECT - 1) Plausible since the setpoint is for the SGFP trip and the basis document states that feed flow will be lost when TBV pressure setpoint is reached, however the setpoint is 22.5 inches Hg. 2) Plausible since the LP turbine blades are sensitive to back pressure and stationary diaphragm rubbing, however the basis document stipulates that condenser overpressure is the reason the TBV permissive is lost.
B. INCORRECT - 1) Plausible since the setpoint is for the SGFP trip and the basis document states that feed flow will be lost when TBV pressure setpoint is reached, however the setpoint is 22.5 inches Hg. 2) Correct reason per basis document
C. CORRECT - Basis Document NOTE 4 provides this information
D. INCORRECT - 1) Correct TBV setpoint 2) Plausible since the LP turbine blades are sensitive to back pressure and stationary diaphragm rubbing, however the basis document stipulates that condenser overpressure is the reason the TBV permissive is lost.

Question Information

Topic	L97703 St. Lucie 2001 RO Exam: Loss of condenser vacuum and AOP				
User ID	Q97703			**System ID**	1450967
Project	CC-OPS				
Status	Active	**Point Value**	1.00	**Time (min)**	3

Open or Closed Reference		**Cognitive Level**	MEMORY
Operator Discipline	LO-ct	**Operator Type**	job

References Provided	
K/A Justification	
SRO-Only Justification	
Additional Information	

K/A Info: 051 Loss of Condenser Vacuum
AK3 - Knowledge of the reasons for the following responses as they apply to the Loss of Condenser Vacuum:
AK3.01 - Loss of steam dump capability upon loss of condenser vacuum
References: AOP-7G
Comments: Modified St. Lucie 2011 RO Exam for ILO Exam Bank use. JLG

K/A Reference(s)

APE.051.AK3.01	Safety Function 4	Tier 1	Group 2	RO Imp: 2.8*	SRO Imp: 3.1*
Knowledge of the reasons for the following responses as they apply to the Loss of Condenser Vacuum: (CFR 41.5,41.10 / 45.6 / 45.13) Loss of steam dump capability upon loss of condenser vacuum					

Learning Objective(s)

Question not linked to a Learning Objective

Cross Reference Links

None

Original Question #51	ID: 1442194	Points: 1.00

SG Blowdown Tank Rad Monitor, RI-4014, alarms. What automatic action(s), if any, occur(s)? Assume BD REC HI-TEMP DUMP, 1-BD-4088-CV, is open.

A. Blowdown isolation CVs go shut and blowdown recovery shifts to Miscellaneous Waste system.

B. Blowdown recovery shifts to Miscellaneous Waste System and operator action needed to shut SG Blowdown CVs.

C. Blowdown isolation CVs go shut and blowdown recovery shifts to the Circulating Water System.

D. None. Manual operator action is required to shut the SG Blowdown CVs and shift blowdown recovery to Miscellaneous Waste.

Answer	A

Answer Explanation

No explanation provided

Question Information

Topic	SG Blowdown Tank Rad Automatic actions when RI-4014 alarms				
User ID	SGBD Q24651			**System ID**	1442194
Project	CC-OPS				
Status	Active	**Point Value**	1.00	**Time (min)**	3

Open or Closed Reference	CLOSED	**Cognitive Level**	MEMORY
Operator Discipline	LO-I	**Operator Type**	RO
10CFR55 Content	CFR: 41.7 Design, components, and functions of control and safety systems, including instrumentation, signals, interlocks, failure modes, and automatic and manual features.		

References Provided	N/A
K/A Justification	N/A
SRO-Only Justification	Not applicable
Additional Information	N/A

Basis: SG Blowdown Tank Rad Monitor R1-4014 Alarms HighReferences: 55.41:7 55.43:5 / SD-19KA1: 018K1.02KA2: K4.01

K/A Reference(s)

SF1.014.K4.01	Safety Function 1	Tier 2	Group 2	RO Imp: 2.5*	SRO Imp: 2.7*
Knowledge of RPIS design feature(s) and/or interlock(s) which provide for the following: (CFR: 41.5 / 45.7) Upper electrical limit					

Learning Objective(s)

Evaluate the response of the SG Blowdown and Recovery system for the following conditions:

- RI-4014 (SG Blowdown tank) in alarm
- RI-4095 (SG Blowdown Recovery) in alarm

User (Sys) ID 24428 (1203645)

Cross Reference Links

None