

Facility: <u>Byron Nuclear Station</u>	Date of Examination: <u>10/28/19</u>	
Examination Level: RO <input checked="" type="checkbox"/> SRO <input type="checkbox"/>	Operating Test Number: <u>2019-302</u>	
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	R, D	RA-1-03-0 Perform Shutdown Margin Calculation Bank (2010 ILE) K/A: G2.1.37 (4.3)
Conduct of Operations		
Equipment Control	R, N	RA-2-02-0 Establish Clearance Boundary for the 0A FP Pump New K/A: G2.2.13 (4.1)
Radiation Control	S, D	RA-3-01-0 Change RMS Setpoints in Preparation for a Unit 1 Containment Release Bank (2016 ILE) K/A: 2.3.5 (2.9)
Emergency Plan	S, N	RA-4-02-0 Respond to a Diesel Generator FOST Room Fire Alarm New K/A: G2.4.27 (3.4)
NOTE: All items (five total) are required for SROs. RO applicants require only four items unless they are retaking only the administrative topics (which would require all five items).		
* Type Codes and Criteria: (C)ontrol room, (S)imulator, or Class(R)oom (D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs and RO retakes) 2 (N)ew or (M)odified from bank (≥ 1) 2 (P)revious 2 exams (≤ 1, randomly selected) 0		

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Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	R, M	SA-1-03-0 Evaluate License Holder's Status Modified Bank (2017 ILE) K/A: G2.1.4 (3.8)
Conduct of Operations	R, M	SA-1-04-0 Review Completed Shutdown Margin Calculations Modified Bank (2010 ILE) K/A: G2.1.37 (4.6)
Equipment Control	R, M	SA-2-02-0 Complete a Plant Barrier Impairment Permit (Door ODS351) Modified Bank (2017 ILE) K/A: G2.2.21 (4.4)
Radiation Control	R, D	SA-3-02-0 Accessing Containment at Power Bank (2017 Cert) K/A: G2.3.13 (3.8)
Emergency Plan	R, N	SA-4-02-1 Perform Follow-up PARs for a General Emergency New K/A: G2.4.44 (4.4)
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Exam Level: RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>	Operating Test Number: <u>2019-302</u>	
Control Room Systems: 8 for RO, 7 for SRO-I, and 2 or 3 for SRO-U		
System/JPM Title	Type Code*	Safety Function
<p>a. CR-1-02-0A</p> <p>Perform partial 1BOSR 1.4.2-1 Moveable Control Assemblies Qtly Surv (control banks only)</p> <p>(Alt Path – two control rods fully drop, requiring Rx Trip)</p> <p>2012 NRC Exam (Modify)</p> <p>K/A: 014 / A2.03; IR: 3.6 / 4.1</p> <p>CFR: 45.2</p>	A, M, S	1
<p>b. CR-2-02-0A</p> <p>Isolate SI Accumulators per 1BCA-1.1, Step 26</p> <p>(Alt Path - two discharge valves fail to close requiring venting)</p> <p>No source JPM</p> <p>K/A: 006 / A4.07; IR: 4.4/ 4.4</p> <p>CFR: 45.5</p>	A, E, N, S	2
<p>c. CR-3-02-0</p> <p>Establish RH Letdown Flow and Secure Normal Letdown Flow</p> <p>2012 NRC Exam</p> <p>K/A: 006 / A4.04; IR: 3.7 / 3.6</p> <p>CFR: 45.5</p>	D, L, S	3
<p>d. CR-4S-02-0</p> <p>Synch Main Generator per 1BGP 100-3 Step 27 (requires raising turbine speed per BOP EH-13)</p> <p>No source JPM</p> <p>K/A: 045 / G2.2.44; IR: 4.2, 4.4</p> <p>CFR: 45.6</p>	N, S	4S
<p>e. CR-5-02-0A</p> <p>Start RCFCs in Low Speed</p> <p>(Alt Path - SX Valves not Open)</p> <p>2010 NRC Exam</p> <p>K/A: 022 / A4.01; IR 3.6 / 3.6</p> <p>CFR: 45.6</p>	A, M, L, EN, S	5

<p>f. CR-6-02-0</p> <p>Unload DG that is Paralleled to the SAT</p> <p><i>2012 NRC Exam</i></p> <p><i>K/A: 064 / A4.06; IR: 3.9 / 3.9</i></p> <p><i>CFR: 45.6</i></p>	D, EN, S	6
<p>g. CR-7-02-0</p> <p>Respond to Power Range Channel N41 Failure by Bypassing Associated Bistables</p> <p><i>No source JPM</i></p> <p><i>K/A: 015 / A4.03; IR: 3.8 / 3.9</i></p> <p><i>CFR: 45.5</i></p>	N, S	7
<p>h. CR-8-01-0A</p> <p>Start Standby CW Pump per BOP CW-1 (discharge valve fails to open)</p> <p>(Alt Path - Discharge Valve Fails to Open, requires tripping pump)</p> <p><i>2017 NRC Exam (Modify)</i></p> <p><i>K/A: 075 / G2.1.20; IR: 4.6 / 4.6</i></p> <p><i>CFR: 45.12</i></p>	A, M, S	8
In-Plant Systems: 3 for RO, 3 for SRO-I, and 3 or 2 for SRO-U		
<p>i. IP-8-01-0</p> <p>Perform Manual Makeup to U2 CC Surge Tank per BOP CC-17</p> <p><i>No source JPM</i></p> <p><i>K/A: 008 / A1.04; IR: 3.1 / 3.2</i></p> <p><i>CFR: 45.5</i></p>	N, R	8
<p>j. IP-4S-02-0</p> <p>Locally Operate the _AF005A-D at the RSP</p> <p><i>2016 Cert Exam</i></p> <p><i>K/A: 061 / G2.1.30; IR: 4.4 / 4.0</i></p> <p><i>CFR: 45.7</i></p>	D, E	4S
<p>k. IP-4P-01-0</p> <p>Manually Operate _MS018A (S/G PORV) per BOP MS-6 due to S/G Overpressure</p> <p><i>No source JPM</i></p> <p><i>K/A: WE13 / EK3.3; IR: 3.2 / 3.4</i></p> <p><i>CFR: 45.8</i></p>	E, N	4P

* All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions, all five SRO-U systems must serve different safety functions, and in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria for RO /SRO-I/SRO-U
(A)lternate path (C)ontrol room (D)irect from bank (E)mergency or abnormal in-plant (EN)gineered safety feature (L)ow-Power/Shutdown (N)ew or (M)odified from bank including 1(A) (P)revious 2 exams (R)CA (S)imulator	4-6/4-6 /2-3 (4) ≤ 9/≤ 8/≤ 4 (3) ≥ 1/≥ 1/≥ 1 (2) ≥ 1/≥ 1/≥ 1 (control room system) (2) ≥ 1/≥ 1/≥ 1 (2) ≥ 2/≥ 2/≥ 1 (8, 4A) ≤ 3/≤ 3/≤ 2 (randomly selected) (0) ≥ 1/≥ 1/≥ 1 (1)

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<p>b. CR-2-02-0A</p> <p>Isolate SI Accumulators per 1BCA-1.1, Step 26</p> <p>(Alt Path - two discharge valves fail to close requiring venting)</p> <p>No source JPM</p> <p>K/A: 006 / A4.07; IR: 4.4/ 4.4</p> <p>CFR: 45.5</p>	A, E, N, S	2
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