

Facility: <u>Byron NRC 2016</u>		Date of Examination: <u>3/14/2016</u>
Exam Level: RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>		Operating Test No.: <u>Byron 2016301</u>
Control Room Systems:* 8 for RO; 7 for SRO-I; 2 or 3 for SRO-U		
System / JPM Title	Type Code*	Safety Function
a. Realign RCCA 003AA1.02 Ability to operate and/or monitor the following as they apply to the Dropped Control; Rod: Controls and componenets necessary to recover rod. 3.6/3.4 Bank	S, D	1
b. Switch to Hot Leg Recirculation 011EA1.11 Ability to operate and monitor the following as they apply to a Large Break LOCA: Long-term cooling of core. 4.2/4.2 Bank - 2013 NRC	S, P, D, EN, L	2
c. SI pump ASME startup (with cavitation indication) 006A2.04 Ability to (a) predict the impacts of the following malfunctions or operations on the Emergency Core Cooling System; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Improper discharge pressure. 3.4/3.8 Bank	S, D, EN, A	3
d. Respond to RCP seal malfunction 015AA1.22 Ability to operate and/or monitor the following as they apply to the Reactor Coolant Pump Malfunctions: RCP seal failure/malfunction. 4.0/4.2 Bank	S, D	4P
e. Switch running SX pumps – with failure to develop pressure (BOP SX-9) 076A4.01 Ability to manually operate and/or monitor in the control room: SWS pumps. 2.9/2.9 NEW	S, N, A	4S
f. Start MDCT fans and align risers w/ shut down of 2 RCFCs 022A4.01 Ability to manually operate and/or monitor in the control room: CCS fans. 3.6/3.6 Bank	S, D, EN, L, A	5

<p>g. Supply Non-ESF Bus from ESF Bus (Post-LOCA)</p> <p>062A4.01 Ability to manually operate and/or monitor in the control room: All breakers (including available switchyard). 3.3/3.1</p> <p>NEW</p>	<p>S, N, EN, L</p>	<p>6</p>																
<p>h. CW Pump trip with discharge valve failure to auto close</p> <p>075A2.02 Ability to (a) predict the impacts of the following malfunctions or operations on the Circulating Water System; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Loss of circulating water pumps. 2.5/2.7</p> <p>NEW</p>	<p>S, N, A</p>	<p>8</p>																
<p>In-Plant Systems* (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)</p>																		
<p>i. Trip Reactor outside the MCR (Open MCC breakers)</p> <p>029EA1.12 Ability to operate and monitor the following as they apply to an ATWS: M/G set power supply and reactor trip breakers. 4.1/4.0</p> <p>Modified from 2013 NRC</p>	<p>M, E, A</p>	<p>1</p>																
<p>j. Transfer instrument bus to CVT supply</p> <p>057AA1.01 Ability to operate and monitor the following as they apply to the Loss of Vital AC Instrument Bus: Manual inverter swapping. 3.7/3.7</p> <p>Bank</p>	<p>D, E</p>	<p>6</p>																
<p>k. Manual makeup to CC surge tank from backup SX system</p> <p>008K4.02 Knowledge of CCWS design feature(s) and/or interlocks which provide for the following: Operation of the surge tank, including the associated valves and controls. 2.9/2.7</p> <p>NEW</p>	<p>R, E, N, A</p>	<p>8</p>																
<p>* 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; in-plant systems and functions may overlap those tested in the control room.</p>																		
<p>* Type Codes</p>	<p>Criteria for RO / SRO-I / SRO-U</p>																	
<p>(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</p>	<table border="0"> <tr> <td style="padding-right: 20px;">6</td> <td>4-6 / 4-6 / 2-3</td> </tr> <tr> <td>6</td> <td>≤ 9 / ≤ 8 / ≤ 4</td> </tr> <tr> <td>3</td> <td>≥ 1 / ≥ 1 / ≥ 1</td> </tr> <tr> <td>4</td> <td>≥ 1 / ≥ 1 / ≥ 1 (control room system)</td> </tr> <tr> <td>3</td> <td>≥ 1 / ≥ 1 / ≥ 1</td> </tr> <tr> <td>5</td> <td>≥ 2 / ≥ 2 / ≥ 1</td> </tr> <tr> <td>1</td> <td>≤ 3 / ≤ 3 / ≤ 2 (randomly selected)</td> </tr> <tr> <td>1</td> <td>≥ 1 / ≥ 1 / ≥ 1</td> </tr> </table>		6	4-6 / 4-6 / 2-3	6	≤ 9 / ≤ 8 / ≤ 4	3	≥ 1 / ≥ 1 / ≥ 1	4	≥ 1 / ≥ 1 / ≥ 1 (control room system)	3	≥ 1 / ≥ 1 / ≥ 1	5	≥ 2 / ≥ 2 / ≥ 1	1	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)	1	≥ 1 / ≥ 1 / ≥ 1
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