

Facility: Duane Arnold Energy Center		Date of Exam: April 8, 2019				Operating Test No.: NRC 19-1												
A P P L I C A N T	E V E N T  T Y P E	Scenarios												T O T A L	M I N I M U M (*)			
		1			2			3			4							
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION							
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P					
RO <input type="checkbox"/> SRO-I <input checked="" type="checkbox"/> X SRO-U <input type="checkbox"/>	RX	1				0			1			1			3	1	1	0
	NOR	1				1			0			1			4	1	1	1
	I/C	4				4			2			5			15	4	4	2
	MAJ	1				1			1			1			4	2	2	1
	TS	2				0			0			2			4	0	2	2
RO <input type="checkbox"/> SRO-I <input checked="" type="checkbox"/> X SRO-U <input type="checkbox"/>	RX		1		1							0		1	3	1	1	0
	NOR		0		1							1		0	2	1	1	1
	I/C		2		5							6		3	16	4	4	2
	MAJ		1		1							1		1	4	2	2	1
	TS		0		2							0		0	2	0	2	2
RO <input type="checkbox"/> SRO-I <input checked="" type="checkbox"/> X SRO-U <input type="checkbox"/>	RX				0		1		1					0	1	1	1	0
	NOR				1		0		1					1	3	1	1	1
	I/C				2		3		5					2	12	4	4	2
	MAJ				1		1		1					1	4	2	2	1
	TS				0		0		2					0	2	0	2	2
RO <input type="checkbox"/> SRO-I <input type="checkbox"/> X SRO-U <input type="checkbox"/>	RX															1	1	0
	NOR															1	1	1
	I/C															4	4	2
	MAJ															2	2	1
	TS															0	2	2
Instructions: <ol style="list-style-type: none"> <li>1. Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the at-the-controls (ATC) and balance-of-plant (BOP) positions. Instant SROs (SRO-I) must serve in both the SRO and the ATC positions, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position. If an SRO-I <i>additionally</i> serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for the ATC position.</li> <li>2. Reactivity manipulations may be conducted under normal or <i>controlled</i> abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional I/C malfunctions on a one-for-one basis.</li> <li>3. Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirements specified for the applicant's license level in the right-hand columns.</li> <li>4. For new reactor facility licensees that use the ATC operator primarily for monitoring plant parameters, the chief examiner may place SRO-I applicants in either the ATC or BOP position to best evaluate the SRO-I in manipulating plant controls.</li> </ol>																		

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		1			2			3			4						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P				
RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/> X	RX	1			1			1			1			4	1	1	0
	NOR	1			1			1			1			4	1	1	1
	I/C	4			5			5			5			19	4	4	2
	MAJ	1			1			1			1			4	2	2	1
	TS	2			2			2			2			8	0	2	2
RO X <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/> X	RX		1				0		1				0	2	1	1	0
	NOR		0				1		0				1	2	1	1	1
	I/C		2				4		2				2	10	4	4	2
	MAJ		1				1		1				1	4	2	2	1
	TS		0				0		0				0	0	0	2	2
RO X <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/> X	RX			0		1				0		1		2	1	1	0
	NOR			1		0				1		0		2	1	1	1
	I/C			2		3				6		3		14	4	4	2
	MAJ			1		1				1		1		4	2	2	1
	TS			0		0				0		0		0	0	2	2
RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/> X	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
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