

Facility: Duane Arnold Energy Center			Date of Exam: June 2017			Operating Test No.: 17-1											
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			ALT						
		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				
SRO-I X	RX				2								1	1	1	0	
	NOR				1		2						2	1	1	1	
	I/C			5,6,10		3,9		3,4					5	4	4	2	
	MAJ			7,8,9		6,8		5,8,9					7	2	2	1	
	TS							3,4					2	0	2	2	
SRO-I X	RX		2										1	1	1	0	
	NOR		1		2					1			3	1	1	1	
	I/C		3,4		3,4,5				3,6,8				8	4	4	2	
	MAJ		7,8,9		6,8				5,7,9				8	2	2	1	
	TS				4,5								2	0	2	2	
SRO-I X	RX							2					1	1	1	0	
	NOR	2											1	1	1	1	
	I/C	5,6				4,5,7		4					6	4	4	2	
	MAJ	7,8,9				6,8		5,7,9					8	2	2	1	
	TS	5,6											2	0	2	2	
Instructions:																	
<ol style="list-style-type: none"> <li>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>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 instrument or component malfunctions on a one-for-one basis.</li> <li>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>For 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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		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 X	RX					2								1	1	1	0
	NOR					1				1				2	1	1	1
	I/C			5,6,10		3,9				3,6,8				8	4	4	2
	MAJ			7,8,9		6,8				5,7,9				8	2	2	1
	TS													0	0	2	2
SRO-I X	RX		2											1	1	1	0
	NOR		1			2			2					3	1	1	1
	I/C		3,4			3,4,5			3,4					7	4	4	2
	MAJ		7,8,9			6,8			5,8,9					8	2	2	1
	TS					4,5			3,4					4	0	2	2
SRO-I X	RX								2					1	1	1	0
	NOR	2												1	1	1	1
	I/C	5,6					4,5,7		4					6	4	4	2
	MAJ	7,8,9					6,8		5,7,9					8	2	2	1
	TS	5,6												2	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 instrument or component 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 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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		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		R	I	U
RO X	RX					2								1	1	1	0
	NOR					1								1	1	1	1
	I/C			5,6,10		3,9								5	4	4	2
	MAJ			7,8,9		6,8								5	2	2	1
	TS													0	0	2	2
SRO-I X	RX		2											1	1	1	0
	NOR		1		2									2	1	1	1
	I/C		3,4		3,4,5									5	4	4	2
	MAJ		7,8,9		6,8									5	2	2	1
	TS				4,5									2	0	2	2
SRO-U X	RX													0	1	1	0
	NOR	2												1	1	1	1
	I/C	5,6				4,5,7								5	4	4	2
	MAJ	7,8,9				6,8								5	2	2	1
	TS	5,6												2	0	2	2

Instructions:

- 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 *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for the ATC position.
- Reactivity manipulations may be conducted under normal or *controlled* 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 instrument or component malfunctions on a one-for-one basis.
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