

**ES-301 Transient and Event Checklist Form ES-301-5**

Facility: PINGP, Units 1 and 2      Date of Exam: May 14-25, 2012      Operating Test Number: 2012301

A P P L I C A N T	E V E N T  T Y P E	Scenarios (For Crew 1 – SRO-U <sub>1</sub> , RO <sub>1</sub> , RO <sub>2</sub> )													T O T A L	M I N I M U M(*)		
		1			2			3			4							
		CREW P O S I T I O N			CREW P O S I T I O N			CREW P O S I T I O N			CREW P O S I T I O N							
		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 <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input checked="" type="checkbox"/>	RX													0	1	1	0	
	NOR	2			2									2	1	1	1	
	I/C	3,4,5, 7			3,4,6, 7,8									9	4	4	2	
	MAJ	6			5									2	2	2	1	
	TS	2,5			3,4									4	0	2	2	
RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>	RX		1											1	1	1	0	
	NOR						2							1	1	1	1	
	I/C		3,4,5				5,6,8							6	4	4	2	
	MAJ		6				7							2	2	2	1	
	TS													0	0	2	2	
RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>	RX					2								1	1	1	0	
	NOR			1										1	1	1	1	
	I/C			5,7		1,4								4	4	4	2	
	MAJ			6		7								2	2	2	1	
	TS													0	0	2	2	
RO <input type="checkbox"/> SRO-I <input type="checkbox"/> 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:**

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 must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.
2. 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 1-for-1 basis.
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.

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A P P L I C A N T	E V E N T  T Y P E	Scenarios (For Crew 2 – SRO-U <sub>2</sub> , RO <sub>3</sub> , RO <sub>4</sub> )												T O T A L	M I N I M U M (*)		
		1			2												
		CREW P O S I T I O N			CREW P O S I T I O N			CREW P O S I T I O N			CREW P O S I T I O N						
		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 <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input checked="" type="checkbox"/>	RX												0	1	1	0	
	NOR	2			2								2	1	1	1	
	I/C	3,4,5, 7			3,4,6, 7,8								9	4	4	2	
	MAJ	6			5								2	2	2	1	
	TS	2,5			3,4								4	0	2	2	
RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>	RX		1										1	1	1	0	
	NOR						2						1	1	1	1	
	I/C		3,4,5				6,7,8						6	4	4	2	
	MAJ		6				5						2	2	2	1	
	TS												0	0	2	2	
RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>	RX					1							1	1	1	0	
	NOR			1									1	1	1	1	
	I/C			5,7		3,4							4	4	4	2	
	MAJ			6		5							2	2	2	1	
	TS												0	0	2	2	
RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>	RX														1	0	
	NOR														1	1	
	I/C														4	2	
	MAJ														2	1	
	TS														0	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 must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in 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 1-for-1 basis.
- 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.

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A P P L I C A N T	E V E N T  T Y P E	Scenarios (For Crew 3 – SRO-I <sub>1</sub> , SRO-I <sub>2</sub> , RO <sub>5</sub> )													T O T A L	M I N I M U M (*)		
		1			2			3										
		C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N							
		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 <input type="checkbox"/>	RX							2						1	1	1	0	
SRO-I <input type="checkbox"/>	NOR	2					1,2							2	1	1	1	
SRO-U <input checked="" type="checkbox"/>	I/C	3,4,5, 7					6,7,8		1,4,6					10	4	4	2	
SRO-U <input type="checkbox"/>	MAJ	6					5		7					3	2	2	1	
	TS	3,5												2	0	2	2	
RO <input type="checkbox"/>	RX		1											1	1	1	0	
SRO-I <input type="checkbox"/>	NOR				2				2,3					3	1	1	1	
SRO-U <input checked="" type="checkbox"/>	I/C		3,4,5		3,4,6, 7,8				1,4,5, 6,8					13	4	4	2	
SRO-U <input type="checkbox"/>	MAJ		6		5				7					3	2	2	1	
	TS				3,4				1,4					4	0	2	2	
RO <input checked="" type="checkbox"/>	RX					1								1	1	1	0	
SRO-I <input type="checkbox"/>	NOR			1,2						2,3				4	1	1	1	
SRO-U <input type="checkbox"/>	I/C			5,7		3,4				5,6,8				7	4	4	2	
SRO-U <input type="checkbox"/>	MAJ			6		5				7				3	2	2	1	
	TS													0	0	2	2	
RO <input type="checkbox"/>	RX														1	1	0	
SRO-I <input type="checkbox"/>	NOR														1	1	1	
SRO-U <input type="checkbox"/>	I/C														4	4	2	
SRO-U <input type="checkbox"/>	MAJ														2	2	1	
	TS														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 must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in 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 1-for-1 basis.
- 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.

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A P P L I C A N T	E V E N T  T Y P E	Scenarios (For Crew 4 – SRO-I <sub>3</sub> , RO <sub>6</sub> , SUR)													T O T A L	M I N I M U M (*)		
		1			2			3			4							
		C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N							
		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 <input type="checkbox"/>	RX					1								1	1	1	0	
SRO-I <input checked="" type="checkbox"/>	NOR	2												1	1	1	1	
SRO-U <input checked="" type="checkbox"/>	I/C	3,4,5, 7				3,4								6	4	4	2	
<input type="checkbox"/>	MAJ	6				5								2	2	2	1	
<input type="checkbox"/>	TS	3,5												2	0	2	2	
RO <input checked="" type="checkbox"/>	RX		1											1	1	1	0	
SRO-I <input checked="" type="checkbox"/>	NOR						1,2							2	1	1	1	
SRO-U <input type="checkbox"/>	I/C		3,4,5				6,7,8							6	4	4	2	
<input type="checkbox"/>	MAJ		6				5							2	2	2	1	
<input type="checkbox"/>	TS													0	0	2	2	
RO <input type="checkbox"/>	RX														1	1	0	
SRO-I <input type="checkbox"/>	NOR														1	1	1	
SRO-U <input type="checkbox"/>	I/C														4	4	2	
<input type="checkbox"/>	MAJ														2	2	1	
<input type="checkbox"/>	TS														0	2	2	
RO <input type="checkbox"/>	RX														1	1	0	
SRO-I <input type="checkbox"/>	NOR														1	1	1	
SRO-U <input type="checkbox"/>	I/C														4	4	2	
<input type="checkbox"/>	MAJ														2	2	1	
<input type="checkbox"/>	TS														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 must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in 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 1-for-1 basis.
- 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.

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A P P L I C A N T	E V E N T  T Y P E	Scenarios (For Crew 5 – SRO-I <sub>4</sub> , RO <sub>7</sub> , SUR)													T O T A L	M I N I M U M (*)		
		2			2			3			4							
		C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N							
		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 <input type="checkbox"/>	RX								2					1	1	1	0	
SRO-I <input checked="" type="checkbox"/>	NOR				2									1	1	1	1	
SRO-U <input type="checkbox"/>	I/C				3,4,6, 7,8				1,4					7	4	4	2	
	MAJ				5				7					2	2	2	1	
	TS				3,4									2	0	2	2	
RO <input checked="" type="checkbox"/>	RX					1								1	1	1	0	
SRO-I <input type="checkbox"/>	NOR									2,3				2	1	1	1	
SRO-U <input type="checkbox"/>	I/C					3,4				5,6,8				5	4	4	2	
	MAJ					5				7				2	2	2	1	
	TS													0	0	2	2	
RO <input type="checkbox"/>	RX														1	1	0	
SRO-I <input type="checkbox"/>	NOR														1	1	1	
SRO-U <input type="checkbox"/>	I/C														4	4	2	
	MAJ														2	2	1	
	TS														0	2	2	
RO <input type="checkbox"/>	RX														1	1	0	
SRO-I <input type="checkbox"/>	NOR														1	1	1	
SRO-U <input type="checkbox"/>	I/C														4	4	2	
	MAJ														2	2	1	
	TS														0	2	2	

**Instructions:**

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A P P L I C A N T	E V E N T  T Y P E	Scenarios (For Any Crew – Spare)													T O T A L	M I N I M U M (*)		
		Spare																
		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					
														R	I	U		
RO <input type="checkbox"/>	RX														0	1	1	0
SRO-I <input checked="" type="checkbox"/>	NOR	2													1	1	1	1
SRO-U <input checked="" type="checkbox"/>	I/C	1,4,5													3	4	4	2
	MAJ	3													1	2	2	1
	TS	1													1	0	2	2
RO <input checked="" type="checkbox"/>	RX		2												1	1	1	0
SRO-I <input checked="" type="checkbox"/>	NOR														0	1	1	1
SRO-U <input type="checkbox"/>	I/C		1												1	4	4	2
	MAJ		3												1	2	2	1
	TS														0	0	2	2
RO <input checked="" type="checkbox"/>	RX														0	1	1	0
SRO-I <input type="checkbox"/>	NOR			2											1	1	1	1
SRO-U <input type="checkbox"/>	I/C			4,5											2	4	4	2
	MAJ			3											1	2	2	1
	TS														0	0	2	2
RO <input type="checkbox"/>	RX															1	1	0
SRO-I <input type="checkbox"/>	NOR															1	1	1
SRO-U <input type="checkbox"/>	I/C															4	4	2
	MAJ															2	2	1
	TS															0	2	2

**Instructions:**

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