

**ES-301 Transient and Event Checklist Form ES-301-5 – Crew 1**

Facility: Clinton Power Station      Date of Exam: 1/30/17      Operating Test Number: 2017-301

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				R	I	U
		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				
RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input checked="" type="checkbox"/> <b>U1</b>	RX	7												<b>1</b>	1	1	0
	NOR	1												<b>1</b>	1	1	1
	I/C	3,5,6												<b>3</b>	4	4	2
	MAJ	8												<b>1</b>	2	2	1
	TS	2,4												<b>2</b>	0	2	2
RO <input type="checkbox"/> SRO-I <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/> <b>I1</b>	RX		7		4									<b>2</b>	1	1	0
	NOR				1					1				<b>2</b>	1	1	1
	I/C		3,4		5,6					5,6				<b>6</b>	4	4	2
	MAJ		8		7					7				<b>3</b>	2	2	1
	TS				2,3									<b>2</b>	0	2	2
RO <input type="checkbox"/> SRO-I <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/> <b>I2</b>	RX					4		2						<b>2</b>	1	1	0
	NOR			1				1						<b>2</b>	1	1	1
	I/C			5,6		3,6		4,6						<b>6</b>	4	4	2
	MAJ			8		7		7						<b>3</b>	2	2	1
	TS							3,5						<b>2</b>	0	2	2
RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/> <b>R1</b>	RX							2						<b>1</b>	1	1	0
	NOR						1							<b>1</b>	1	1	1
	I/C					2,5		3,4						<b>4</b>	4	4	2
	MAJ					7		7						<b>2</b>	2	2	1
	TS													<b>0</b>	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 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 Instant SRO *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for 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.
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.

**ES-301 Transient and Event Checklist Form ES-301-5 – Crew 2**

Facility: Clinton Power Station      Date of Exam: 1/30/17      Operating Test Number: 2017-301

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				R	I	U
		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				
RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input checked="" type="checkbox"/> <b>U2</b>	RX	7												<b>1</b>	1	1	0
	NOR	1												<b>1</b>	1	1	1
	I/C	3,5,6												<b>3</b>	4	4	2
	MAJ	8												<b>1</b>	2	2	1
	TS	2,4												<b>2</b>	0	2	2
RO <input type="checkbox"/> SRO-I <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/> <b>I3</b>	RX		7		4									<b>2</b>	1	1	0
	NOR				1					1				<b>2</b>	1	1	1
	I/C		3,4		5,6					5,6				<b>6</b>	4	4	2
	MAJ		8		7					7				<b>3</b>	2	2	1
	TS				2,3									<b>2</b>	0	2	2
RO <input type="checkbox"/> SRO-I <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/> <b>I4</b>	RX					4		2						<b>2</b>	1	1	0
	NOR			1				1						<b>2</b>	1	1	1
	I/C			5,6		3,6		4,6						<b>6</b>	4	4	2
	MAJ			8		7		7						<b>3</b>	2	2	1
	TS							3,5						<b>2</b>	0	2	2
RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/> <b>R2</b>	RX							2						<b>1</b>	1	1	0
	NOR						1							<b>1</b>	1	1	1
	I/C					2,5		3,4						<b>4</b>	4	4	2
	MAJ					7		7						<b>2</b>	2	2	1
	TS													<b>0</b>	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 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 Instant SRO *additionally* serves in the BOP position, one I/C malfunction can be credited toward the two I/C malfunctions required for 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.
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.

**ES-301 Transient and Event Checklist Form ES-301-5 – Crew 3**

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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				R	I	U
		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				
RO <input type="checkbox"/> SRO-I <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/> <b>I5</b>	RX	7						2						2	1	1	0
	NOR	1					1							2	1	1	1
	I/C	3,5,6					2,5		3,4					7	4	4	2
	MAJ	8					7		7					3	2	2	1
	TS	2,4												2	0	2	2
RO <input type="checkbox"/> SRO-I <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/> <b>I6</b>	RX		7		4									2	1	1	0
	NOR				1					1				2	1	1	1
	I/C		3,4		5,6						5,6			6	4	4	2
	MAJ		8		7						7			3	2	2	1
	TS				2,3									2	0	2	2
RO <input type="checkbox"/> SRO-I <input checked="" type="checkbox"/> SRO-U <input type="checkbox"/> <b>I7</b>	RX					4		2						2	1	1	0
	NOR			1				1						2	1	1	1
	I/C			5,6		3,6		4,6						6	4	4	2
	MAJ			8		7		7						3	2	2	1
	TS							3,5						2	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:**

- 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 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 Instant SRO *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 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.
- 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.