Control Room/In-Plant Systems Outline

Form ES-301-2

Facility: <u>Davis Besse Nuclear Power Station</u> Exam Level: RO ⊠ SRO(I) □ SRO(U) □ Date of Examination: <u>2/7/2022 to 2/18/2022</u> Operating Test No.: DB1LOT22

Control Room Systems <sup>@</sup> (8 for RO); (7 for SRO-I); (2 or 3 for SRO-I	J)
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-		Type Code*	Function	
Emergency Borate the RCS (NEW)		N, A, E	1	
Transfer LPI suctions to the Emergency Sump (	JPM291)	D, A, EN, E, L	2	
Perform Boron equalization between Pressurize Coolant System (JPM275)	r and the Reactor	D, A	3	
Trip Main Turbine IAW DB-OP-02015 15-2-E (N	EW)	N, A, E	4S	
Add water to RCS from BWST (MOD JPM187)		M, E, L	4P	
Establish CTMT Closure IAW OP6904 Shutdow	n Ops (JPM219)	D, E, EN, L	5	
S7 Failed NI, DB-OP-02505 Step 4.1.9 (NEW)		N, E	7	
S8 Start CTMT purge IAW DB-OP-06503, Section 3.3 (JPM015)		D	8	
nt Systems <sup>@</sup> (3 for RO); (3 for SRO-I); (3 or 2 for SRO	D-U)			
P1 Deenergize the Control Rod Drive in accordance with Step 3.3 of DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Tube Rupture (JPM042)		D, E	1	
P2 Perform an emergency shutdown of EDG, IAW section 5.4 of DB-OP- 06316, Diesel Generator Operating Procedure (JPM115)		D, A	6	
P3 Place the HPI alt min recirc flow path in service per Att 14 of OP2000 (JPM226)		D, E, R	2	
<ul> <li>All RO and SRO control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.</li> </ul>				
*Type Codes	Criteria for I	RO / SRO-I / SRC	)-U	
(A)Iternate Path 4-6 /4-				
(C)ontrol room (D)irect from bank ≤				
(E)mergency or abnormal in-plant ≥		1/≥1/≥1		
(EN)gineered safety feature ≥ 1		$\geq 1 / \geq 1 / \geq 1$ (control room system)		
(N)ew or (M)odified from bank including 1(A) ≥		2/≥2/≥1		
(P)revious 2 exams		3/≤3/≤2 (ran	domly selected)	
lator	≥ `	1 / ≥ 1 / ≥ 1		
	Emergency Borate the RCS (NEW) Transfer LPI suctions to the Emergency Sump (A Perform Boron equalization between Pressurize Coolant System (JPM275) Trip Main Turbine IAW DB-OP-02015 15-2-E (N Add water to RCS from BWST (MOD JPM187) Establish CTMT Closure IAW OP6904 Shutdow Failed NI, DB-OP-02505 Step 4.1.9 (NEW) Start CTMT purge IAW DB-OP-06503, Section Int Systems <sup>®</sup> (3 for RO); (3 for SRO-I); (3 or 2 for SRO Deenergize the Control Rod Drive in accordance DB-OP-02000, RPS, SFAS, SFRCS Trip or SG (JPM042) Perform an emergency shutdown of EDG, IAW so 06316, Diesel Generator Operating Procedure (A Place the HPI alt min recirc flow path in service (JPM226) All RO and SRO control room (and in-plant) system 5 SRO-U systems must serve different safety funct tested in the control room. *Type Codes nate Path rol room t from bank rgency or abnormal in-plant neered safety feature power / Shutdown or (M)odified from bank including 1(A) ious 2 exams lator	Emergency Borate the RCS (NEW) Transfer LPI suctions to the Emergency Sump (JPM291) Perform Boron equalization between Pressurizer and the Reactor Coolant System (JPM275) Trip Main Turbine IAW DB-OP-02015 15-2-E (NEW) Add water to RCS from BWST (MOD JPM187) Establish CTMT Closure IAW OP6904 Shutdown Ops (JPM219) Failed NI, DB-OP-02505 Step 4.1.9 (NEW) Start CTMT purge IAW DB-OP-06503, Section 3.3 (JPM015) nt Systems® (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U) Deenergize the Control Rod Drive in accordance with Step 3.3 of DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Tube Rupture (JPM042) Perform an emergency shutdown of EDG, IAW section 5.4 of DB-OP- 06316, Diesel Generator Operating Procedure (JPM115) Place the HPI alt min recirc flow path in service per Att 14 of OP2000 (JPM226) All RO and SRO control room (and in-plant) systems must be different and ss 5 SRO-U systems must serve different safety functions; in-plant systems and tested in the control room. Type Codes Trip Codes (Criteria for Inate Path rol room and in-plant) energed safety feature power / Shutdown or (M)odified from bank including 1(A) ous 2 exams	Emergency Borate the RCS (NEW)N, A, ETransfer LPI suctions to the Emergency Sump (JPM291)D, A, EN, E, LPerform Boron equalization between Pressurizer and the Reactor Coolant System (JPM275)D, ATrip Main Turbine IAW DB-OP-02015 15-2-E (NEW)N, A, EAdd water to RCS from BWST (MOD JPM187)M, E, LEstablish CTMT Closure IAW OP6904 Shutdown Ops (JPM219)D, E, EN, LFailed NI, DB-OP-02505 Step 4.1.9 (NEW)N, EStart CTMT purge IAW DB-OP-06503, Section 3.3 (JPM015)DDeenergize the Control Rod Drive in accordance with Step 3.3 of DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Tube Rupture (JPM042)D, E, RPerform an emergency shutdown of EDG, IAW section 5.4 of DB-OP- (JPM266)D, AAll RO and SRO control room (and in-plant) systems must be different and serve different safe 5 SRO-U systems must serve different safety functions; in-plant systems and functions may over tested in the control room. $4-6$ ( $4-6$ ( $2-3$ )*Type CodesCriteria for RO / SRO-I / SRO-I $2 / 2 / 1 \ge 1$ $4-6$ ( $4-6$ ( $2-3$ )it from bank regency or abnormal in-plant neered safety feature power / Shutdown or (Modiffed from bank including 1(A) ous 2 exams $2 / 2 / 1 \ge 1$ latorLine $2 / 2 / 1 \ge 1$	

Control Room/In-Plant Systems Outline

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Facility: <u>Davis Besse Nuclear Power Station</u> Exam Level: RO ⊠ SRO(I) □ SRO(U) □ Date of Examination: <u>2/7/2022 to 2/18/2022</u> Operating Test No.: DB1LOT22

Control Room Systems<sup>@</sup> (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U)

System / JPM Title		Type Code*	Safety Function		
S1	S1 Emergency Borate the RCS (NEW)		N, A, E	1	
S2	52 Transfer LPI suctions to the Emergency Sump (JPM291)		D, A, EN, E, L	2	
S3	Perform Boron equalization between Pressurize Coolant System (JPM275)	r and the Reactor	D, A	3	
S4	Trip Main Turbine IAW DB-OP-02015 15-2-E (N	EW)	N, A, E	4S	
S5	Add water to RCS from BWST (MOD JPM187)		M, E, L	4P	
S6	Establish CTMT Closure IAW OP6904 Shutdow	n Ops (JPM219)	D, E, EN, L	5	
S7	S7 Failed NI, DB-OP-02505 Step 4.1.9 (NEW)		N	7	
S8	S8 Start CTMT purge IAW DB-OP-06503, Section 3.3 (JPM015)		D	8	
In-Pl	ant Systems <sup>@</sup> (3 for RO); (3 for SRO-I); (3 or 2 for SRO	D-U)			
P1	P1 Deenergize the Control Rod Drive in accordance with Step 3.3 of DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Tube Rupture (JPM042)		D, E	1	
P2 Perform an emergency shutdown of EDG, IAW section 5.4 of DB-OP- 06316, Diesel Generator Operating Procedure (JPM115)		D, A	6		
P3	P3 Place the HPI alt min recirc flow path in service per Att 14 of OP2000 (JPM226)		D, E, R	2	
@	<ul> <li>All RO and SRO control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.</li> </ul>				
*Type Codes Criteria for RC			RO / SRO-I / SRO	)-U	
(A)Ite	ernate Path	4-	-6 /4-6 /2-3		
(C)ol (D)in	ntrol room ect from bank	<	9/<8/<1		
(E)mergency or abnormal in-plant ≥		1/≥1/≥1			
(EN)gineered safety feature ≥		$1 \ge 1 \ge 1 \ge 1$ (control room system)			
(L)ow-power / Shutdown ≥		1/≥1/≥1			
(N)ew or (M)odified from bank including 1(A) ≥		$2/\geq 2/\geq 1$			
(P)revious 2 exams		⊧ວ/ ≤ ວ / ≦ ∠ (ran 1 / > 1 / > 1	domly selected)		
(S)in	nulator	_	.,,		

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Control Room/In-Plant Systems Outline

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Facility: <u>Davis-Besse Nuclear Power Station</u> Exam Level: RO □ SRO(I) ⊠ SRO(U) □ Date of Examination: <u>2/7/2022 to 2/18/2022</u> Operating Test No.: DB1LOT22

Control Room Systems <sup>@</sup> (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U)					
	System / JPM Title		Type Code*	Safety Function	
S1	Emergency Borate the RCS (NEW)		N, A, E	1	
S2	Transfer LPI suctions to the Emergency Sump (	JPM291)	D, A, EN, E, L	2	
S3	S3 Perform Boron equalization between Pressurizer and the Reactor Coolant System (JPM275)		D, A	3	
S4	Trip Main Turbine IAW DB-OP-02015 15-2-E (N	EW)	N, A, E	4S	
S5	S5 Add water to RCS from BWST (MOD JPM187)		M, E, L	4P	
S6 Establish CTMT Closure IAW OP6904 Shutdown Ops (JPM219)		D, E, EN, L	5		
S7	S7 Failed NI, DB-OP-02505 Step 4.1.9 (NEW)		N, E	7	
In-Pl	ant Systems <sup>@</sup> (3 for RO); (3 for SRO-I); (3 or 2 for SR(	D-U)			
P1 Deenergize the Control Rod Drive in accordance with Step 3.3 of DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Tube Rupture (JPM042)		D, E	1		
P2	P2 Perform an emergency shutdown of EDG, IAW section 5.4 of DB-OP- 06316, Diesel Generator Operating Procedure (JPM115)		D, A	6	
P3	P3 Place the HPI alt min recirc flow path in service per Att 14 of OP2000 (JPM226)		D, E, R	2	
@	<ul> <li>All RO and SRO control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.</li> </ul>				
	*Type Codes	Criteria for	RO / SRO-I / SRC	)-U	
(A)Iternate Path		4-	-6 /4-6 /2-3		
(C)ontrol room (D)irect from bank		$\leq 9 / \leq 8 / \leq 4$			
(E)mergency or abnormal in-plant		≥1/≥1/≥1			
(EN)gineered safety feature		$\geq 1 / \geq 1 / \geq 1$ (control room system)			
(Ljow-power / Situldowi) $\leq 1/2   / 2  $ (N)ew or (M)odified from bank including 1(A) $> 2/2 / 2   > 1$					
(P)revious 2 exams			≤ 3/ ≤ 3 / ≤ 2 (ran	domly selected)	
(R)CA ≥ 1 / ≥ 1 / ≥ 1			- ,		
(S)in	(S)imulator				

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Control Room/In-Plant Systems Outline

Form ES-301-2

Facility: <u>Davis-Besse Nuclear Power Station</u> Exam Level: RO □ SRO(I) ⊠ SRO(U) □ Date of Examination: <u>2/7/2022 to 2/18/2022</u> Operating Test No.: DB1LOT22

Control Room Systems <sup>@</sup> (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U)					
	System / JPM Title		Type Code*	Safety Function	
S1	Emergency Borate the RCS (NEW)		N, A, E	1	
S2	Transfer LPI suctions to the Emergency Sump (	JPM291)	D, A, EN, E, L	2	
S3	Perform Boron equalization between Pressurize Coolant System (JPM275)	r and the Reactor	D, A	3	
S4	Trip Main Turbine IAW DB-OP-02015 15-2-E (N	EW)	N, A, E	4S	
S5	S5 Add water to RCS from BWST (MOD JPM187)		M, E, L	4P	
S6 Establish CTMT Closure IAW OP6904 Shutdown Ops (JPM219)		D, E, EN, L	5		
S7	S7 Failed NI, DB-OP-02505 Step 4.1.9 (NEW)		Ν	7	
In-Pl	ant Systems <sup>@</sup> (3 for RO); (3 for SRO-I); (3 or 2 for SR(	D-U)			
P1 Deenergize the Control Rod Drive in accordance with Step 3.3 of DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Tube Rupture (JPM042)		D, E	1		
P2	P2 Perform an emergency shutdown of EDG, IAW section 5.4 of DB-OP- 06316, Diesel Generator Operating Procedure (JPM115)		D, A	6	
P3	P3 Place the HPI alt min recirc flow path in service per Att 14 of OP2000 (JPM226)		D, E, R	2	
@	<ul> <li>All RO and SRO control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.</li> </ul>				
	*Type Codes	Criteria for	RO / SRO-I / SRC	)-U	
(A)Iternate Path		4-	-6 /4-6 /2-3		
(C)ontrol room (D)irect from bank		<	9 / ≤ 8 / ≤ 4		
(E)mergency or abnormal in-plant		$\geq 1/\geq 1/\geq 1$			
(EN)gineered safety feature		≥ ′	$\geq 1 / \geq 1 / \geq 1$ (control room system)		
(L)o\ (N)c	v-power / Shutdown w.or (M)odified from bank including 1(A)	≥ `	1 / ≥ 1 / ≥ 1 2 / > 2 / > 1		
(P)revious 2 exams		<pre>2</pre>	∠, ∠, ∠, ∠, 3/≤3/≤2 (ran	domly selected)	
(R)C	A	≥	1/≥1/≥1	, ,	
(S)in	nulator				

ES-	ES-301 Control Room/In-Plant Systems Outline		Form ES-30	1-2	
Fac Exa	ility: <u>Davis-Besse Nuclear Power Station</u> m Level: RO □ SRO(I) □ SRO(U) ⊠	s-Besse Nuclear Power StationDate of Examination: 2/7/2022 to 2/18/20RO □ SRO(I) □ SRO(U) ⊠Operating Test No.: DB1LOT22		to 2/18/2022	
Cont	trol Room Systems $^{@}$ (8 for RO); (7 for SRO-I); (2 or 3 f	or SRO-U)			
	System / JPM Title		Type Code*	Safety Function	
S4	Trip Main Turbine IAW DB-OP-02015 15-2-E (N	EW)	N, A, E	4S	
S6	Establish CTMT Closure IAW OP6904 Shutdow	n Ops (JPM219)	D, E, EN, L	5	
In-P	lant Systems <sup>@</sup> (3 for RO); (3 for SRO-I); (3 or 2 for SR	O-U)			
P1	P1 Deenergize the Control Rod Drive in accordance with Step 3.3 of DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Tube Rupture (JPM042)		D, E	1	
P2	<ul> <li>Perform an emergency shutdown of EDG, IAW section 5.4 of DB-OP- 06316, Diesel Generator Operating Procedure (JPM115)</li> </ul>		D, A	6	
P3	<ul> <li>Place the HPI alt min recirc flow path in service per Att 14 of OP2000 (JPM226)</li> </ul>		D, E, R	2	
@	<ul> <li>All RO and SRO control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.</li> </ul>				
*Type Codes Criteria for RO / SRO-I / SRO-U			)-U		
(A)Ite	(A)Iternate Path				
(D)irect from bank		2	9 / ≤ 8 / ≤ 4		
(E)mergency or abnormal in-plant		2	$\geq 1/\geq 1/\geq 1$		
(L)ow-power / Shutdown			i / ≤ i / <u>≥</u> i (contro 1 / ≥ 1 / ≥ 1	or room system)	
(N)ew or (M)odified from bank including $1(A) \ge 2$		2/≥2/≥1	develop to a N		
(P)revious 2 exams (R)CA		<u>≤</u>	≤3/≤3/≤2 (ran 1/≥1/≥1	domly selected)	
(S)in	nulator	_	.,,		

ES-	ES-301 Control Room/In-Plant Systems Outline		Form ES-30	1-2	
Fac Exa	ility: <u>Davis-Besse Nuclear Power Station</u> m Level: RO □ SRO(I) □ SRO(U) ⊠	s-Besse Nuclear Power StationDate of Examination: 2/7/2022 to 2/18/20RO □ SRO(I) □ SRO(U) ⊠Operating Test No.: DB1LOT22		to 2/18/2022	
Cont	trol Room Systems $^{@}$ (8 for RO); (7 for SRO-I); (2 or 3 f	or SRO-U)			
	System / JPM Title		Type Code*	Safety Function	
S4	Trip Main Turbine IAW DB-OP-02015 15-2-E (N	EW)	N, A, E	4S	
S6	Establish CTMT Closure IAW OP6904 Shutdow	n Ops (JPM219)	D, E, EN, L	5	
In-P	lant Systems <sup>@</sup> (3 for RO); (3 for SRO-I); (3 or 2 for SR	O-U)			
P1	P1 Deenergize the Control Rod Drive in accordance with Step 3.3 of DB-OP-02000, RPS, SFAS, SFRCS Trip or SG Tube Rupture (JPM042)		D, E	1	
P2	<ul> <li>Perform an emergency shutdown of EDG, IAW section 5.4 of DB-OP- 06316, Diesel Generator Operating Procedure (JPM115)</li> </ul>		D, A	6	
P3	<ul> <li>Place the HPI alt min recirc flow path in service per Att 14 of OP2000 (JPM226)</li> </ul>		D, E, R	2	
@	<ul> <li>All RO and SRO control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.</li> </ul>				
*Type Codes Criteria for RO / SRO-I / SRO-U			)-U		
(A)Ite	(A)Iternate Path				
(D)irect from bank		2	9 / ≤ 8 / ≤ 4		
(E)mergency or abnormal in-plant		2	$\geq 1/\geq 1/\geq 1$		
(L)ow-power / Shutdown			i / ≤ i / <u>≥</u> i (contro 1 / ≥ 1 / ≥ 1	or room system)	
(N)ew or (M)odified from bank including $1(A) \ge 2$		2/≥2/≥1	denotes de la R		
(P)revious 2 exams (R)CA		<u>≤</u>	≤3/≤3/≤2 (ran 1/≥1/≥1	domly selected)	
(S)in	nulator	_	.,,		