

SDCS FLOW PATH ALIGNMENT

TCN 4-1

MODE: Defueled

1985 JUL - DATE 11/19/84 85

INITIALS

1.0 PREREQUISITES

1.1 Prior to use of an uncontrolled (pink) copy of this Station Document to perform work, verify that it is current by checking a controlled copy and any TCNs or by use of the method described in S0123-VI-0.9.

AT

1.1.1 List all applicable TCNs or write N.A.

N/A

1.2 On-shift SRO Operations Supervisor approval obtained. (SRO Ops. Supv. Initials)

[Signature]

1.3 The key-operated handswitches for all components marked (1) have been positioned to reflect the actual component position.

[Signature]

NOTES: (1) Key-operated handswitch, ensure handswitch position matches actual valve position prior to closing breaker.

(2) This valve may require repositioning to meet the requirements of this Attachment. Contact the C.O. for approval.

CAUTION

If a valve in the Attachment requires repositioning, then contact the C.O. for approval prior to repositioning.

2.0 PROCEDURE

STEP	COMPONENT	DESCRIPTION	NOTES	REQUIRED STATUS	INITIALS PERF/VERIF/IND VER
2.1 ELECTRICAL ALIGNMENT					
2.1.1	2BE-38	2HV-8150 supply breaker	(1)	CLOSED ESF LOCK	<u>②</u>
2.1.2	2BE-39	2HV-8152 supply breaker	(1)	CLOSED ESF LOCK	<u>L</u> <u>AT</u> <u>g</u>
2.1.3	2BE-29	2HV-9367 supply breaker		LOCKED OPEN ESF LOCK	<u>[Signature]</u> <u>[Signature]</u> <u>L</u>

*Inspector's  
writing*  
*0 LOCK*  
*LOSED*  
*Inspector's  
writing*

TCN 4-1

2.0 PROCEDURE (Continued)

CLOSED

STEP	COMPONENT	DESCRIPTION	NOTES
2.1.4	2BJ-25	2HV-9368 supply breaker	
2.1.5	2BZ-35	2HV-8151 supply breaker	(1)
2.1.6	2BZ-36	2HV-8153 supply breaker	(1)
2.1.7	2BRA15	2HV-8161 supply breaker	
2.1.8	2BRA16	2HV-8163 supply breaker	
2.1.9	2BRB15	2HV-8160 supply breaker	
2.1.10	2BRB16	2HV-8162 supply breaker	
2.1.11	2BY27	2HV-9353 supply breaker	(3)
2.1.12	2BZ-35	2HV-9359 supply breaker	(3)

REQUIRED STATUS INITIALS  
PERF/VERIF/IND VER

LOCKED  
OPEN  
ESF LOCK

CLOSED

CLOSED

CLOSED

CLOSED

CLOSED

CLOSED

OPEN/  
CLOSED

OPEN/  
CLOSED

2.2 VALVE ALIGNMENT

NOT LOCKED

2.2.1	S21206MU012	CNTMT Spray 2P-012 discharge to SDC HX 2E-004	(2)
2.2.2	S21206MU014	CNTMT Spray 2P-013 discharge to SDC HX 2E-003	(2)

LOCKED  
CLOSED  
ESF LOCK

LOCKED  
CLOSED  
ESF LOCK

NOTES:

- (1) Key operated handswitch, ensure handswitch position matches actual valve position prior to closing breaker.
- (2) This valve may require repositioning to meet the requirements of the Attachment. Contact the C.O. for approval.
- (3) C.O. shall select one (1) SDC Warmup Recirculation Valve (2HV-9353 or 2HV-9359) then unlock and close its supply breaker. Select open or close by circling the appropriate position, and write valve number in procedure step 6.1.7 (page 11 of this instruction) and write breaker number in procedure step 6.1.9.5 (page 13 of this instruction).

TCN 4-1

2.0 PROCEDURE (Continued)

STEP	COMPONENT	DESCRIPTION	NOTES	REQUIRED STATUS	INITIALS PERF/VERIF/IND VER
2.2.3	S21204MU022	LPSI 2P-015 suction from RWST	(2)	LOCKED CLOSED ESF LOCK	<u>Lw</u> <u>AT</u> <u>WV</u>
2.2.4	S21204MU022	Integral Bypass		LOCKED CLOSED ESF LOCK	<u>Lw</u> <u>AT</u> <u>WV</u>
2.2.5	S21204MU023	LPSI 2P-016 suction from RWST	(2)	LOCKED CLOSED ESF LOCK	<u>Lw</u> <u>AT</u> <u>WV</u>
2.2.6	S21204MU023	Integral Bypass		LOCKED CLOSED ESF LOCK	<u>Lw</u> <u>AT</u> <u>WV</u>
2.2.7	S21206MU005	SDC HX 2E-003 out- let to CNTMT Spray header (when RCS is less than 350°F)	(2)	LOCKED CLOSED ESF LOCK	<u>Lw</u> <u>AT</u> <u>WV</u>
2.2.8	S21206MU003	SDC HX 2E-004 outlet to CNTMT Spray header (when RCS is less than 350°F)	(2)	LOCKED CLOSED ESF LOCK	<u>Lw</u> <u>AT</u> <u>WV</u>
2.2.9	S21204MU025	2P-016 Discharge	(2)	LOCKED OPEN ESF LOCK	<u>Lw</u> <u>AT</u> <u>WV</u>
2.2.10	S21201MU018	2P-016 Suction from SDC System	(2)	LOCKED OPEN ESF LOCK	<u>Lw</u> <u>AT</u> <u>WV</u>
2.2.11	S21201MU018	Integral Bypass		LOCKED CLOSED ESF LOCK	<u>Lw</u> <u>AT</u> <u>WV</u>
2.2.12	S21204MU024	2P-015 Discharge	(2)	LOCKED OPEN ESF LOCK	<u>Lw</u> <u>AT</u> <u>WV</u>
2.2.13	S21201MU015	2P-015 Suction from SDC System	(2)	LOCKED OPEN ESF LOCK	<u>Lw</u> <u>AT</u> <u>WV</u>

NOTE: (2) This valve may require repositioning to meet the requirements of this Attachment. Contact the C.O. for approval.

TCN 4-1

2.0 PROCEDURE (Continued)

STEP	COMPONENT	DESCRIPTION	NOTES
2.2.14	S21201MU015	Integral Bypass	

REQUIRED STATUS	INITIALS	PERF/VERIF/IND VER
LOCKED		
CLOSED		
ESF LOCK		

LOCKED  
CLOSED  
ESF LOCK

2.3 CONTROL BOARD

✓ 2.3.1 2HV-9335 Safety Injection Tank Drain Header RCS Dr. Tk. Iso.

CLOSED

JR wait

2.3.2 2HV-9334 Safety Injection Tank Drain Header ROST

CLOSED

AT

✓ 2.3.3 2HV-9341 RCS Check Valve Leakage Drain

CLOSED

JF wait

2.3.4 2HV-9351 RCS Check Valve Leakage Drain

CLOSED

AT

2.3.5 2HV-9361 RCS Check Valve Leakage Drain

CLOSED

AT

✓ 2.3.6 2HV-9371 RCS Check Valve Leakage Drain

CLOSED

JF wait

PERFORMED BY:

*[Signature]*  
Operator

*[Signature]*  
Initials

DATE/TIME

1/9/85 1400

VERIFIED BY:

*[Signature]*  
Operator

*[Signature]*  
Initials

DATE/TIME

1/9/85 1400

INDEPENDENTLY VERIFIED BY:

*[Signature]*  
Operator

*[Signature]*  
Initials

DATE/TIME

1/9/85 1450

NOTE: SRO Ops. Supv. shall not sign "Reviewed By" until all comments in relation to this Attachment have been resolved i.e., TCNs written and incorporated, caps and flanges installed for Safety Systems, locks and chains in place, etc.

REVIEWED BY:

*[Signature]*  
SRO Ops. Supv.

DATE:

1-9-85 2200

FILE DISPOSITION: File per SC23-0-28.

COMMENTS:

(1) value does not exist - TCN Submitted (4-2-Hatched)

(2) 2.1.1 2HV 38 A.T.D. water removed - 1/9/85

TCN 4-2

2.0 PROCEDURE (Continued)

TCN	STEP	COMPONENT	DESCRIPTION	NOTES	REQUIRED STATUS	INITIALS PERF/VERIF/IND VER
3	CONTROL BOARD					
	2.3.1	2HV-9335	Safety Injection Tank Drain Header RCS Dr. Tk. Iso.		CLOSED	_____
	2.3.2	2HV-9334	Safety Injection Tank Drain Header RWST		CLOSED	_____
	2.3.3	2HV-9341	RCS Check Valve Leakage Drain		CLOSED	_____
	2.3.4	2HV-9351	RCS Check Valve Leakage Drain		CLOSED	_____
	2.3.5	2HV-9361	RCS Check Valve Leakage Drain		CLOSED	_____
	2.3.6	2HV-9371	RCS Check Valve Leakage Drain		CLOSED	_____

PERFORMED BY: \_\_\_\_\_ / \_\_\_\_\_ DATE/TIME \_\_\_\_\_ / \_\_\_\_\_  
Operator Initials

VERIFIED BY: \_\_\_\_\_ / \_\_\_\_\_ DATE/TIME \_\_\_\_\_ / \_\_\_\_\_  
Operator Initials

INDEPENDENTLY  
VERIFIED BY: \_\_\_\_\_ / \_\_\_\_\_ DATE/TIME \_\_\_\_\_ / \_\_\_\_\_  
Operator Initials

NOTE: SRO Ops. Supv. shall not sign "Reviewed By" until all comments in relation to this Attachment have been resolved i.e., TCNs written and incorporated, caps and flanges installed for Safety Systems, locks and chains in place, etc.

REVIEWED BY: M. Jones (i) DATE: 1/7/85 1300  
SRO Ops. Supv.

FILE DISPOSITION: File per S023-0-28.

COMMENTS: (i) STOP 2-214 omitted on TCN 4-2

SDCS FLOW PATH ALIGNMENT

TCN 4-1

MODE: Defueled

DATE: 1/9/84 <sup>HS</sup> 85

1.0 PREREQUISITES

INITIALS

- 1.1 Prior to use of an uncontrolled (pink) copy of this Station Document to perform work, verify that it is current by checking a controlled copy and any TCNs or by use of the method described in S0123-VI-0.9.

AT

- 1.1.1 List all applicable TCNs or write N.A.

N/A

- 1.2 On-shift SRO Operations Supervisor approval obtained.  
(SRO Ops. Supv. Initials)

[Signature]

- 1.3 The key-operated handswitches for all components marked (1) have been positioned to reflect the actual component position.

[Signature]

NOTES: (1) Key-operated handswitch, ensure handswitch position matches actual valve position prior to closing breaker.

(2) This valve may require repositioning to meet the requirements of this Attachment. Contact the C.O. for approval.

CAUTION

If a valve in the Attachment requires repositioning, then contact the C.O. for approval prior to repositioning.

2.0 PROCEDURE

*Inspector's  
to verify  
0 LOCK*

**LOSED**

*Inspector's  
to verify*

STEP	COMPONENT	DESCRIPTION	NOTES	REQUIRED STATUS	INITIALS PERF/VERIF/IND VER
2.1	<u>ELECTRICAL ALIGNMENT</u>				
2.1.1	2BE-38	2HV-8150 supply breaker	(1)	CLOSED ESF LOCK	<u>②</u>
2.1.2	2BE-39	2HV-8152 supply breaker	(1)	CLOSED ESF LOCK	<u>L</u> <u>AT</u> <u>gh</u>
2.1.3	2BE-29	2HV-9367 supply breaker		LOCKED OPEN ESF LOCK	<u>[Signature]</u> <u>[Signature]</u> <u>L</u>



2.0 PROCEDURE (Continued)

	STEP	COMPONENT	DESCRIPTION	NOTES	REQUIRED STATUS	INITIALS PERF/VERIF/IND VER
<b>CLOSED</b>	2.1.4	2BJ-25	2HV-9368 supply breaker		LOCKED OPEN ESF LOCK	<i>[Signature]</i>
	2.1.5	2BZ-35	2HV-8151 supply breaker	(1)	CLOSED	<i>[Signature]</i>
	2.1.6	2BZ-36	2HV-8153 supply breaker	(1)	CLOSED	<i>[Signature]</i>
	2.1.7	2BRA15	2HV-8161 supply breaker		CLOSED	<i>[Signature]</i>
	2.1.8	2BRA16	2HV-8163 supply breaker		CLOSED	<i>[Signature]</i>
	2.1.9	2BRB15	2HV-8160 supply breaker		CLOSED	<i>[Signature]</i>
	2.1.10	2BRB16	2HV-8162 supply		CLOSED	<i>[Signature]</i>
<b>LOCKED</b>	2.1.11	2BY27	2HV-9353 supply breaker	(3)	OPEN/ CLOSED	<i>[Signature]</i>
	2.1.12	2BY28	2HV-9359 supply breaker	(3)	OPEN/ CLOSED	<i>[Signature]</i>
	2.2	VALVE ALIGNMENT				
<b>NOT LOCKED</b>	2.2.1	S21206MU012	CNTMT Spray 2P-012 discharge to SDC HX 2E-004	(2)	LOCKED CLOSED ESF LOCK	<i>[Signature]</i>
	2.2.2	S21206MU014	CNTMT Spray 2P-013 discharge to SDC HX 2E-003	(2)	LOCKED CLOSED ESF LOCK	<i>[Signature]</i>

- NOTES:
- (1) Key operated handswitch, ensure handswitch position matches actual valve position prior to closing breaker.
  - (2) This valve may require repositioning to meet the requirements of the Attachment. Contact the C.O. for approval.
  - (3) C.O. shall select one (1) SDC Warmup Recirculation Valve (2HV-9353 or 2HV-9359) then unlock and close its supply breaker. Select open or close by circling the appropriate position, and write valve number in procedure step 6.1.7 (page 11 of this instruction) and write breaker number in procedure step 6.1.9.5 (page 13 of this instruction).

TCN 4-1

2.0 PROCEDURE (Continued)

STEP	COMPONENT	DESCRIPTION	NOTES	REQUIRED STATUS	INITIALS PERF/VERIF/IND VER
2.2.3	S21204MU022	LPSI 2P-015 suction from RWST	(2)	LOCKED CLOSED ESF LOCK	<u>L</u> <u>AT</u> <u>W</u>
2.2.4	S21204MU022	Integral Bypass		LOCKED CLOSED ESF LOCK	<u>L</u> <u>AT</u> <u>W</u>
2.2.5	S21204MU023	LPSI 2P-016 suction from RWST	(2)	LOCKED CLOSED ESF LOCK	<u>L</u> <u>AT</u> <u>W</u>
2.2.6	S21204MU023	Integral Bypass		LOCKED CLOSED ESF LOCK	<u>L</u> <u>AT</u> <u>W</u>
2.2.7	S21206MU005	SDC HX 2E-003 out- let to CNTMT Spray header (when RCS is less than 350°F)	(2)	LOCKED CLOSED ESF LOCK	<u>L</u> <u>AT</u> <u>W</u>
2.2.8	S21206MU003	SDC HX 2E-004 outlet to CNTMT Spray header (when RCS is less than 350°F)	(2)	LOCKED CLOSED ESF LOCK	<u>L</u> <u>AT</u> <u>W</u>
2.2.9	S21204MU025	2P-016 Discharge	(2)	LOCKED OPEN ESF LOCK	<u>L</u> <u>AT</u> <u>W</u>
2.2.10	S21201MU018	2P-016 Suction from SDC System	(2)	LOCKED OPEN ESF LOCK	<u>L</u> <u>AT</u> <u>W</u>
2.2.11	S21201MU018	Integral Bypass		LOCKED CLOSED ESF LOCK	<u>L</u> <u>AT</u> <u>W</u>
2.2.12	S21204MU024	2P-015 Discharge	(2)	LOCKED OPEN ESF LOCK	<u>L</u> <u>AT</u> <u>W</u>
2.2.13	S21201MU015	2P-015 Suction from SDC System	(2)	LOCKED OPEN ESF LOCK	<u>L</u> <u>AT</u> <u>W</u>

NOTE: (2) This valve may require repositioning to meet the requirements of this Attachment. Contact the C.O. for approval.



TCN 4-1

## 2.0 PROCEDURE (Continued)

STEP	COMPONENT	DESCRIPTION	NOTES
2.2.14	521201MU015	Integral Bypass	

REQUIRED STATUS	INITIALS	PERF/VERIF/IND VER
LOCKED		
CLOSED		
ESF LOCK		

LOCKED  
CLOSED  
ESF LOCK

*MVC 1/5/85*  
*AT*

## 2.3 CONTROL BOARD

✓ 2.3.1 2HV-9335 Safety Injection  
Tank Drain Header  
RCS Dr. Tk. Iso.

CLOSED

*JF* *well* *me*

2.3.2 2HV-9334 Safety Injection  
Tank Drain Header RUST

CLOSED

*AT* *AT* *AT*

✓ 2.3.3 2HV-9341 RCS Check Valve  
Leakage Drain

CLOSED

*JF* *well* *me*

2.3.4 2HV-9351 RCS Check Valve  
Leakage Drain

CLOSED

*AT* *AT* *me*

2.3.5 2HV-9361 RCS Check Valve  
Leakage Drain

CLOSED

*AT* *AT* *me*

✓ 2.3.6 2HV-9371 RCS Check Valve  
Leakage Drain

CLOSED

*JF* *well* *me*

PERFORMED BY:

Operator

Initials

DATE/TIME

1/9/85 1400

VERIFIED BY:

Operator

Initials

DATE/TIME

1/9/85 1400

INDEPENDENTLY  
VERIFIED BY:

Operator

Initials

DATE/TIME

1/9/85 1450

NOTE: SRO Ops. Supv. shall not sign "Reviewed By" until all comments in relation to this Attachment have been resolved i.e., TCNs written and incorporated, caps and flanges installed for Safety Systems, locks and chains in place, etc.

REVIEWED BY:

SRO Ops. Supv.

DATE:

1-9-85 2200

FILE DISPOSITION: File per SO23-0-28.

COMMENTS: (1) *AT* *well* *me* - TCN Submitted (4-2-85)

(2) 2.1.1 *AT* *well* *me* - *AT* *well* *me* - *AT* *well* *me*

TCN 4-2

2.0 PROCEDURE (Continued)

TCN	STEP	COMPONENT	DESCRIPTION	NOTES	REQUIRED STATUS	INITIALS	
						PERF	VERIF/IND VER
	2.3	<u>CONTROL BOARD</u>					
	2.3.1	2HV-9335	Safety Injection Tank Drain Header RCS Dr. Tk. Iso.		CLOSED	_____	_____
	2.3.2	2HV-9334	Safety Injection Tank Drain Header RWST		CLOSED	_____	_____
	2.3.3	2HV-9341	RCS Check Valve Leakage Drain		CLOSED	_____	_____
	2.3.4	2HV-9351	RCS Check Valve Leakage Drain		CLOSED	_____	_____
	2.3.5	2HV-9361	RCS Check Valve Leakage Drain		CLOSED	_____	_____
	2.3.6	2HV-9371	RCS Check Valve Leakage Drain		CLOSED	_____	_____

PERFORMED BY: \_\_\_\_\_ / \_\_\_\_\_ DATE/TIME \_\_\_\_\_ / \_\_\_\_\_  
Operator Initials

VERIFIED BY: \_\_\_\_\_ / \_\_\_\_\_ DATE/TIME \_\_\_\_\_ / \_\_\_\_\_  
Operator Initials

INDEPENDENTLY  
VERIFIED BY: \_\_\_\_\_ / \_\_\_\_\_ DATE/TIME \_\_\_\_\_ / \_\_\_\_\_  
Operator Initials

NOTE: SRO Ops. Supv. shall not sign "Reviewed By" until all comments in relation to this Attachment have been resolved i.e., TCNs written and incorporated, caps and flanges installed for Safety Systems, locks and chains in place, etc.

REVIEWED BY: M. Jones (i) DATE: 1/7/85 2300  
SRO Ops. Supv.

FILE DISPOSITION: File per SO23-0-28.

COMMENTS: (i) STOP 2.214 omitted on TCN 4-2