

ATTACHMENT 3-5I  
APPENDIX R EVALUATION REPORT – THREE MILE ISLAND UNIT 1  
COMPONENT AVAILABILITY FOR A FIRE IN FIRE AREA/ZONE

SHEET 1a

COMPONENTS	DECAY HEAT REMOVAL																												REMARKS						
	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	I	A	C	C	C	C	C	C	C	C		C	C	C			
	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	I	I	B	B	B	B	B	B	B	B	B		B	B	B			
	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	T	T	F	F	F	F	F	F	F	F		F	F	F			
	A	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	F	F	A	A	A	A	A	A	A		A	A	A	Z	Z	
	1	2	1	2	2	2	3	4	5	6	6	7	8	9	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	4	4	5	5
				a	b	c					a				0	1			a		a	b	c	d	e	f	g	a	b	c	d	a	b	a	b
DH-P-1A	X							X	X								S		X	X	R		S		S		X		X	X		X			Train A
DH-P-1B		X				X	X		R	S							S				X	X		S		S		X	R	R	S	S	D	D	Train B
DH-V-1																						M		M				M	M		M				Train X
DH-V-2																						M		M				M	M		M				Train X – Power Removed
DH-V-3								M														M		M				M	M		M				Train X
DH-V-4A								X		M									X	X	M		X		S		X		X	X		X			Train A
DH-V-4B								M	M	S	M										X	X	M	S	M	S		X	M	M		M			Train B
DH-V-7A								X		M									X	X							X			X		X			Train A
DH-V-7B								M	M	S	M										X	X	M	S	M	S		S		M		M			Train B
BS-V-3A	X							X	X	M									X	X	M		X		S		X		X	X		X			Train A
BS-V-3B		X							M	S	M										X	X	M	S	M	S		X	M	M		M			Train B

LEGEND

X – Component Not Available	D – Design Modification
S – Support Not Available	RSD – Remote Shut Down
P – Available–Cable Protected	O – Open Switch or Breaker
M – Available–Manual Operation	R – Repair
A – Manual Op. Due to Loss of Inst. Air	M* – Manual operation may be challenged by specific hot short

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SHEET 1b

COMPONENTS		DECAY HEAT REMOVAL																				REMARKS								
		D	D	F	F	F	F	F	F	I	I	I	I	I	I	I	I	I	I	R	R					R	R	R	R	T
		G	G	H	H	H	H	H	H	B	B	B	B	B	B	B	B	B	B	B	B					B	B	B	B	B
		F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F					F	F	F	F	F
		A	A	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z					Z	Z	Z	Z	A
		1	2	1	2	3	4	5	6	1	2	3	4	5	6	7	8	F	F	F	F	1	1	1	1	2	3	1		
																		2	1	2	3	a	b	c	d	e				
DH-P-1A	S		X					X										S										Train A		
DH-P-1B		S	R	X			X												S									Train B		
DH-V-1			M				M														M	M	M		M	M		M	Train X	
DH-V-2			M	M			M														M	M	M			M		M	Train X – Power Removed	
DH-V-3			M				M																					M	Train X	
DH-V-4A	S		X					X																					Train A	
DH-V-4B		S	M	X			X																						Train B	
DH-V-7A			X					X																					Train A	
DH-V-7B		S	M	X			X																						Train B	
BS-V-3A	S		X					X																					Train A	
BS-V-3B		S	M	X			X																						Train B	

LEGEND

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ATTACHMENT 3-5J  
APPENDIX R EVALUATION REPORT – THREE MILE ISLAND UNIT 1  
COMPONENT AVAILABILITY FOR A FIRE IN FIRE AREA/ZONE

SHEET 1a

COMPONENTS	INTERMEDIATE COOLING																												REMARKS						
	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A		A	A	A			
	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B		B	B	B			
	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F			
	1	2	1	2	2	2	3	4	5	6	6	7	8	9	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	4	4	5	5
				a	b	c					a				0	1		a		a	b	c	d	e	f	g	a	b	c	d	a	b	a	b	
IC-P-1A								X	P			X							X	X	D/M		X		S		S		S	X		X		Train X. Manually Place 69 Switch in “EMERG” at 1A ES MCC.	
IC-P-1B										X		X							P	RSD	X		P	X	P	X		S	RSD	RSD		RSD		Train X	
IC-V-1A								X	X	X	X												X	X	X					X		X		Train X	
IC-V-1B								X	X	X				X									X	X	X					X		X		Train X	
IC-V-2									P/M	M**	RSD	M**									M	M		M		M		M	RSD	RSD		RSD		Train B.	
IC-V-3 (Note 1)	A	A					A	P/M	A	RSD / A	M			M	A				RSD / A	RSD	O		RSD / A	RSD / A				O	RSD	RSD		RSD		Train A. O = Open 1E DC Panel Switch #15. Valve will close as soon as 120 minutes after loss of air.	
IC-V-4 (Note 1)	A	A					A	P/A	A	RSD / A	M	X		M	A				RSD / A	RSD	O	M	RSD / A	RSD / A	O	P	O	RSD	RSD		RSD		Train C. O = Open 1M DC Panel Switch #5. Valve will close as soon as 120 minutes after loss of air.		

LEGEND

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P – Available–Cable Protected  
M – Available–Manual Operation  
A – Manual Op. Due to Loss of Inst. Air

D – Design Modification  
RSD – Remote Shut Down  
O – Open Switch or Breaker  
R – Repair  
M\*\* – Manual operation may be challenged by a specific hot short/spurious operation combined with a short to ground

Note 1: Spurious closure of IC-V-3 and IC-V-4 due to spurious ESAS initiation for a fire in AB-FZ-6, AB-FZ-6a, AB-FZ-9, CB-FA-1, CB-FA-2a, CB-FA-2d, CB-FA-2f, CB-FA-3c, CB-FA-3d, or CB-FA-4b can be corrected at RSD or by manually opening the valves.  
Spurious closure of IC-V-2 due to spurious ESAS initiation for a fire in AB-FZ-6, CB-FA-3c, CB-FA-3d, or CB-FA-4b can be corrected at RSD or by manually opening the valve.

ATTACHMENT 3-5J  
APPENDIX R EVALUATION REPORT – THREE MILE ISLAND UNIT 1  
COMPONENT AVAILABILITY FOR A FIRE IN FIRE AREA/ZONE

SHEET 1b

COMPONENTS	INTERMEDIATE COOLING																											
	D	D	F	F	F	F	F	F	I	I	I	I	I	I	I	I	I	I	R	R	R	R	R	R	R	T		
	G	G	H	H	H	H	H	H	B	B	B	B	B	B	B	B	S	S	S	S	B	B	B	B	B	B	B	
	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	H	H	H	H	F	F	F	F	F	F	F	
	A	A	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	A	Z	Z	Z	Z	Z	A	Z	Z	Z	A	
	1	2	1	2	3	4	5	6	1	2	3	4	5	6	7	8	F	F	F	F	1	1	1	1	1	2	3	1
																	A	Z	Z	Z	a	b	c	d	e			
																	2	1	2	3								
REMARKS																												
IC-P-1A	S		X					X																				Train X. Manually place 69 switch in "EMERG" at 1A ES MCC.
IC-P-1B		S		X																								Train X
IC-V-1A				X			X														X							Train X
IC-V-1B				X			X														X							Train X
IC-V-2			P / R S D	P / R S D			P / R S D															M**						Train B
IC-V-3 (Note 1)		A	R S D / A	R S D / A	A	A	R S D	P	A	A	A	A	A	A	A	A	A	A	A							A		Train A. O = Open 1E DC Panel Switch #15. Valve will close as soon as 120 minutes after loss of air.
IC-V-4 (Note 1)		A	R S D / A	R S D / A	A	A	R S D	P	A	A	A	A	A	A	A	A	A	A	A							A		Train C. O = Open 1M DC Panel Switch #5. Valve will close as soon as 120 minutes after loss of air.

LEGEND

X – Component Not Available  
S – Support Not Available  
P – Available–Cable Protected  
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A – Manual Op. Due to Loss of Inst. Air

D – Design Modification  
RSD – Remote Shut Down  
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R – Repair  
M\*\* – Manual operation may be challenged by :  
specific hot short/spurious operation  
combined with a short to ground

Note 1: Spurious closure of IC-V-3 and IC-V-4 due to spurious initiation of ESAS for a fire in FH-FZ-1, FH-FZ-2 and FH-FZ-5, can be corrected at RSD or by opening switches or by manual opening of the valves.  
Spurious closure of IC-V-2 due to spurious ESAS initiation for a fire in FH-FZ-1, FH-FZ-2, or FH-FZ-5 can be corrected at RSD or by manually opening the valve.