

NUCLEAR STATION PROCEDURE ROUTING

(TRANSMITTAL RECEIPT)

72

Register No. 4-26-94
(3W)

REMOVE: DSSP 0010-01 Rev. 03

INSERT: DSSP 0010-01 Rev. 04

(Sign and return this form to the DOSR CLERK.)

I hereby acknowledge receipt of the above.

Signed _____ Date _____

150128

9411150446 940906
PDR ADDCK 05000237
F PDR

ZW/4940

AD45 0/1

FORM 09-02B
PROCEDURE HISTORY

Procedure Number: DSSP/0010-01* Rev. No.: 04

Posted Procedure Locations: Safe Shutdown Cart

Supportive References (letters, temporary change request, commitments, analysis): Request from K. Housh

Subject experts or other personnel contacted: _____

NOTE

At a minimum, the Procedure History should include a detailed listing AND justification for each step added, deleted, or revised. Punctuation and spelling corrections need not be individually listed.

Description and JUSTIFICATION for procedure or change: Correct typos in Figure 1 and Figure (Fig 1, change MCC 29-1 to 28-1; Fig 2, Change MCC 29-1 to MCC 38-1 and 39-1). Added MCC 29-4 as this is in fire area. Changed EPIP 200-T1 to 0200-01. EIPs were recently revised. This change reflects the new procedure numbers.

DSSP
DRESDEN SAFE SHUTDOWN PROCEDURES

<u>Proc.</u>		<u>Rev.</u>	<u>DOSR</u>	<u>Review</u>
<u>No.</u>	<u>Title</u>	<u>No.</u>	<u>Date</u>	<u>Date</u>
*0010-01	Determining Safe Shutdown Paths for Extensive Plant Damage (Safe Shutdown Cart)	Rev. 04	9/94	9/96
*0100-A	Hot Shutdown Procedure - Path A (Safe Shutdown Cart)	Rev. 07	7/94	7/96
*0100-A1	Hot Shutdown Procedure - Path A-1 (Safe Shutdown Cart)	Rev. 06	7/94	7/96
*0100-B	Hot Shutdown Procedure - Path B (Safe Shutdown Cart)	Rev. 06	7/94	7/96
*0100-B1	Hot Shutdown Procedure - Path B1 (Safe Shutdown Cart)	Rev. 06	7/94	7/96
*0100-A2/B2	Hot Shutdown Procedure - Path A2/B2 (Safe Shutdown Cart)	Rev. 07	7/94	7/96
*0100-C	Hot Shutdown Procedure - Path C (Safe Shutdown Cart)	Rev. 06	7/94	7/96
*0100-CR	Hot Shutdown Procedure - Control Room Evacuation (Safe Shutdown Cart)	Rev. 05	7/94	7/96
*0100-D	Hot Shutdown Procedure - Path D (Safe Shutdown Cart)	Rev. 05	7/94	7/96
*0100-E	Hot Shutdown Procedure - Path E (Safe Shutdown Cart)	Rev. 08	7/94	7/96
100-E1	Hot Shutdown Procedure Path E1	DELETE	4/88	
*0100-F	Hot Shutdown Procedure - Path F (Safe Shutdown Cart)	Rev. 06	7/94	7/96
100-F1	Hot Shutdown Procedure Path F1	DELETE	4/88	
*0200-L	LPCI/CCSW Cold Shutdown Method (Safe Shutdown Cart)	Rev. 03	7/94	7/96
*0200-S	SDC Cold Shutdown Method (Safe Shutdown Cart)	Rev. 04	7/94	7/96

SEP 06 1994

DETERMINING SAFE SHUTDOWN PATHS FOR EXTENSIVE PLANT DAMAGE

Requirements:

1. 10 CFR 50, Appendix R.
 2. 10 CFR 50.54.
 3. Safe Shutdown Report, Dresden Units 2 and 3 (Fire Protection Program Documentation Package, Volume 3, Book 1).
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Special Controls/Reviews:

Posted Procedure - This is a Controlled Posted Procedure. Any authorized change will be brought to the attention of the Department Supervisor or an Operating Engineer, as applicable.

M. Walls

Originator

M. Challenger

Independent Reviewer/Verifier (If Applicable)

J. Fiedler

Department Procedure Writer

G. Petrovic

Department Supervisor

APPROVED
MAY 06 1993
D.O.S.R.

DETERMINING SAFE SHUTDOWN PATHS FOR EXTENSIVE PLANT DAMAGE

A. PURPOSE:

This procedure details methods for bringing the reactor to a cold shutdown condition with a minimum number of components following a severe fire in the plant.

B. USER REFERENCES:

1. DOA 010-10, Fire Fighting.
2. DSSP 0100-A Hot Shutdown Procedure - Path A
3. DSSP 0100-A1, Hot Shutdown Procedure - Path A1.
4. DSSP 0100-B, Hot Shutdown Procedure - Path B.
5. DSSP 0100-B1, Hot Shutdown Procedure - Path B1.
6. DSSP 0100-A2/B2, Hot Shutdown Procedure - Path A2/B2.
7. DSSP 0100-C, Hot Shutdown Procedure - Path C.
8. DSSP 0100-CR, Hot Shutdown Procedure - Control Room Evacuation.
9. DSSP 0100-D, Hot Shutdown Procedure - Path D.
10. DSSP 0100-E, Hot Shutdown Procedure - Path E.
11. DSSP 0100-F, Hot Shutdown Procedure - Path F.
12. EPIP 200-T1, Classification of GSEP Conditions.

C. SUPPLEMENTS:

1. Figure 1, Fire Areas and Final Safe Shutdown Paths for Dresden Unit 2 Reactor Building.
2. Figure 2, Fire Areas and Final Safe Shutdown Paths for Dresden Unit 3 Reactor Building.
3. Figure 3, Fire Areas and Final Safe Shutdown Paths for Dresden Units 2 & 3 Turbine Building.

D. PREREQUISITES:

1. Shift Engineer or other qualified, licensed Senior Reactor Operator has directed entry into this procedure.

E. PRECAUTIONS:

1. Fire damage may cause spurious events to occur and/or require the manual operation of various components.
2. In worst case conditions, reactor vessel makeup and decay heat removal must be initiated within 30 minutes of initiating event.
3. When using radios, radio should be held in hand. Using coil-cord microphone may impair reception.
 - Direct radio contact may not be possible. In such cases, required communications must be relayed.
4. Normal entrance through security doors may be prevented due to damage to security multiplexer cables.
5. This procedure is to be followed only in the event that normal or emergency procedures are insufficient.
6. Procedures implemented by this procedure may violate Radiation Protection Procedures. A Radiation Chemistry Supervisor should be informed prior to entry into any high radiation areas.

F. LIMITATIONS AND ACTIONS:

1. Steps in implementing procedures are based on an analysis of each component used considering severe fire damage in any fire area of the plant.
 - Under any given fire situation, total functional loss of all equipment in a fire area may not occur.
 - This procedure is to be performed at the discretion of the Shift Engineer.
2. Certain steps or conditions within procedures implemented by this procedure may contradict normal license conditions or Technical Specification requirements, as stated in 10 CFR 50.54x:

"A licensee may take reasonable action that departs from a license condition or Technical Specification requirements in an emergency when this action is immediately needed to protect the public health and safety and no action consistent with the license conditions and Technical Specifications that can provide adequate or equivalent protection is immediately apparent."

This action "shall be approved, as a minimum, by a licensed Senior Reactor Operator (SRO) prior to taking the action."

G. PROCEDURE:

1. Center Desk Nuclear Station Operator (NSO): Verify fire siren has been initiated and Shift Engineer (SE) has been notified.
2. SE:
 - a. Verify Fire Brigade has been dispatched.
 - b. Classify event in accordance with EPIP 200-T1, Classification of GSEP Conditions.
 - c. Make initial GSEP notifications.
3. Shift Control Room Engineer (SCRE): Find location of fire on attached maps:
 - Figure 1, Fire Areas and Final Safe Shutdown Paths for Dresden Unit 2 Reactor Building.
 - Figure 2, Fire Areas and Final Safe Shutdown Paths for Dresden Unit 3 Reactor Building.
 - Figure 3, Fire Areas and Final Safe Shutdown Paths for Dresden Units 2 & 3 Turbine Building.
4. SCRE/SE: Identify hot shutdown path(s) to be followed (i.e., A, B, C, D, E, etc.).

NOTE

For a Cribhouse fire, maximum postulated damage is loss of one Diesel Generator (D/G) Cooling Water Pump (CWP) and one Service Water Pump.

- IF U3 D/G CWP is unavailable, THEN DSSP 0100-B will be used to shut down U3.
- IF U2 D/G CWP is unavailable, THEN DSSP 0100-A will be used to shut down U2.
- IF 2/3 D/G CWP is unavailable, THEN DSSP 0100-E and DSSP 0100-F will be used to shut down U2 and U3 respectively.

5. SCRE/SE: Determine implementing procedure(s) to be performed:
 - DSSP 0100-A Hot Shutdown Procedure - Path A
 - DSSP 0100-A1, Hot Shutdown Procedure - Path A1.
 - DSSP 0100-B, Hot Shutdown Procedure - Path B.

- G.
5.
 - DSSP 0100-B1, Hot Shutdown Procedure - Path B1.
 - DSSP 0100-A2/B2, Hot Shutdown Procedure - Path A2/B2.
 - DSSP 0100-C, Hot Shutdown Procedure - Path C.
 - DSSP 0100-CR, Hot Shutdown Procedure - Control Room Evacuation.
 - DSSP 0100-D, Hot Shutdown Procedure - Path D.
 - DSSP 0100-E, Hot Shutdown Procedure - Path E.
 - DSSP 0100-F, Hot Shutdown Procedure - Path F.
 6. SE/SCRE: Direct safe shutdown operations in accordance with the appropriate hot shutdown procedure(s).
 7. SE/SCRE: WHEN stable hot shutdown conditions have been established, THEN identify the cold shutdown method to be used in accordance with the attached maps:
 - Figure 1, Fire Areas and Final Safe Shutdown Paths for Dresden Unit 2 Reactor Building.
 - Figure 2, Fire Areas and Final Safe Shutdown Paths for Dresden Unit 3 Reactor Building.
 - Figure 3, Fire Areas and Final Safe Shutdown Paths for Dresden Units 2 & 3 Turbine Building.
 8. SCRE/SE: Determine implementing procedure(s) to be performed:
 - DSSP 0200-L LPCI/CCSW Cold Shutdown Method.
 - DSSP 0200-S SDC Cold Shutdown Method.
 9. SE/SCRE: Direct cold shutdown operations in accordance with the appropriate cold shutdown procedure.

H. DISCUSSION:

This procedure determines hot and cold shutdown paths to be used in the event of a fire in critical component areas.

This procedure also directs implementation of applicable procedure(s) to place the plant in a cold shutdown condition after critical components have been rendered inoperable.

W. WRITER'S REFERENCES:

1. Title 10 Code of Federal Regulations (CFR):
 - a. 10 CFR 50, Appendix R.
 - b. 10 CFR 50.54x.
2. Safe Shutdown Report, Dresden Units 2 and 3 (Fire Protection Program Documentation Package, Volume 3, Book 1).

Figure 1

Fire Areas and Final Safe Shutdown Paths for
 Dresden Unit 2 Reactor Building

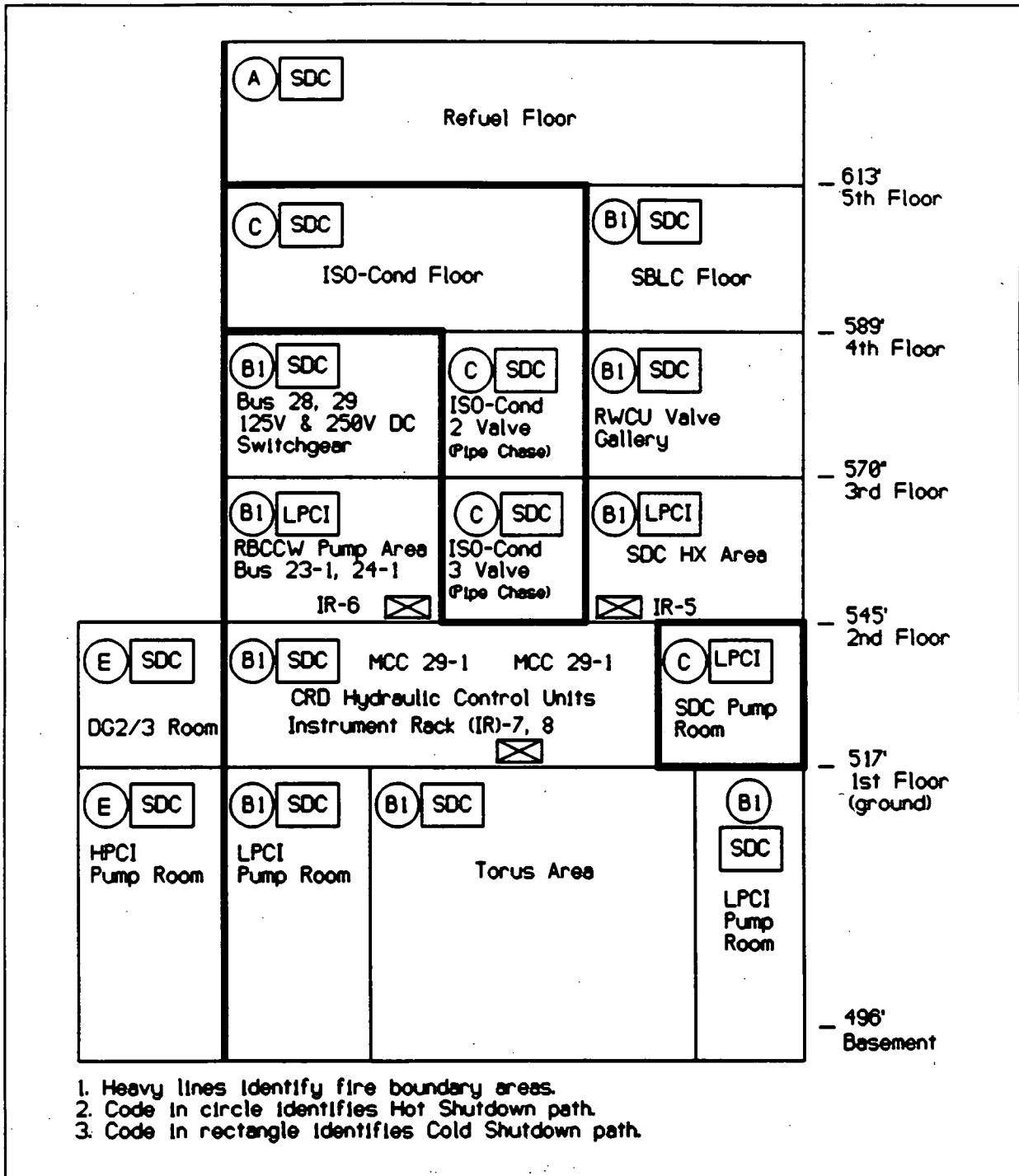


Figure 2

Fire Areas and Final Safe Shutdown Paths for
 Dresden Unit 3 Reactor Building

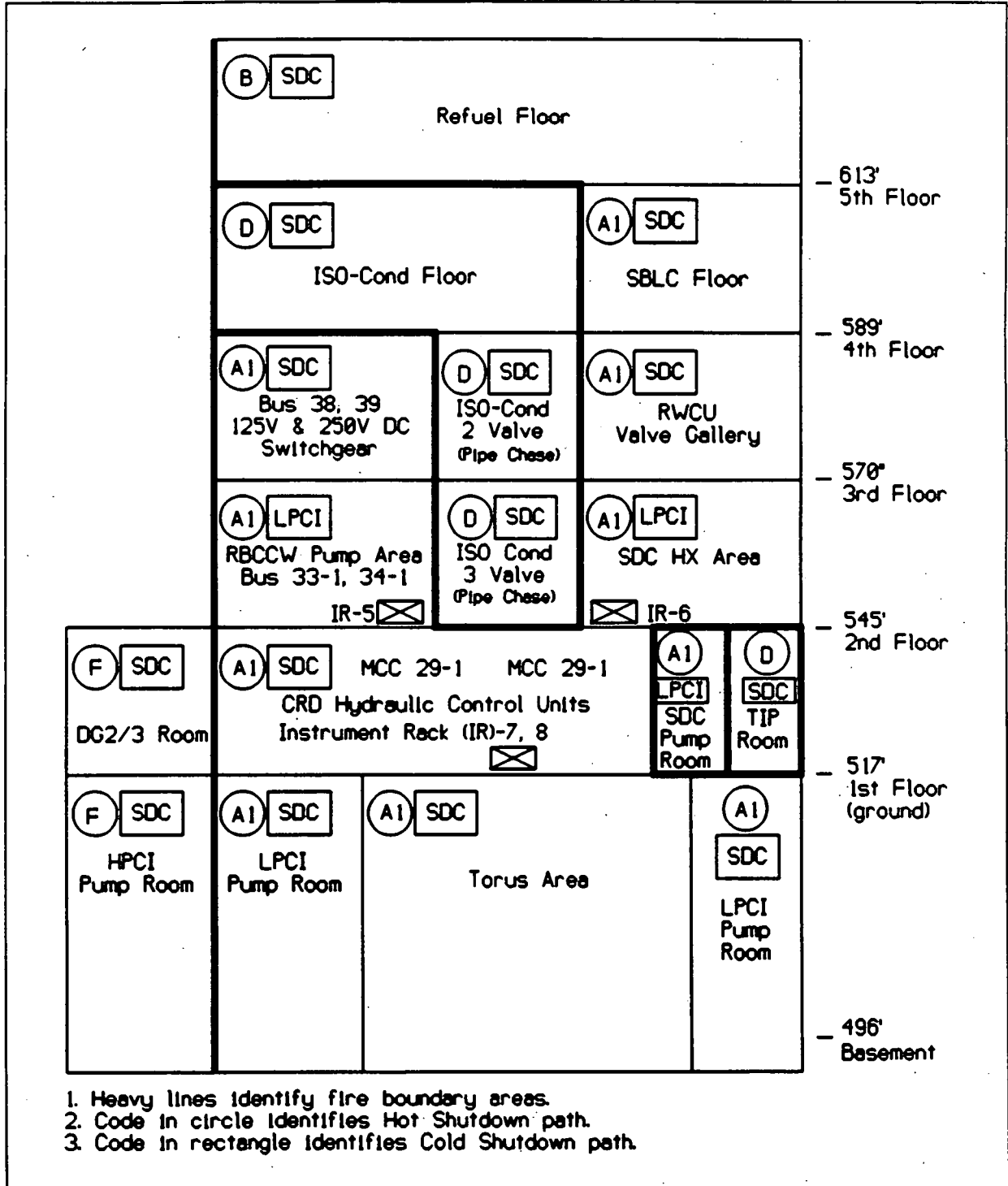
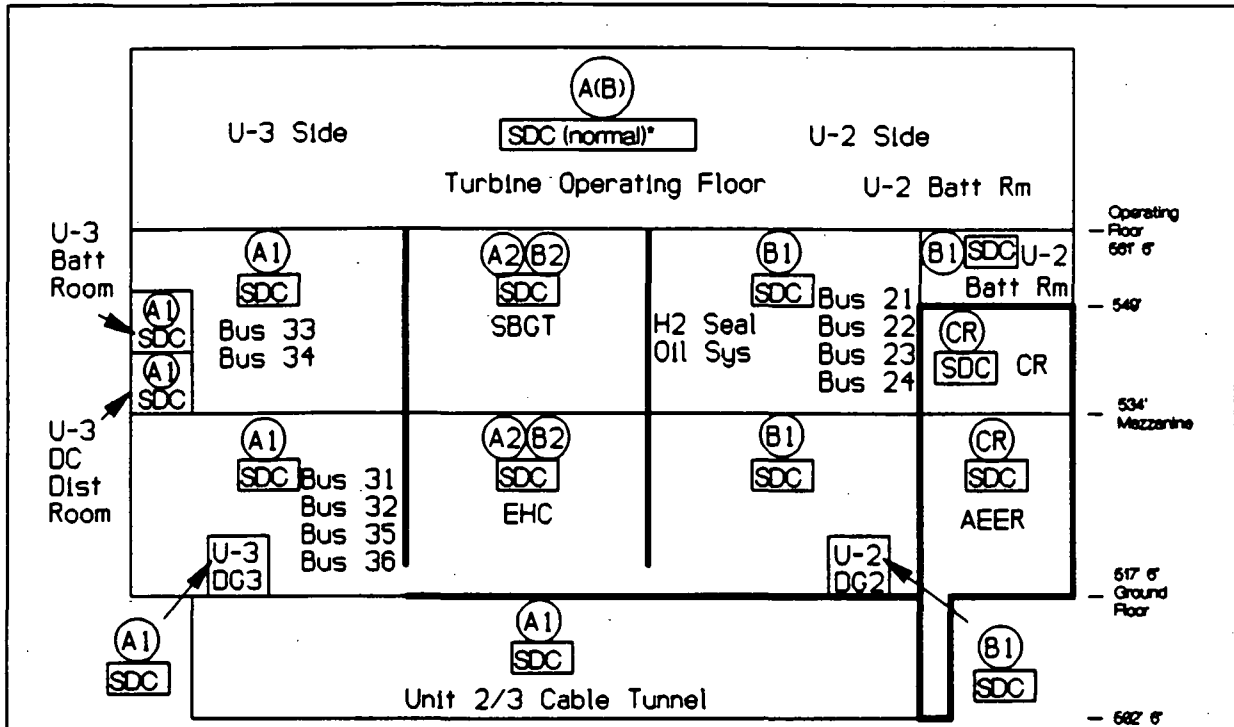


Figure 3,

Fire Areas and Final Safe Shutdown Paths for
 Dresden Units 2 & 3 Turbine Building



1. Heavy Lines Identify fire area boundaries.
2. Code in circle identifies Hot Shutdown Path.
3. Code in rectangle identifies Cold Shutdown Path

AREAS NOT SHOWN

- U-2 Turbine Building Basement 469' & 495'
 CPD & CCSW Pump Room
- U-3 Turbine Building Basement 469' & 495'
 CPD & CCSW Pump Room
- Off-Gas Recombiner Rooms 2 & 3
- Clean and Dirty Oil Tank Rooms
- Cribhouse [fire affecting U-2 (U-3) equipment]
 SW & DG Cooling Pumps 2 & 3
- Cribhouse [fire affecting Unit 2/3 Equipment]
 SW & DG Cooling Pump 2/3

SAFE SHUTDOWN PATH

<u>HOT</u>	<u>COLD</u>
B1	SDC
A1	SDC
A(B)	SDC (normal)*
B-1	SDC (normal)*
A(B)	SDC
E(F)	SDC

* Normal Shutdown Cooling Procedures may be used since a fire in this area will not impair normal Shutdown Cooling Procedures.

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0100-A1	Hot Shutdown Procedure - Path A-1	Rev. 04	12/92	12/94
0100-B	Hot Shutdown Procedure - Path B	Rev. 04	12/92	12/94
*0100-B1	Hot Shutdown Procedure - Path B1 (Safe Shutdown Cart)	Rev. 04	12/92	12/94
*0100-A2/B2	Hot Shutdown Procedure - Path A2/B2 (Safe Shutdown Cart)	Rev. 05	3/93	3/95
*0100-C	Hot Shutdown Procedure - Path C (Safe Shutdown Cart)	Rev. 05	12/92	12/94
*0100-CR	Hot Shutdown Procedure - Control Room Evacuation (Safe Shutdown Cart)	Rev. 03	4/93	4/95
*0100-D	Hot Shutdown Procedure - Path D (Safe Shutdown Cart)	Rev. 04	2/93	2/95
*0100-E	Hot Shutdown Procedure - Path E (Safe Shutdown Cart)	Rev. 06	2/93	2/95
100-E1	Hot Shutdown Procedure Path E1	DELETE	4/88	
*0100-F	Hot Shutdown Procedure - Path F (Safe Shutdown Cart)	Rev. 05	5/93	5/95
100-F1	Hot Shutdown Procedure Path F1	DELETE	4/88	
*0200-L	LPCI/CCSW Cold Shutdown Method (Safe Shutdown Cart)	Rev. 02	2/93	2/95
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