

THREE MILE ISLAND NUCLEAR STATION  
UNIT #1 EMERGENCY PROCEDURE #1202-32  
FLOOD CONTROL

6/22/73  
ORIGINAL FILE  
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Table of Effective Pages

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Plant Staff Recommends Approval 12/1 Date \_\_\_\_\_  
Cognizant Dept. Head

Approval 12/1 Date \_\_\_\_\_  
Station Superintendent/  
Asst. Superintendent

BSW Recommends Approval 12/1 Date \_\_\_\_\_  
BSW Representative

PORC Recommends Approval 9.9.8.1 Date 6/22/73  
Chairman of PORC

Approval 9.9.8.1 Date 6/22/73  
Asst. Superintendent

7911090 510

## Three Mile Island Nuclear Station - Unit No. 1

## Flood Control Emergency Procedure #1202-32

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1. References

1.1 FSNR; Section 2, Site and Environment and  
Section 15, Technical Specifications

1.2 Federal - State River Forecast Center  
National Weather Service  
228 Walnut St.  
Box 1185  
Harrisburg, Pa. 17109

Phone 717 - 787-6715  
717 - 787-6716  
717 - 782-3488  
717 - 782-2256 (unlisted)

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If phone communications are out the Forecast Center may be reached through the Met-Ed Dispatcher and the Civil Defense system by radio.

1.3 G.A.I. Drawings

D - 001 - 016  
D - 015 - 020  
E - 001 - 014  
E - 002 - 008  
E - 015 - 015  
E - 521 - 049  
E - 744 - 058  
E - 744 - 059  
E - 001 - 013

2. Basis for Implementing the Flood Protection Procedure

2.1 The Federal - State River Forecast Center will call the T.M.T. Station when a 36-hour river flow forecast at Harrisburg indicates 350,000 cfs.

2.2 Following this initial notification, or if it is apparent that the center might have failed to notify the station while a possible major flood may be forming, the River Forecast Center should be contacted to periodically obtain the current forecasts.

2.3 The following forecasts of river flow at Harrisburg form the basis for procedural action to be taken during a flood.

2.3.1 A 36-hour forecast of 350,000 cfs or greater will initiate Section 3 of this procedure.

2.3.2 If a 36-hour forecast of 640,000 cfs or greater is received, a flood ALERT will be initiated by the Station Superintendent.

2.3.3 If a 36-hour forecast of 940,000 cfs or greater is received, an EMERGENCY CLOSURE will be called by the Station Superintendent.

2.3.4 If the stage at the River Water Intake Structure of Unit 1 is 308 ft. corresponding to 940,000 cfs river flow the Superintendent will order a SHUT - DOWN (see Figure II).

- 2.3.5 If the river stage reaches elevation 302 ft. corresponding to 1,000,000 cfs river flow, a SHUT DOWN order will be given by the Station Superintendent.

### 3. Flood Protection Procedure

- 3.1 Before the river flow reaches 350,000 cfs, the flap gate at the southeast drainage culvert should be checked for freedom of operation. Also, the inside stop gate should be readied for closing in case the flap gate does not hold tight when the river level on the outside of the southeast dike is higher than the level on the inside.
- 3.2 When a flood ALERT is called, personnel should be called out to start moving flood panels to placement location, clearing the imbedded bolt holes for the flood panels, and bolt down and seal the following manway covers:

<u>Location</u>	<u>No.</u>	<u>Checked</u>
Intake Screen and Pump House	2	_____
Diesel Driven Fire Pump House	1	_____
Air Intake Structure	2	_____

- 3.3 When an EMERGENCY CLOSURE is announced, the following should be accomplished within a time period of 36 hours.

- 3.3.1 Call out all available personnel to place stop logs and for plant operations.
- 3.3.2 Provide for emergency food supplies.
- 3.3.3 Notify Manager - Generation of situation.
- 3.3.4 Install the following flood gates:

<u>Location (See Figure I)</u>	<u>No.</u>	<u>Checked</u>
(D-4) Diesel Generator Building Air Intake Openings	2	_____
(D-1) North Entrance to Diesel Generator Building	1	_____
(D-3) East Entrance to Diesel Generator Building	1	_____
(D-2) West Entrance to Diesel Generator Building	2	_____
(A-1) Fuel Handling Building Opening to Unit 2 (Only during Unit 2 Construction)	1	_____
(E-1) South Entrance to Intake, Screen & Pump House Switchgear and Pump Room	1	_____
(E-2) Doorways between Screen Rooms and Pump Rooms in Intake, Screen and Pump House	3	_____
(E-3) Doorway to Diesel Driven Fire Pump Room adjacent to the Intake, Screen and Pump House	1	_____

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<u>Location</u>	<u>No.</u>	<u>Checked</u>
(E-4) 9 feet wide doorway between Screen and Pump Rooms in Intake, Screen and Pump House	1	_____
(C-1) East Entrance to Intermediate Building	1	_____
(B-1) Entrance to Fuel Handling Building	1	_____
(B-2) Entrance to Control Building	1	_____
Doorway to EAST Tunnel	1	_____

3.3.5 Inflate door seals at the following locations:

<u>Location</u>	<u>No.</u>	<u>Checked</u>
(A-2) Fuel Handling Building (Rail Entrance)	1	_____
(A-3) Auxiliary Building (Loading Dock)	1	_____

3.3.6 Verify closure of two watertight doors into the canals around the Reactor Building at elev. 281'.

<u>Location</u>	<u>No.</u>	<u>Checked</u>
(A-4) West door	1	_____
(A-5) East door	1	_____

3.3.7 Check and fill fuel storage tanks.

3.3.8 Increase makeup water to all storage tanks as much as possible and fill all outdoor tanks to at least elevation 312 to help prevent floatation in case of site flooding, i.e. - all tanks > 7' level (305' grade).

3.4 If a SHUT DOWN ALERT is called, preparations should be made to shut down the plant as required and notify executive level personnel of the situation.

3.5 If a SHUT DOWN is ordered, the following should be done:

3.5.1 The station should be placed into a cold shutdown.

3.5.2 All unnecessary equipment should be shutdown and isolated mechanically and electrically as much as possible.

#### 4.0 Post Flood Procedure

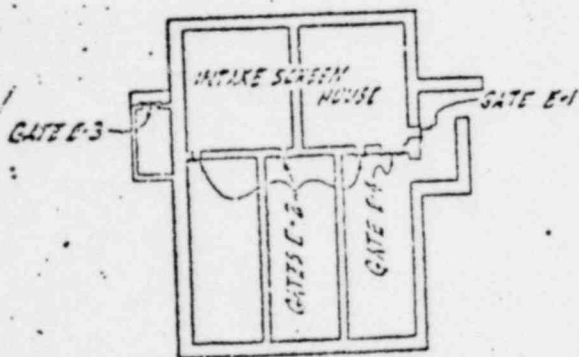
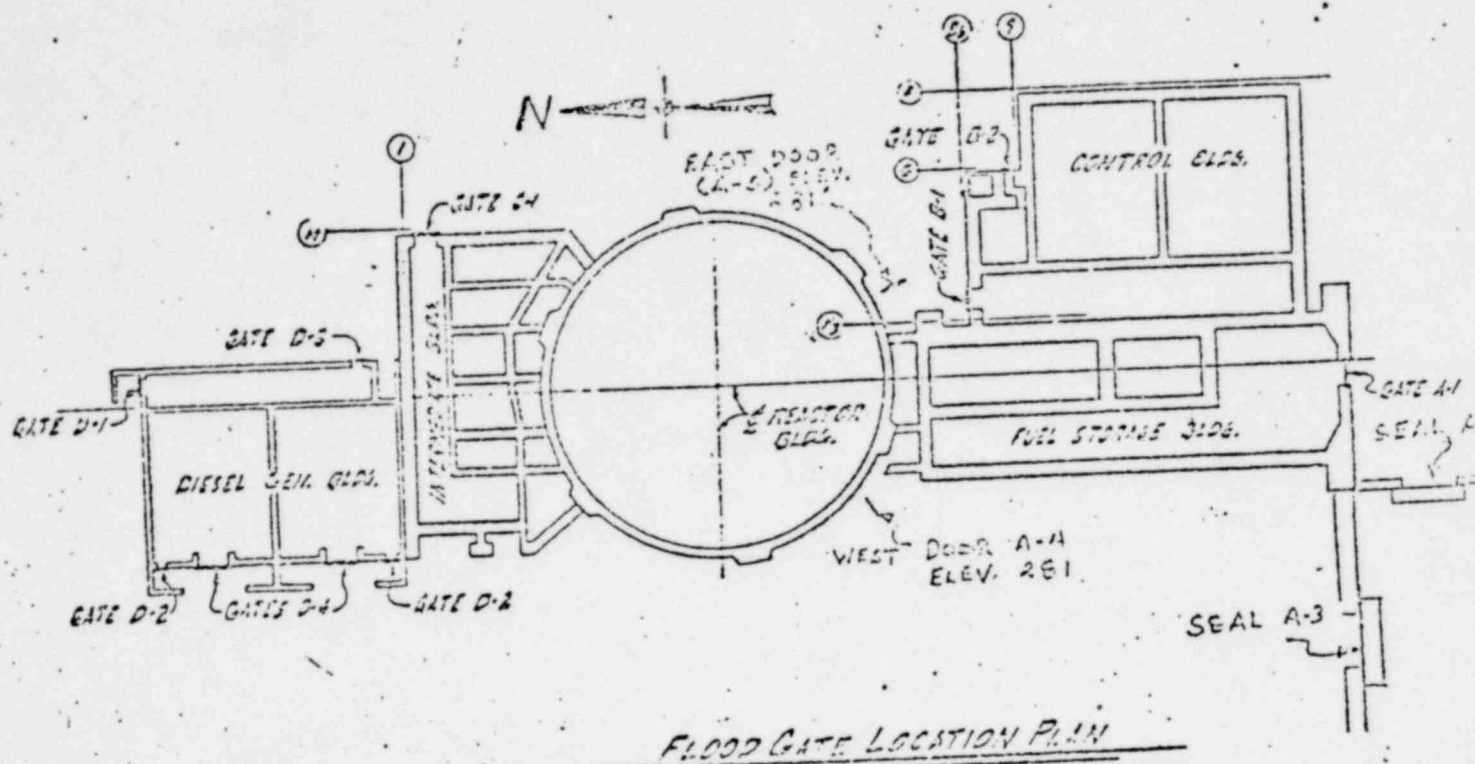
4.1 As the river recedes, the above procedures will be reversed.

4.2 If the stop gate had been closed during the river rise (Section 3.1), it should be opened as the river level on the outside of the south-east culvert opening goes below the level of the water inside the dike.

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FIGURE I

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APPENDIX IISUSQUEHANNA RIVER

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STAGE DISCHARGE TABLE \*\*

At T.M.I. River Water Intake Structures

<u>River Stage</u> <u>(Feet Above Sea Level)</u>	<u>River Flow</u> <u>(Cubic Feet Per Sec. at Harrisburg*)</u>
283.6	200,000
284.9	250,000
285.8	300,000
287.0	350,000
288.1	400,000
289.7	450,000
291.0	500,000
292.6	550,000
294.0	600,000
295.2	650,000
296.1	700,000
297.1	750,000
298.1	800,000
299.1	850,000
300.1	900,000
301.1	950,000
302.0	1,000,000
302.8	1,050,000
303.3	1,100,000
303.8	1,150,000
304.3	1,200,000
304.8	1,250,000
305.3	1,300,000
305.8	1,350,000
306.3	1,400,000
306.9	1,450,000
307.4	1,500,000
307.9	1,550,000
308.4	1,600,000
309.0	1,650,000
309.7	1,700,000
310.4	1,750,000

\* River Flow at Harrisburg and at TMI are assumed to be the same.

Based on Figure 2 - 20, Unit 1 POAR

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