FENOC
Davis-Besse Power Station
Transmittal Report

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One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852-2738
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Davis-Besse Nuclear Power Station

EMERGENCY PLAN OFF NORMAL OCCURRENCE PROCEDURE

RA-EP-02830

FLOODING

REVISION 04

Prepared by: P. J. Smith

Procedure Owner: Emergency Response Manager

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1.0 PURPOSE

This procedure describes the action levels and procedures which shall be followed if flooding is imminent or has occurred at or near the Davis-Besse Nuclear Power Station (DBNPS).

2.0 REFERENCES

2.1 Developmental

2.1.1 DBNPS USAR Section 2, Site Characteristics

2.1.2 Davis-Besse Nuclear Power Station Emergency Plan

2.1.3 Calculation C-ICE-00901-002 Ultimate Heat Sink Level

2.2 Implementation

2.2.1 RA-EP-01500, Emergency Classification

2.2.2 RA-EP-02870, Station Isolation

2.2.3 DB-OP-06913, Seasonal Plant Preparation Checklist

2.2.4 DB-OP-02550, Dry Fuel Storage Abnormal Events

3.0 DEFINITIONS

3.1 FLOOD WATCH - Lake water elevations between 574' and 576'.

3.2 FLOOD WARNING - Lake water elevations between 576' and 578'.

3.3 FLOOD EMERGENCY - Lake water elevations greater than 578'.

4.0 RESPONSIBILITIES

4.1 The Shift Manager shall:

4.1.1 Notify onsite personnel.

4.1.2 Take immediate action to ensure that flood barriers are in place.

4.1.3 Using the Integrated On-Call Report notify the On Call Duty Team including the Duty Emergency Response Representative.

4.2 The Duty Emergency Response representative shall:

4.2.1 Determine the availability of transportation to provide limited access to the station during flood emergency conditions.

4.2.2 As conditions warrant, update the ERO by using an ERO alpha numeric page

and/or text messaging to provide information on site access.

4.2.3 Notify the Emergency Response Organization of flood warnings and the implementation of RA-EP-02870, Station Isolation, as required if access to the station is challenged.

5.0 INITIATING CONDITIONS

This procedure shall be used when lake levels have exceeded 574' and weather conditions are favorable for flooding.

5.1 To see a list of acceptable Forebay Level instrumentation and level error; REFER TO DB-OP-06913 Seasonal Plant Preparation Checklist

6.0 PROCEDURE

NOTE 6.1
Steps in Section 6.1 may be done in Series or Parallel

6.1 Flood Watch - Lake level between elevation 574' and 576', causing local flooding of the marshes and low areas around the station and water covering low portions of access roads.

6.1.1 The Shift Manager shall:

a. Make an announcement over the Gai-tronics System that a Flood Watch is in effect.

b. Using the Security Ring Down phone, direct the Secondary Alarm Station Operator to make an announcement over the Owner Controlled Area Public Address System that a Flood Watch is in effect.

c. Using the Integrated On-Call Report notify the On Call Duty Team of the Flood Watch. This should include at a minimum those duty positions up to and including the Duty Emergency Response Representative. Conduct a Duty Team phone call, if needed.

d. Take immediate action to ensure that flood barriers are in place for the Service Water Pumps, Cooling Tower Makeup Pumps and the Diesel Fire Pump (whether utilizing the pumps themselves or temporary closures.) Also close any unisolated breaches in associated equipment located in the pump rooms when a Flood Watch is declared.

e. Refer to Emergency Plan Telephone Directory, Section 2.1.D, and send out a message to the ERO using the internet or email, advising ERO personnel that the station has entered a Flood Watch.

6.1.2 The Duty Emergency Response representative shall:

a. Consult with the Ottawa County Sheriff and the Ottawa County Emergency Management Agency Director to assess road conditions.

b. Monitor the lake level.

c. Update the Shift Manager of significant changes in offsite conditions.

End of Section

NOTE 6.2

Steps in Section 6.2 may be done in Series or Parallel

6.2 Flood Warning - Lake level between elevations 576' and 578' causing closing of the lower access roads, leaving only Duff-Washa and other higher roads available for access to the Station.

6.2.1 The Shift Manager shall:

a. Make an announcement over the Gai-tronics System that a Flood Warning is in effect.

b. Using the Security Ring Down phone direct the Secondary Alarm Station Operator to make an announcement over the Owner Controlled Area Public Address System that a Flood Warning is in effect.

c. Using the Integrated On-Call Report notify the On Call Duty Team to include the Duty Emergency Response representative of the Flood Warning. Conduct a Duty Team phone call, if needed.

d. Consult the On Call Duty Emergency Plant Manager, and decide whether or not to activate RA-EP-02870, Station Isolation.

e. Refer to Emergency Plan Telephone Directory, Section 2.1.D, and send out a message to the ERO using the internet or email, advising ERO personnel that the station has entered a Flood Warning.

f. Increase frequency of monitoring in areas of the plant below grade to detect water intrusion including Service Water Pump House, Turbine Building, Water Treatment, Auxiliary Building, Service Water Pump Tunnel, and Dry Fuel Storage pad.

6.2.2 The Duty Emergency Response representative shall:

a. Consult with the Ottawa County Sheriff and Ottawa County Emergency Management Agency Director to assess road conditions.

NOTE 6.2.2.b

The Davis-Besse Emergency Plan Telephone Directory, Section 2.0, Immediate Notification, contains information for ERO notification.

b. Update the ERO using the internet or email as necessary.

c. Coordinate transportation for essential personnel to the station should conditions deteriorate.

d. Monitor the lake level.

e. Update the Shift Manager of significant changes in offsite conditions.

NOTE 6.3

Since the station will be isolated by flooded roadways at Lake levels over 578', a minimal workforce should be scheduled for essential operating and emergency activities.

Steps in Section 6.3 may be done in Series or Parallel

6.3 Flood Emergency - Lake levels over elevation 578' causing access via normal roadways to be extremely hazardous or impassable.

6.3.1 The Shift Manager shall:

a. Notify the station that a Flood Emergency exists and with the concurrence of the Duty Team Leader/Emergency Plant Manager implement RA-EP-02870, Station Isolation.

b. Determine the proper emergency classification and take actions in accordance with RA-EP-01500, Emergency Classification, if applicable.

c. Station operation shall be maintained by essential operating and staff personnel until a shutdown is determined to be necessary by the Duty Team Leader/Emergency Plant Manager or the Shift Manager.

d. Notify/update the Duty Emergency Response Representative as appropriate.

e. Refer to Emergency Plan Telephone Directory, Section 2.1.D, and send out a message to the ERO using the internet or email, advising ERO personnel that the station has entered a Flood Emergency.

f. Continue monitoring in areas of the plant below grade to detect water intrusion including Service Water Pump House, Turbine Building, Water Treatment, Auxiliary Building, Service Water Pump Tunnel, and Dry Fuel Storage pad.

6.3.2 The Duty Emergency Response Representative shall:

NOTE 6.3.2.a

The Davis-Besse Emergency Plan Telephone Directory, Section 2.0, Immediate Notification, contains information for ERO notification.

a. Update the ERO using the internet or email as necessary.

b. Monitor the lake level.

c. Consult with the Ottawa County Sheriff and Ottawa County Emergency Management Agency Director to assess road and weather conditions.

d. Update the Shift Manager of significant changes in offsite conditions.

6.3.3 Supervisors shall:

a. Identify essential personnel when requested by the Shift Manager or Duty Team Leader/Emergency Plant Manager.

b. Obtain a recommended location for assembly from the Duty Emergency Response Representative.

c. Communicate to essential personnel where they should assemble.

6.3.4 Overnight accommodations for all isolated personnel shall be made in accordance with RA-EP-02870, Station Isolation.

7.0 FINAL CONDITIONS

7.1 Water level has receded to below 574' and access by road to the site has been restored.

7.2 Refer to Emergency Plan Telephone Directory, Section 2.1.D, and send out a message to the ERO using the internet or email, advising ERO personnel that the station has exited the flooding procedure.

7.3 REFER TO DB-OP-02550, Dry Fuel Storage Abnormal Events to determine if any other actions are required.

8.0 RECORDS

8.1 IF the following quality assurance records are completed by this procedure during a classifiable event,
THEN the records shall be processed and retained as part of the Event Package in accordance with RA-EP-02720, Recovery Organization,
OTHERWISE the following quality assurance records completed by this procedure shall be listed on the Nuclear Records List, captured, and submitted to Enterprise Records Management in accordance with NOP-SS-3300:

8.1.1 None

8.2 The following non-quality assurance records are completed by this procedure and may be captured and submitted to Enterprise Records Management in accordance with NOP-SS-3300:

8.2.1 None

ATTACHMENT 1: DBNPS ELEVATION PROFILE
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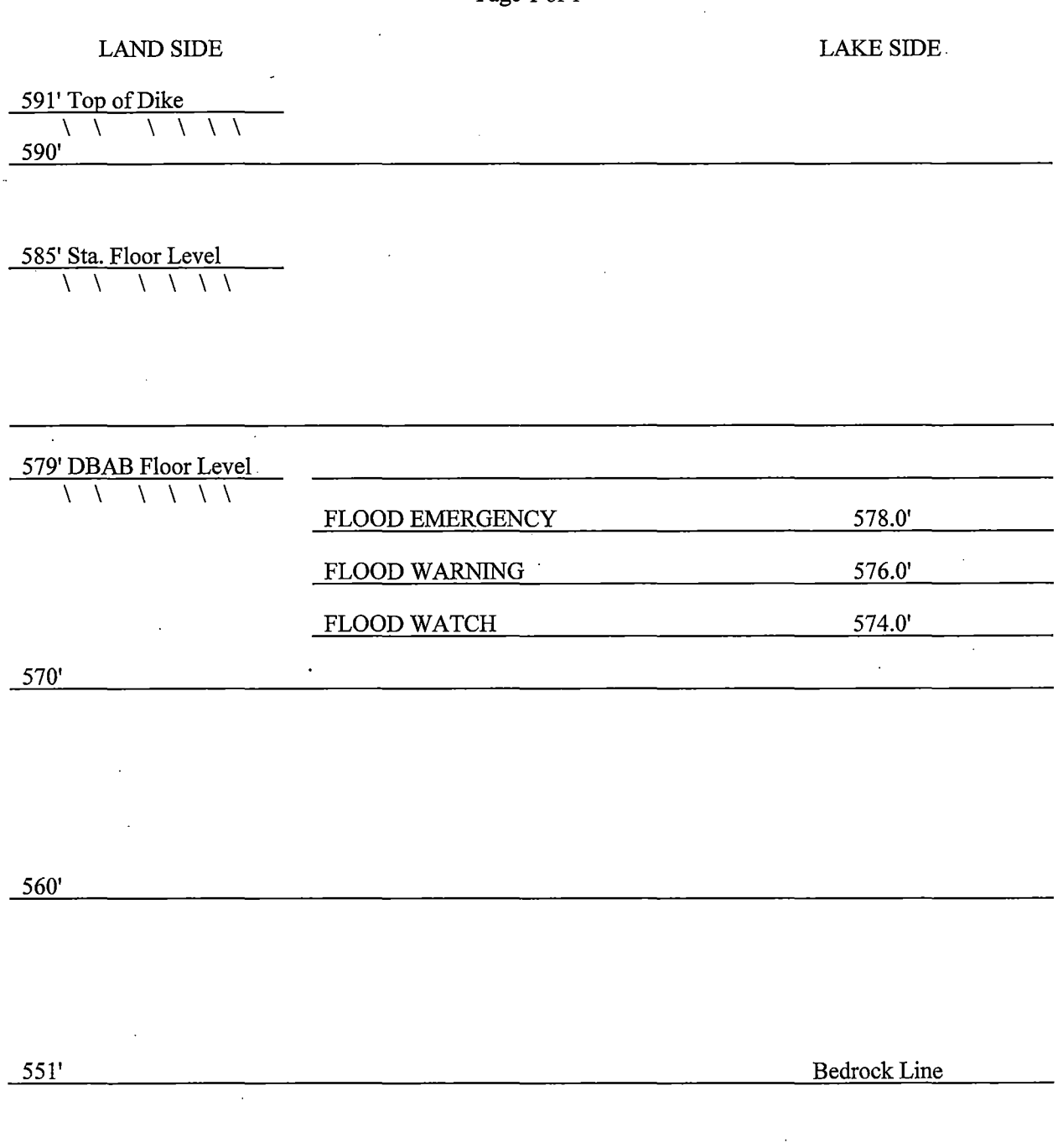

ATTACHMENT 2: HISTORICAL FLOODING INFORMATION
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Historical local flooding has occurred following a rain/snow melt condition with a strong northeast (NE) wind. Under these conditions lake level will raise approximately 1 inch per hour with northeast winds greater than 20 mph. The high northeast wind slows the runoff from local rivers and causes the lake to intrude into the low laying areas. The typical flooding event lasts 12 to 24 hours. This is amount of the time it takes the wind direction and/or speed to change.

Duff-Washa is the highest roadway, however all access roads have the ability to flood. Low points on SR2 are near the intersection of SR2 and SR19 to the west of the plant and to the east near the point that SR2 crosses the Toussaint River.

Once the roadways flood they become extremely hazardous due to the deep ditches that are found along most area roadways. Vehicles that misjudge the roadway edges will quickly roll into the ditch.

Access via the Davis-Besse railroad spur is limited. Most train engines use electric motors for propulsion which are located low on the engine and are therefore unable to ford flooded areas.

Because of the high northeast winds that accompany local flooding events, helicopters may not be an option for accessing the station.

When the winds shift away from the NE the high water typically quickly recedes.

Road blocks are erected on an as needed basis, however removal of them will occur normally during daylight hours.

COMMITMENTS

Section	Reference	Comments
6.1.1.d	O 20561	Closure of breached barriers due to maintenance
6.1.1.d	O 21210	Operator actions required to protect SW from flooding.