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		TOC 1	TOC 2	Type	Number	Document	Sht/Sec	Changes	Rev	Status
old	EPIB		Remove	PROC	RA-EP-02230	HS-EP-02230			0003	IMPLEMENTATION
new	EPIB			PROC	RA-EP-02230				0000	APPROVED

Supersedes

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EPIB

Number	Title
HS-EP-02240	OFFSITE DOSE ASSESSMENT
RA-EP-02010	EMERGENCY MANAGEMENT
RA-EP-02110	EMERGENCY NOTIFICATION
RA-EP-02220	EMERGENCY CONTROL CENTER ACTIVATION AND RESPONSE
RA-EP-02230	DOSE ASSESSMENT CENTER ACTIVATION AND RESPONSE
RA-EP-02245	PROTECTIVE ACTION GUIDELINES
RA-EP-02250	RADIATION MONITORING TEAM SURVEYS
RA-EP-02260	RADIOLOGICAL CONTROLS IN THE DBAB
RA-EP-02270	FACILITIES SUPPORT
RA-EP-02310	TECHNICAL SUPPORT CENTER ACTIVATION AND RESPONSE
RA-EP-02320	EMERGENCY TECHNICAL ASSESSMENT

Davis-Besse Nuclear Power Station

EMERGENCY PLAN IMPLEMENTING PROCEDURE

RA-EP-02230

(Supersedes HS-EP-02230 R3/C2)

DOSE ASSESSMENT CENTER ACTIVATION AND RESPONSE

REVISION 00

Prepared by: Paul F. Timmerman

Procedure Owner: Manager - Security

Effective Date: 5/29/02

Procedure Classification:

- Safety Related
- Quality Related
- Non-Quality Related

<p style="text-align: center;">LEVEL OF USE: IN-FIELD REFERENCE</p>

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1.0 PURPOSE

This procedure provides instructions for activation, operation, and deactivation of the Dose Assessment Center.

2.0 REFERENCES

2.1 Developmental

2.1.1 Davis-Besse Nuclear Power Station Emergency Plan

2.2 Implementation

2.2.1 RA-EP-02240, Offsite Dose Assessment

2.2.2 RA-EP-02245, Protective Action Guidelines

2.2.3 RA-EP-02250, Radiation Monitoring Team Surveys

2.2.4 RA-EP-02620, Emergency Dose Control and Potassium Iodide Distribution

2.2.5 Offsite Dose Calculation Manual, Davis-Besse Nuclear Power Station

2.2.6 Davis-Besse Emergency Plan Telephone Directory

3.0 DEFINITIONS

Controlling Receptor Pathway - The controlling receptor pathway is the most limiting pathway for human ingestion or inhalation of radioactive contamination that may occur in the 16 sectors surrounding the site. Dose to an individual of the indicated age group due to this pathway is the maximum dose that can be received by an individual in the sector via any ingestion or inhalation pathway.

4.0 RESPONSIBILITIES

4.1 The Dose Assessment Coordinator shall be responsible for:

4.1.1 Implementing this procedure.

4.1.2 Evaluating, recognizing, and recommending to the Emergency Radiation Protection Manager the need for emergency exposure authorizations and potassium iodide (KI) administration to essential personnel outside the protected area per RA-EP-02620, Emergency Dose Control and Potassium Iodide Distribution.

- 4.2 The Radiation Monitoring Team (RMT) Coordinator shall be responsible for the backup call-out of RMT members, and maintaining communications with the RMT field teams.
- 4.3 The Supervisor - Emergency Preparedness is responsible for accumulating and submitting records to Nuclear Records Management.

5.0 INITIATING CONDITIONS

- 5.1 At the request of the Emergency Offsite Manager or Emergency Director.
- 5.2 At the declaration of an Alert or higher-level emergency.

6.0 PROCEDURE

6.1 Dose Assessment Coordinator

The Dose Assessment Coordinator shall ensure the following:

- 6.1.1 The staffing listed below arrives at the Dose Assessment Center:
 - a. RMT Coordinator.
 - b. Dose Assessors (2).
 - c. Status Board Keeper.
 - d. Radiological Testing Lab (RTL) Coordinator at RTL.
 - e. Consider the Dose Assessment Center activated when dose assessment and RMT Coordinator functions can be performed by available personnel.
 - f. Inform the Emergency Offsite Manager (EOM) when the Dose Assessment Center and RTL are activated.
- 6.1.2 Dose Assessment computer equipment is on and operable.
- 6.1.3 Current site weather conditions and forecast are obtained.
- 6.1.4 Possible release pathways are determined based on the emergency situation.
- 6.1.5 The offsite laboratory is contacted and alerted that emergency environmental sampling support may be required at the Davis-Besse site. Request that a sampling support team be put on standby. Telephone numbers for contacting the offsite laboratory are listed in the Emergency Plan Telephone Directory in the Other Resources section.
- 6.1.6 Dose Assessors observe radiation monitor readings on the Safety Parameter Display System (SPDS) to determine if a release is in progress.
 - a. Obtain other radiation monitor readings via any of the following.
 1. Technical Support Center (TSC) fax machine.
 2. Telephone from the Radiation Data Technician in the Control Room.
 3. Radiation Data Loop.
- 6.1.7 Update the Radiological Status Board.
- 6.1.8 The RTL Coordinator assigns RMT members to teams and has them report to the Dose Assessment Center for a briefing prior to dispatch.
- 6.1.9 Dose Assessors perform the following:
 - a. Calculate and assess projected offsite dose utilizing RA-EP-02240, Offsite Dose Assessment.

- b. Determine protective action recommendations utilizing RA-EP-02245, Protective Action Guidelines.
- c. Obtain estimates of release duration, and leak or release rates from the TSC staff, as needed.
- d. Maintain a file of all dose assessment calculations and RMT data to be analyzed during Recovery.
- e. Record and trend critical data such as radionuclide composition and release rate.

6.1.10 If a release is in progress or imminent:

- a. Recommend to the Emergency Offsite Manager (EOM) that the Emergency Facility Services Manager do the following:
 - 1. Switch the Davis-Besse Administrative Building (DBAB) ventilation system, to incident mode.
 - 2. Isolate the DBAB potable water storage tank.
 - 3. Post "No eating, drinking, or smoking" in the DBAB until habitability has been determined by the RTL Coordinator.
- b. Determine whether essential personnel must evacuate the warehouse and determine evacuation needs for other staffed facilities outside of the Protected Area.
- c. Ensure dose assessment staff is monitoring for lake breeze conditions in accordance with RA-EP-02240, Offsite Dose Assessment.

6.1.11 Inform the EOM of:

- a. Release status.
- b. RMT status.
- c. Offsite dose calculations.
- d. DBAB habitability.
- e. Other Dose Assessment Center activities.

6.1.12 Participate in discussions with the EOM and Emergency Director in order to formulate offsite protective action recommendations.

6.1.13 Evaluate offsite and Owner Controlled Area potassium iodide requirements in accordance with RA-EP-02620, Emergency Dose Control and Potassium Iodide Distribution and notify the EOM of your decision.

- 6.1.14 The RTL Coordinator is informed of changes in radiological conditions, emergency status, and protective action recommendations.
- 6.1.15 The RTL Coordinator directs the DBAB habitability surveys.
- 6.1.16 RMTs issue Thermo-Luminescent Dosimeters (TLDs) to the access road security station and the warehouse.
- 6.1.17 Confer with the State of Ohio representatives in the Emergency Control Center/Emergency Operations Facility (ECC/EOF) to compare dose assessment and plume tracking results.
- 6.1.18 If a lake breeze is occurring while an airborne radioactive release is in progress or imminent, then:
- a. Ensure the RMT Coordinator gets wind direction from RMTs in the field.
 - b. Notify the Ohio Emergency Management Agency that a lake breeze is occurring and the the plume may not follow a downwind course as indicated by the meteorological tower wind direction.
 - c. Be aware that higher-than-projected dose rates may occur in the plume pathway.
- 6.1.19 If helicopter service is needed for plume tracking, ask the Emergency Offsite Manager to coordinate this through the Corporate Emergency Organization.
- a. Ensure the Emergency Security Manager is notified that a helicopter will arrive onsite.
- 6.1.20 Obtain dosimetry records for RMTs from the Emergency RP Manager.
- 6.1.21 When airborne plume tracking is finished, have Dose Assessors estimate the total population exposure using RA-EP-02240, Offsite Dose Assessments.
- 6.1.22 Analyze release data, meteorological data, and field RMT data in order to determine where environmental sampling should occur.
- 6.1.23 Request that offsite lab send environmental sampling support to the Davis-Besse site. When the offsite lab support arrives, brief them on relevant events and conditions, and inform them of what areas may be best for sampling.

- 6.1.24 During Recovery, brief the field RMTs on the location, number and type of environmental samples to collect utilizing the sampling procedures in RA-EP-02250, Radiation Monitoring Team Surveys.
- a. A sample or samples should be collected from the controlling receptor pathway of each of the 16 sectors surrounding the site.
 - b. Determine sampling sites by referring to the Offsite Dose Calculation Manual or the Annual Land Use Census.
 - c. Call in Radiation Protection staff support, as needed.
- 6.1.25 Direct the environmental sampling operations of the field RMT teams through the RMT Coordinator.
- 6.1.26 Notify the Emergency RP Manager (or RP Coordinator during Recovery) that support is needed for packaging the environmental samples.
- a. Ensure that the samples are sent for analysis as quickly as possible so that short lived radioisotopes are still detectable.
 - b. Ensure all environmental samples have been identified to Radiation Protection personnel for shipping to the offsite laboratory.
- 6.1.27 Forward the RMT data, dose assessment calculations and preliminary estimate of total population exposure to the Emergency RP Manager (RP Coordinator).

6.2 RMT Coordinator

The RMT Coordinator shall:

- 6.2.1 If the emergency is an Alert or higher, or if requested, call RMT members to respond to the RTL using the RMT call tree card.
- 6.2.2 Ensure that at least 10 RMT members respond for an Alert or higher classification, unless otherwise advised by the Dose Assessment Coordinator.
- 6.2.3 Ensure that the Emergency Control Center/Emergency Operations Facility (ECC/EOF) Dose Assessment Center radio equipment is on.
- 6.2.4 Ensure that RMT vehicle keys are in the key locker or available.
- 6.2.5 Coordinate the locations to be surveyed with the Dose Assessment Coordinator.
- 6.2.6 Brief the RMT teams on:
 - a. Emergency status and present plant conditions.

- b. Locations where RMTs should survey.
 - c. Radiological conditions at the survey locations.
 - d. Planning of preferred travel route(s) to the survey locations, keeping As Low As Reasonably Achievable (ALARA) concepts in mind.
- 6.2.7 Direct the dispatched RMTs to perform a radio check before leaving the site.
- 6.2.8 Update the RMTs on release status, plant conditions, and emergency status on at least an hourly basis.
- 6.2.9 Communicate via radio with the field RMTs and locate the boundaries and centerline of the radioactive plume.
- 6.2.10 After consultation with the Dose Assessment Coordinator, order the field RMTs to take plume centerline air samples.
- 6.2.11 Maintain a record of:
- a. Location of sample/survey points.
 - b. Instrument readings.
 - c. Type and number of samples.
- 6.2.12 Monitor the RMT radiation exposure by requiring each RMT to report their dose at least hourly, as recorded on their self-reading dosimeters.
- a. If an RMT member accumulates 4000 mrem for the current year, the RMT should be replaced by another RMT member and used for activities in which little additional radiation dose is expected.
 - b. If an RMT member must be used whose dose exceeds 5000 mrem see RA-EP-02620, Emergency Dose Controls and Potassium Iodide Distribution, for action guidelines.
- 6.2.13 If a lake breeze is in effect, have the RMTs estimate wind direction from various locations in the 10-mile EPZ to get an idea of the wind pattern. These estimates may be made by observing trees, smoke, dust, etc.
- 6.2.14 Have RMTs return their samples to the Radiological Testing Lab, but ensure at least one RMT is in the field at all times.
- 6.2.15 When RMTs return to the DBAB, debrief them to ensure that all field data were communicated correctly and any potential hazards are identified.
- 6.2.16 During deactivation, aid in restoring the Dose Assessment Center to preactivation condition.

6.2.17 Report communication difficulties encountered by the RMT field teams to the Dose Assessment Coordinator.

6.2.18 Complete all records generated, and submit them to the Dose Assessment Coordinator.

7.0 FINAL CONDITIONS

The Dose Assessment Center shall be deactivated when:

7.1 Continuous dose assessment and protective action functions are no longer necessary to respond to the indicated emergency plant conditions, and the ECC/EOF has been deactivated by the Emergency Offsite Manager.

7.2 All equipment and usable supplies have been returned to their normal storage location.

8.0 RECORDS

8.1 The following quality assurance records are completed by this procedure and shall be listed on the Nuclear Records List, captured, and submitted to Nuclear Records Management in accordance with NG-NA-00106:

8.1.1 None

8.2 The following non-quality assurance records are completed by this procedure and may be captured and submitted to Nuclear Records Management in accordance with NG-NA-00106:

8.2.1 None

COMMITMENTS

<u>Section</u>	<u>Reference</u>	<u>Comments</u>
Step 6.1.9.e	TERMS O13585	Addresses radionuclide and total release tracking.
Step 6.2.8	TERMS O 15123	Ensure RMTs in the field are updated on plant conditions and emergency status
Step 6.1.10.c	TERMS O 14992	Addresses lake breeze
Step 6.0	TERMS Q 03111	Entire Procedure

END