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Monticello Nuclear Generating Plant
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Emergency Plan Implementing Procedure

Enclosed with this letter is a revision to the Monticello Nuclear Generating Plant (MNGP) Emergency Plan Implementing Procedures. The following procedure is revised:

| <u>Procedure</u> | <u>Procedure Title</u> | <u>Revision</u> |
|------------------|---------------------------|-----------------|
| A.2-201 | On-Site Protective Action | 12 |

Please post the change in your copy of the MNGP Emergency Plan Implementing Procedures manual. The superseded procedure should be destroyed.

This revision does not reduce the effectiveness of the MNGP Emergency Plan. Nuclear Management Company has not made new or revised commitments in this letter or the enclosure.

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Enclosure

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1.0 PURPOSE

This procedure provides instructions and guidance for the direction of on-site radiological monitoring to assess the need for protective actions during an emergency.

2.0 APPLICABILITY

2.1 An emergency classification (Alert or higher) has been declared at the Monticello Plant and the Emergency Director or Radiological Emergency Coordinator has requested on-site radiological surveys.

3.0 ORGANIZATION AND RESPONSIBILITIES

3.1 The Radiological Emergency Coordinator (REC) is responsible for:

3.1.1 Overall coordination of radiation protection emergency response activities including on-site radiological monitoring.

3.2 The Monitoring Section Leader (MSL) is responsible for:

3.2.1 Implementation of this procedure.

3.2.2 Coordination of on-site radiological surveys and sampling.

3.3 Rad Prot Coord (RPC) / Rad Prot Tech (RPT) are responsible for:

3.3.1 The conduct of on-site radiological surveys under the direction of the MSL in the TSC.

4.0 DISCUSSION

The extent and degree of on-site radiological monitoring following a release of radioactive material will depend on the nature, the severity, the physical/chemical form, and the radioisotopic composition of the release. The Emergency Director, REC or MSL will determine the extent and nature of post-accident radiological monitoring.

For events that occur during normal working hours, sufficient radiation protection personnel would normally be available to support several monitoring teams. During other times, the number of radiation protection personnel may be limited at the onset of the event. In this case, the Emergency Director, REC, or MSL will assign priorities for radiological monitoring based on the known or expected extent and severity of the release and/or related radiological conditions while the emergency organization is being augmented.

The ability to sample and analyze for I-131 meets NRC Commitment 03002A.

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5.0 PRECAUTIONS

- 5.1 Exposures of on-site monitoring personnel should be in accordance with administrative control levels. They should have proper dosimetry, which is frequently checked, remain alert to their own exposure and request relief if cumulative exposure approaches administrative control levels. The Emergency Director may authorize exposure limit extensions if necessary (refer to EPIP A.2-401 (EMERGENCY EXPOSURE CONTROL)). All exposures should be maintained ALARA.
- 5.2 During portable radio communications, observe the following precautions.
- 5.2.1 Radio communications can be intercepted by commercially available scanners. All communications must be brief, factual and free of exclamatory or alarming expressions.
- 5.2.2 Carefully word transmissions to minimize confusion, in particular, avoid abbreviations such as "mrem" which could be misinterpreted as "Rem".

6.0 INSTRUCTIONS

6.1 MSL Recordkeeping

- 6.1.1 Record data, trends, and other information of radiological significance in the REC log book in accordance with the following guidance:
- A. Significant events on the time(s) which they occur including changes in plant conditions, radiological releases, and trends.
 - B. Record key decisions and strategies developed (or implemented).
- 6.1.2 Periodically monitor the distribution of completed forms in the Radiation Protection area (of the TSC) to ensure accurate, consistent, approved information is used by REC.
- 6.1.3 Ensure all completed forms are filed in the appropriate container provided and retained as emergency records.

6.2 On-site (Out of Plant) Surveys

- 6.2.1 If a radioactive release is occurring or has occurred, determine (estimate) if the release is equivalent to or greater than the levels specified in GUIDELINE 1 (entitled "Radioactive Effluents") of EPIP A.2-101 (CLASSIFICATION OF EMERGENCIES) for an ALERT or higher classification.

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- 6.2.2 If the release is determined or estimated to exceed the Alert levels, in A.2-101, direct the RPC (or any available RPT if the RPC is not yet manned) to assemble a survey team to perform on-site, out-of-plant survey in accordance with the following guidance:
- A. Assemble a monitoring team to perform surveys per EPIP A.2-410 (OUT-OF-PLANT SURVEYS).
 - B. If necessary, initiate an Emergency RWP Checklist in accordance with EPIP A.2-107 (ACTIVATION AND OPERATION OF THE OSC).
 - C. Brief the team on affected sectors to be surveyed, potential radiological conditions or other hazards, precautions and protective clothing requirements.
 - D. Equip the team with a Rad Team frequency radio (from the TSC), direct the team to establish and maintain radio communication with the Field Team Communicator in the TSC.
 - E. Dispatch the team to perform surveys in affected areas.
- 6.2.3 Determine the starting point of the survey based on the release point, source term, magnitude of the release, wind direction, and dose projection data (if applicable). Request the initial surveys in this portion (affected sector) of the protected area.
- 6.2.4 Direct the team be dispatched to the selected survey points on Form 5790-201-04 (PROTECTED AREA SURVEY POINTS) and conduct Beta/Gamma dose rate surveys. Surveys should be performed in the following areas, as applicable.
- A. Site areas which may be affected by shine from 1027 EL Reactor Building;
 - B. Stack area (if high stack release occurring);
 - C. Plant structure perimeter (if significant fuel damage has occurred or is suspected) especially outside Rx Bldg railroad doors;
 - D. Protected area perimeter;
 - E. Security Officer station in the gatehouse or the plant access road (if posted);
 - F. Other site locations where personnel are or may be present such as the Cold Machine Shop, office trailers and SAB.
- 6.2.5 Direct the Field Team Communicator to record survey results on Form 5790-202-01 (OFF-SITE SURVEY RESULTS DATA LOG).

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- 6.2.6 Direct the Field Team Communicator to periodically up-date the team(s) on plant conditions, emergency classification changes, protective actions, etc. as information becomes available.
- 6.2.7 Direct the team to check personal dosimetry and request relief if their exposure approaches administrative limits.
- 6.2.8 Based on initial survey results request back-up surveys or confirmatory sampling as necessary.
- 6.2.9 Upon completion of on-site, out-of-plant survey operations direct the team(s) to report to OSC for exposure processing, de-briefing and re-assignment.

6.3 In-Plant Surveys

NOTE: In-Plant survey team(s) are coordinated and directed by the RPC (when manned) in the OSC via portable radio.

- 6.3.1 Direct the RPC (or any available RPT) to assemble survey team(s) as necessary, to perform in-plant surveys/sampling.
- 6.3.2 Direct the RPC to dispatch team(s) to selected survey areas and conduct surveys/sampling activities. Depending on the event, perform surveys in the following areas, as applicable.
 - A. In-plant area(s) that were locally evacuated based on Area Radiation Monitors (ARMs) or Continuous Air Monitors (CAMs) should be surveyed to verify the alarm condition.
 - B. In-plant area(s) that have higher than normal radiation levels (as indicated by ARM or CAM) to determine the reason for the elevated levels.
 - C. Pre-job surveys for areas in which work is planned or scheduled to occur in accordance with Form 5790-107-04 (EMERGENCY WORK REQUEST) and where radiological or environmental (steam area) conditions are NOT subject to rapid change.
- 6.3.3 Direct the RPC to notify the MSL of any significant changes in surveys/samples obtained from team.
- 6.3.4 Periodically up-date the team(s) on plant conditions, emergency classification changes, protective actions, etc. as information becomes available.
- 6.3.5 Upon completion of in-plant survey operations the team(s) should report to OSC for exposure processing, de-briefing and re-assignment.
- 6.3.6 Direct the RPC to forward survey results to the MSL by telephone or hardcopy via messenger.

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6.4 Habitability and On-Site Protective Actions

NOTE: Initial habitability surveys should consist of general area dose rates. If significant releases are occurring or if the Continuous Air Monitors (CAM) alarms, initiate periodic air sampling (particulate and iodine) and smearable contamination surveys in the affected response centers.

- 6.4.1 Direct the RPC to perform habitability surveys in the following occupied areas:
 - A. Control Room
 - B. Operational Support Center (OSC)
 - C. Technical Support Center (TSC)
 - D. Access Control (including SAS)
 - E. Security Building
 - F. Designated on-site Assembly Point
 - G. Gate House
- 6.4.2 Review the habitability survey results and compare the results to the ON-SITE PROTECTIVE ACTION GUIDELINES, listed in FIGURE 7.1. Recommend on-site protective actions to the Radiological Emergency Coordinator (REC) as necessary.
- 6.4.3 Monitor effluent release paths. If effluent levels exceed the alarm setpoint(s) (alert levels in A.2.101) consider placing the EFT and EVS systems in service.
- 6.4.4 If loose surface contamination levels in manned response centers, within the Control Room EFT and TSC Emergency Ventilation System (EVS) envelopes reach 1000 dpm/100cm², coordinate the establishment of strict contamination control measures for the EFT and EVS envelopes as follows:
 - A. Ensure the EFT and EVS boundaries doors are closed and properly posted in accordance with EPIP A.2-106, (ACTIVATION AND OPERATION OF THE TSC).
 - B. Direct the setup of a step-off pad and personnel frisking station at the designated entrance doors to the Control Room EFT and TSC EVS boundaries.
 - C. Process contaminated personnel in accordance with EPIP A.2-402 (ON-SITE RADIOLOGICAL MONITORING).

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D. Continue periodic habitability surveys in manned response centers.

6.4.5 If and when strict contamination control measures are implemented within the EFT and EVS envelopes consider restricting eating, drinking and chewing.

6.4.6 Recommend the issuance of personal direct reading dosimetry in manned response centers to the REC/ED if dose rate in manned response centers is increasing and expected to reach .5 mr/hr (refer to FIGURE 7.1). Also consider the issuance of direct reading dosimetry to other site personnel that are required to perform duties outside the protected area (e.g., Security staff at the gatehouse). Coordinate the issuance of dosimetry in the Control Room and other site personnel outside the protected area. Form 5790-201-02 (DOSIMETRY ISSUANCE LOG) should be used to record personal dosimetry data in each response center when Pocket Ion Chambers are used.

NOTE: Electronic dosimeters are the preferred choice of dosimetry.

6.4.7 Ensure habitability survey results are posted on the Radiological Status Board in the TSC and OSC.

6.4.8 Recommend relocating TSC and OSC personnel to another location (i.e. Emergency Operations Facility, if operational), when dose rates in manned response centers \geq 1000 mrem/hr.

7.0 FIGURES

FIGURE

7.1 On-Site Protective Action Guidelines

DDE BODY EXPOSURE RATES (mrem/hr)

| 0.5 | 2.5 | 100 | 1000 |
|--|---|---|---|
| Issue dosimetry in occupied Response Centers. Evacuate unnecessary personnel and declared pregnant women (DPW) | Evacuate occupied areas not part of the emergency response. | Evaluate Personnel Doses. Implement A.2-401 for vital personnel, evacuate all others. | Consider evacuation of all affected areas except the Control Room |

SMEARABLE SURFACE CONTAMINATION (dpm/100 cm²)

| 1000 | 5000 |
|---|--|
| Establish EFT and EVS contamination control. Evacuate occupied areas within the Clean Area not part of the emergency response effort. Control eating, drinking, and smoking in occupied Response Centers. | Consider Implementing Protective Clothing use in Response Centers. |

AIRBORNE RADIOACTIVITY DERIVED AIR CONCENTRATION

DAC-Ratio

| .3 | 1.0 | 10 |
|--|---|---|
| Evacuate occupied areas not part of the emergency response effort. | Evaluate personal DAC Hours. Consider respirator use. | Evacuate ALL personnel not vital to the emergency response effort. Consider KI use. |

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FIGURE

7.2 Forms Utilized in this Procedure

1. 5790-201-04 PROTECTED AREA SURVEY POINTS
2. 5790-202-01 OFF-SITE SURVEY RESULTS DATA LOG
3. 5790-201-02 DOSIMETRY ISSUANCE LOG
4. 5790-107-04 EMERGENCY WORK REQUEST