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DOCUMENT CHANGE NOTICE NO. 140

DATE: January 17, 2001

FROM: YNPS Site Services Department

DOCUMENT: Implementing Procedures to the Emergency Plan

1. Enter the attached documents in your manuals and/or files, discard all obsolete copies, and return this form to the Site Services Department at Yankee-Rowe, or DE&S Records Center, as applicable within 30 Calendar days.

[X] YNPS Site Services [ ] DE&S Records Center - Marlborough

2. SAFEGUARDS INFORMATION DOCUMENTS

ALL OBSOLETE copies shall be returned to the Security Shift Supervisor for SHREDDING. SAFEGUARDS INFORMATION documents shall be hand-to-hand delivered or enclosed in two properly sealed and addressed envelopes. Return this form to the Site Services Department.

**DESCRIPTION OF CHANGE:** ISSUANCE: Implementing Proc. to the E-Plan

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PROCEDURE NO.      REV. NO.

OP-3305      22

**DOCKET NO. 50-29**  
**LICENSE NO. DPR-3**

Please sign and return to:      Renee Prilipp  
Yankee Atomic Electric Co.  
49 Yankee Rd.  
Rowe, MA 01367

Departmental Working Copies have been Reviewed and Working Copy Files Updated.

N/A  
Departmental Signature (N/A if not applicable)

The above documents have been entered in the applicable Department Manuals and/or files and all Obsolete copies have been discarded or identified as obsolete. [3, 5.2.15, Paragraph 9, Item 4] SAFEGUARDS INFORMATION documents will be handled per #2 above.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

A045

YANKEE NUCLEAR POWER STATION  
IMPLEMENTING PROCEDURES TO THE EMERGENCY PLAN  
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IMPLEMENTING PROCEDURES

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**EMERGENCY MEDICAL/CONFINED SPACE RESPONSE ACTIONS**

**SCOPE**

This procedure outlines the basic requirements and actions to be followed by plant personnel in the event of an incident requiring medical response including a confined space emergency. It includes medical emergency notifications, the actions required of specific plant personnel, and the actions to consider when injuries may be complicated by radiation exposure or contamination.

**ENCLOSURES**

OP-3305 - Pgs. 1-2  
Attachment A - Pgs. 1-3  
OPF-3305.1 - Pg. 1  
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**REFERENCES**

1. Yankee Plant Defueled Emergency Plan
2. Plan and Procedures for Treatment and Decontamination of Radioactively contaminated and Injured Patients at North Adams Regional Hospital.
3. AP-0227, "Condition Reporting, Investigation and Self-Assessment"
4. AP-2016, "Event Administrative Actions"
5. OP-Memo 2E-4, "ERO Augmentation"
6. Qualified Personnel Manual
7. AP-0620, "Confined Space Permits: Requests, Issue, Use, Update and Termination"

**DISCUSSION**

This procedure is initiated by the Shift Supervisor whenever response by the emergency medical team or confined space rescue team is necessary. The most likely sequence is as follows:

- The incident is identified.
- The incident or injury is reported to the CR.
- First aid is applied.
- An ambulance and hospital are called.
- An injured person departs from the site.

- Work area cleanup is initiated or area is barricaded.
- The hospital is contacted with followup data.
- Documentation required for accident communication is assembled.

The majority of Fire Brigade personnel are trained in medical response and in confined space rescue. Medical response and confined space rescue personnel are trained to respond to injured personnel whose condition may be complicated by radiation exposure and/or contamination or the need for rescue. Qualified medical response personnel will be listed in the Qualified Personnel Manual. During a medical emergency, medical response personnel may encounter adverse radiological conditions and should follow the guidance of radiation protection trained personnel prior to entering a radiologically controlled area.

**PRECAUTIONS**

None

**PREREQUISITES**

1. Medical response personnel have been trained in first aid and CPR.

**PROCEDURE**

1. Based on your assigned function, follow the procedural guidance of the appropriate attachment listed below:

<u>Attachment</u>	<u>Title and Implementation Responsibilities</u>
A	Control Room Personnel
B	Medical Response Trained Personnel
C	Radiation Protection (RP) Trained Personnel
D	Ambulance and Hospital Response Trained Personnel
E	Security Personnel
F	Confined Space Rescue Trained Personnel

**FINAL CONDITIONS**

As specified in the appropriate attachment.

**ATTACHMENT A**

**CONTROL ROOM PERSONNEL**

This attachment will be completed by Control Room personnel after receiving notification of a medical/confined space emergency. Control Room personnel will act as the primary communications point for hospital/plant/ambulance communications. The North Adams Regional Hospital Emergency Response Plan [2] establishes two categories for radiological medical emergencies:

Code Magenta - Treatment and decontamination of a patient with **non-life threatening injuries**. The Radiation Emergency Area (REA) in this type of incident will be the decontamination room.

Code Magenta Trauma Room: Treatment and decontamination of a patient with **life threatening injuries**. The REA in this type of incident will be the Trauma Room.

Based on information received from YNPS (OPF-3305.1) and from ambulance personnel, hospital personnel will determine which of the above two categories to prepare for.

**PROCEDURE**

1. Make the following announcement using the plant page system:

a. Select the appropriate announcement:

1) "Attention in the Plant, Attention in the Plant"

"Medical Emergency, Medical Emergency, Medical Emergency."

"Medical Team members proceed to \_\_\_\_\_."  
(location)

"All other personnel stand clear of the area."

**OR**

2) "Attention in the Plant, Attention in the Plant"

"Confined Space Emergency, Confined Space Emergency, Confined Space Emergency" (Describe the nature of the emergency and its location.)

"Rescue and medical team members proceed to \_\_\_\_\_."  
(location)

"All other personnel stand clear of the area."

b. Repeat the announcement.

2. Maintain communications with medical/rescue team for medical and/or radiological information. Contact or request additional assistance for medical/rescue personnel as necessary.
3. Initiate DP-2016, "Event Administrative Actions."
4. For a medical emergency that occurs on a backshift, weekend, or holiday: (Refer to OP-Memo 2E-4 for contact numbers)
  - a. For radiological emergencies, call an off-duty Radiation Protection Technician and have them report to the plant or meet the patient at the hospital.
  - b. For radiological emergencies, notify the Safety Oversight Manager/RPM or alternate for assistance in evaluating the radiological conditions described in Attachment C.
  - c. Notify the Duty Call Officer and the Plant Superintendent.
5. Record all pertinent data regarding the medical emergency in the Control Room Log.
6. Complete OPF-3305.1, "Medical Emergency Status and Notification Form," using all available medical and/or radiological information received from the Medical response personnel.
7. If necessary, call in replacements for the shift complement within two hours.
8. Upon notification by a medical response person that transportation to an off-site medical facility is required, then contact Shelburne Control 9-911 (Back up No. 9-625-8200):
  - a. Request that an ambulance respond to Yankee Nuclear Power Station in Rowe
  - b. State the nature of the injury

**NOTE:** Only indicate contamination if RP has confirmed and data is available or if suspected of being contaminated (e.g., wearing full PC's, or injuries in contaminated area where frisking is not possible). Ambulance personnel are prepared to address contaminated injuries and do not necessarily need to know this ahead of arrival.

  - c. State whether or not the individual is contaminated
  - d. Provide Plant Shift Supervisor's phone number - (424-2235)

**NOTE:** Per agreements signed under the Emergency Plan, any injured person who is contaminated will be transported to the North Adams Regional Hospital. If injured person is not contaminated, then either Franklin Medical Center or North Adams Regional Hospital may be used.

9. If RP has confirmed that the individual is contaminated, or if the individual is suspected of being contaminated (e.g., wearing full PC's or injuries in a contaminated area where frisking is not possible) then contact the North Adams Regional Hospital (9-663-3701):
  - a. Identify yourself as calling from Yankee Nuclear Power Station and ask to speak to the EMERGENCY ROOM TRIAGE NURSE MANAGER.
  - b. State the nature of the injury and that the individual is contaminated (provide information contained on OPF-3305.1)
  - c. Provide Plant Shift Supervisors phone number (424-2235).

**NOTE:** Emergency dosimetry is not necessary if the victim is not contaminated.

10. Contact the Security Shift Supervisor to inform him that an ambulance has been called and to expedite access of ambulance personnel to the emergency area by assigning an officer as an escort and issuing dosimetry and visitors badges to the ambulance personnel. Ensure officer retrieves visitors' badges and injured person(s) badge(s) prior to exiting the site.
11. Notify the Public Affairs Representative. (refer to OP-Memo 2E-4 for contact numbers)
12. For radiological medical emergencies in which the injured worker is sent to the hospital, notify the Massachusetts Department of Public Health. (This is an informational call, give the department representative the information on the Medical Emergency Status and Notification Form (OPF-3305.1), refer to OP-MEMO 2E-6 for telephone numbers.)

**FINAL CONDITIONS**

1. The patient has left the site and has arrived at the off-site medical facility.
2. All pertinent data has been recorded in the Control Room Log.
3. Initiate a Condition Report for this incident. [3]

**MEDICAL EMERGENCY STATUS AND NOTIFICATION FORM**

PATIENT: Name: _____			
Location: _____		Date/Time: _____ / _____	
MEDICAL PROBLEMS: (including vital signs): _____ _____ _____			
FIRST AID MEASURES GIVEN: _____ _____ _____			
RADIATION INJURY:			
• EXPOSURE?	Yes	No	mR/ (received)
• EXTERNAL CONTAMINATION?	Yes	No	Possible mR/hr'
• INTERNAL CONTAMINATION (INHALATION)	Yes	No	Possible
• Decontaminated?	Yes	No	
Special equipment needed by ambulance or at hospital?	Yes	No	
List special equipment needed: _____			
Transporting Ambulance Company: Charlemont Other (specify)			
AMBULANCE ETA: At Plant: At Hospital:			
• RP will accompany the patient to the hospital			
• RP will meet the patient at the hospital.			
NOTES: _____ _____ _____			

Name of Plant Person Making Call: \_\_\_\_\_

Name of Hospital Person Receiving Call: \_\_\_\_\_

Contamination should be reported to the hospital in mR/hr. Convert as necessary: 4,000 cpm = 1 mR/hr.

**ATTACHMENT B**

**MEDICAL/RESCUE RESPONSE TRAINED PERSONNEL**

This attachment will be used by the medical/rescue response trained personnel after receiving notification of a medical/rescue emergency. Since each medical emergency is unique, the steps in this attachment should serve only as an outline of medical response trained personnel actions. Therefore, actual response actions may be improvised by medical response trained personnel based on their expertise and assessment of the incident.

**PROCEDURE**

A. Incident Response

\*\*\*\*\*  
**CAUTION:** If the medical emergency involves a confined space, also follow the procedural requirements of Attachment F.  
\*\*\*\*\*

1. Respond with the following equipment, as necessary:
  - Jump Kit.
  - Biobin.
  - Scoop stretcher and/or backboard.
  - Oxygen tank and mask.

2. Survey the scene to ensure that it is safe for medical/rescue personnel to approach the victim.

**NOTE:** Rescue and treatment of all accident victims should be the primary concern. Radiation exposure or contamination of the victim should be a secondary concern.

**NOTE:** Always treat the medical condition first prior to moving the victim unless other life threatening hazards exist (eg. fire, estimated dose greater than 100 rem TEDE, etc.)

3. Determine if the need to rescue or move the victim (prior to providing medical treatment) exists due to life-threatening hazards to the victims and rescuers.
  - a. Obtain professional medical advice via H&S Manager, as necessary.
4. Conduct a "Primary Survey" and provide first aid for urgent care needs.

5. Conduct a "Secondary Survey" and provide additional first aid as needed.
6. If more than two medical response trained personnel respond to the incident, then designate a medical team leader.
7. The medical team leader will delegate the following duties to other team members or standby personnel:
  - Assign a person to record the emergency medical assessment on the "Emergency/Injury Evaluation Form" provided in the Jump Kit.
  - Assign a person to act as the medical team communicator (eg., Security Officer with radio). This person will maintain communications with the Control Room until the emergency is terminated. Important information to communicate includes:
    - Emergency area conditions.
    - Evaluation of the need for life-saving actions.
    - Total number of accident victim(s).
    - Name(s) of victim(s).
    - Radiological conditions.
    - Medical actions performed.
    - The time from the CR that the victim and medical response personnel are clear of the emergency area.
    - The time from the CR that the victim is transferred to the ambulance.
8. Remain with the victim until:
  - The victim has been turned over to the ambulance crew.
  - The victim can take care of himself or herself.
  - The victim can be placed in the care of a Health Services Department representative.

B. Patient Transfer (if required)

**NOTE:** If possible, the transfer point should be outside the Restricted Area.

1. Assist in transporting the victim to the closest access to the ambulance.

**NOTE:** It is the responsibility of the on-site medical/rescue personnel to ensure the ambulance crew adhere to proper RP practices.

2. As soon as possible after their arrival, the medical response personnel should brief the ambulance crew on the status of the victim. Report:
  - The victim's medical status.
  - Treatment methods used.
  - Where to transport the victim.
  - Any radiological concerns.
3. Assist the ambulance crew with patient transfer to the ambulance stretcher.
4. Provide the ambulance crew with two copies of the Medical Emergency Status and Notification Form (OPF-3305.1). Inform them that one copy is for the hospital Emergency Department staff and one is for themselves.
5. In the event of radiological injuries, a radiation protection trained person should accompany the victim in the ambulance, if possible.
6. Inform the Shift Supervisor of the victim's status and any other pertinent information after the victim has left the site.

C. Equipment Return

1. Return all emergency medical equipment to the proper storage location(s).
2. Replace used equipment or notify the Health and Safety Supervisor as to what is needed.
3. Note "part-full" or "empty" on the oxygen tank tag if oxygen was used.

**FINAL CONDITIONS**

1. The victim has left the site.
2. The Medical Team has medically "cleaned up" the area.
3. The Medical Team has reported the final onsite status of the patient to both the Control Room and the appropriate hospital.

ATTACHMENT C

ON-SITE RADIATION PROTECTION (RP) TRAINED PERSONNEL

This attachment will be used by Radiation Protection (RP) trained personnel who may respond to a medical emergency involving radiological accident injuries.

PROCEDURE

A. Incident Response

1. Proceed to the emergency area with a survey instrument.
2. Determine the dose rate and contamination levels in the emergency area.

**NOTE:** Rescue and treatment of all accident victims is the primary concern. Radiation exposure or contamination of the victim are a secondary concern.

3. a. Estimate the total doses received or expected to be received by the victim.
- b. Assess the personnel contamination status of the victim.

**NOTE:** Always treat the medical condition first prior to moving the victim unless other life threatening hazards exist (eg. fire, estimated dose greater than 100 rem TEDE, etc.)

4. Based on Steps 2 and 3 above, consult with the medical response personnel to determine if the victim's injuries take precedence over his or her radiation exposure and/or bodily contamination. Have a medical response person notify the Control Room of the team's decision.
5. Evaluate, suggest, and initiate radiation protection measures for the medical response personnel and the victim.
6. Perform a radiological survey as time permits and note areas of contamination on the victim. Attempt to identify the isotope(s) present and the amount of activity.

\*\*\*\*\*

**CAUTION:** Gross decontamination of the victim should be accomplished to the extent that the stability of the patient is not endangered.

\*\*\*\*\*

7. Decontaminate the victim and/or maintain contamination control as practicable (e.g., remove the victim's contaminated clothing, jewelry, and gross contaminants as practicable).

8. Assist in transporting the victim to the closest access to the ambulance.
9. If necessary, provide any appropriate protective clothing to the ambulance personnel.
10. Notify the Control Room as to the contamination status of the victim.

**FINAL CONDITIONS**

1. Survey equipment has been returned to its proper storage location(s).
2. Any documentation has been forwarded to the Radiation Protection Manager.

ATTACHMENT D

RADIATION PROTECTION TRAINED PERSONNEL ASSISTING AMBULANCE AND  
HOSPITAL PERSONNEL

This attachment will be used by personnel trained to respond with the ambulance and hospital personnel. Generally, the plant's RP trained responder will remain with the victim and the hospital's RP trained responder will provide protection/care for their personnel.

PROCEDURE

1. Coordinate with the ambulance crew to maintain contamination control during patient transport.
  2. Advise the hospital Radiation Emergency Area (REA) staff of exposure problems in terms of:
    - The patient's exposure.
    - Staff exposure.
    - The location, level, and potential for spreading any contamination.
  3. Dress in protective clothing prior to entering the hospital REA, if required to enter the REA.
  4. Assist in controlling radiation exposure at the hospital:
    - a. Determine the adequacy of traffic control in the REA, post-contamination areas, as necessary.
    - b. Supervise and regulate the radiological protection of personnel involved throughout emergency treatment.
    - c. Assist the hospital's Radiation Safety Officer in monitoring and evaluating personnel exposure.
- NOTE:** The ambulance crew must be monitored and decontaminated, if necessary, before being permitted to leave.
- NOTE:** The ambulance must be monitored and decontaminated, if necessary, before being permitted to leave the hospital area.
- d. Ensure that all involved personnel are monitored and decontaminated, as necessary, prior to leaving the REA.
  5. Assist in the decontamination of the patient, as permitted by the REA doctor in charge.
  6. Survey the patient and stretcher in the Buffer Zone to ensure that neither became contaminated in the transfer. Decontaminate if required.

**NOTE:** All specimens shall be labelled "Biohazard container".

7. Save and label all specimens of urine, vomitus, feces, blood, tissue, and metals from patient and return them to the plant for use in radiation evaluations, as appropriate.
8. Survey equipment and hospital property after the emergency. Record radiation surveys of personnel and property.
9. Assist the hospital staff with REA decontamination activities.
10. Collect patient and ambulance dosimetry, if issued, and return it to the plant.
11. Collect used protective clothing and all other contaminated material and wastes. Package and return this material to the plant for laundering or disposal.

**FINAL CONDITIONS**

1. The patient has been placed in the care of the hospital.
2. All specimens collected (except for blood) have been forwarded to the Yankee Environmental Lab for radiological evaluation or are properly labeled and stored at YNPS for subsequent disposition.

**ATTACHMENT E**

**SECURITY PERSONNEL**

This attachment will be used by Security personnel after receiving notification of a medical emergency.

**PROCEDURE**

	<u>Time Done</u>	<u>Initials</u>
<b><u>NOTE:</u></b> The following actions apply only if an ambulance is required to transfer the victim off-site.		
1. Notify the Control Room when the ambulance arrives at the Gatehouse.	_____	_____
2. Provide an officer to escort the ambulance to the transfer point, if available.	_____	_____
3. a. Issue dosimetry to the ambulance crew if they will be entering the Restricted Area or are transporting a contaminated injured individual.	_____	_____
b. Instruct the Security Officer escorting the ambulance to ensure that the victim's ID badge and key card are removed before the victim leaves the site.	_____	_____
4. Maintain communications with the officer escorting the ambulance, if available.	_____	_____
5. a. Verify that the officer escorting the ambulance has exchanged the victim's normal dosimetry and replaced it with emergency dosimetry.	_____	_____
b. Forward the victim's regular dosimetry to the Radiation Protection Department at the conclusion of the emergency.	_____	_____
6. Retrieve all security badges prior to the ambulance leaving the site.	_____	_____
7. Notify the Control Room when the ambulance leaves the plant site.	_____	_____

**FINAL CONDITIONS**

1. The victim has left the site.

**ATTACHMENT F**

**CONFINED SPACE RESCUE TRAINED PERSONNEL**

This attachment will be used by confined space trained personnel.

**PROCEDURE**

\*\*\*\*\*

**CAUTION:** Emergency rescue teams must consist of trained individuals and an attendant at the entry point.

\*\*\*\*\*

1. Respond with the following equipment, as necessary:

- Rescue "Grab and Go" Bag
- Self Contained Breathing Apparatus (SCBA)
- Personal Protection Equipment
- Safety Harness and Lifeline
- Rescue Tripod and Winch Retrieval System
- Portable Lighting
- Ventilation Equipment

**NOTE:** Non-entry rescue is preferred, however, entry rescues if needed may be performed provided rescue personnel are wearing protective equipment appropriate for the hazards within the confined space.

2. If entry is required:

a. Obtain a verbal emergency entry authorization from the Operations Shift Supervisor.

**NOTE:** Adhere to the 2 in - 2 out concept for confined space entries into potential IDLH atmospheres.

b. Don SCBA, as necessary, and harness, attach lifeline, obtain lighting, if necessary, enter the confined space and retrieve the injured individual(s).

**NOTE:** All efforts should be made to remove the injured individual(s) so that medical treatment can take place outside the confined space, unless doing so will endanger their life.

**FINAL CONDITIONS**

1. Complete a Confined Space Work Permit (CSWP) after the emergency rescue is completed, if rescue entry has occurred.