

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-54/84-03

Docket No. 50-54

License No. R-81

Licensee: Union Carbide Corporation

Medical Products Division

Tuxedo, New York 10987

Facility Name: Union Carbide Nuclear Facility

Inspection At: Tuxedo, New York

Inspection Conducted: July 23-26, 1984

Team Members: Ira Cohen, Emergency Preparedness Specialist (Team Leader)
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Inspector: Ira Cohen
Ira Cohen, Emergency Preparedness
Specialist

9-14-84
date

Approved by: Ronald R. Bellamy for
Hilbert W. Crocker, Chief
Emergency Preparedness Section
NRC Region I

9/14/84
date

SUMMARY

The appraisal of the emergency preparedness program at the Union Carbide Nuclear Facility involved six general areas:

- Emergency Organization
- Emergency Training
- Emergency Facilities and Equipment
- Procedures which Implement the Emergency Plan
- Coordination with offsite support groups
- Walk-throughs of emergency duties

The development of the Emergency Preparedness Program at the Union Carbide Nuclear Facility was performed by individuals of the staff at the site. On May 16, 1984, the emergency plan dated August 8, 1983 was approved by the Division of Licensing. By letter dated May 16, 1984 to the licensee, the licensee was requested to fully implement the emergency plan within 120 days of the date of the letter.

The review of the above listed areas indicated that there were no significant deficiencies within any of these areas. Therefore, the inspectors concluded that the emergency preparedness program is capable of providing reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

The inspectors identified several improvement items (see Appendix A) for consideration by the licensee.

The inspectors conducted an exit meeting on July 26, 1984, with attendees shown in Annex A, and discussed the findings.

At no time during this appraisal has written material been provided to the licensee by the inspectors.

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1.0 Emergency Organization

The inspector reviewed the overall emergency organization as described in Section 3 of the emergency plan and noted that appropriate authorities, functional areas, lines of succession and interfaces had been established.

Based on the above findings this portion of the licensee's program is acceptable.

1.1 Onsite Organization

The inspectors held discussions and conducted walk-throughs with on-site response personnel having key positions within the organization and noted that response personnel interviewed demonstrated a capability to perform effectively in the event of an emergency. However, interviews with various personnel identified areas of improvement which are shown below.

Based on the above findings this portion of the licensee's program is acceptable, but the following matters should be considered for improvement:

Identify within the emergency plan or implementing procedures as to which emergency director responsibilities cannot be delegated.
(50-54/84-03-01)

Provide written guidance for the Public Information Officer in regard to the issuance of information in the event of an emergency.
(50-54/84-03-02).

Additional training is needed by members of the emergency organization as to the contents of the emergency plan and the interactions with various members of the organization. (50-54/84-03-03)

1.2 Emergency Support Organization

The inspectors noted that arrangements were made by the licensee for fire, police, security, ambulance and medical support. However, a review of records and interviews with various support personnel identified areas of improvement which are shown below.

Based upon the above findings this portion of the licensee's program is acceptable, but the following matters should be considered for improvement:

Update letters of agreement with offsite emergency support organizations. (50-54/84-03-04)

Obtain a letter of agreement with local ambulance services.
(50-54/84-03-05)

Complete initial training of all offsite support organizations and provide for periodic retraining and participation in emergency drills. (50-54/84-03-06)

2.0 Emergency Response

2.1 Notifications and Activation of the Emergency Organization

The inspectors reviewed Section 5.0 and 7.0 of the emergency plan and emergency plan implementing procedures EP-01 through EP-14, conducted walk-throughs with response personnel involved with notifications and activations and noted that the licensee demonstrated an adequate program with regard to emergency notifications and activation. However, the inspectors identified areas of improvement which are shown below.

Based on the above findings, this portion of the licensee's program is acceptable but the following matters should be considered for improvement:

The emergency call list should show calls to Tuxedo and State Police in the event of a civil disturbance. (50-54/84-03-07)

Provide reliable backup communication means for notifying offsite emergency support organizations. (50-54/84-03-08)

2.2 Classification and Assessment

The inspectors reviewed classification and assessment procedures and conducted interviews and walk-throughs with individuals who would assume the role of Emergency Director. The inspectors noted that suitable emergency action levels are used to classify an emergency after the appropriate response actions are initiated and that radiological equipment (e.g. ARMS, CAMS, stack monitor) used to initiate an emergency response were in place and operable and that readouts were appropriately placed.

The inspectors reviewed operability checks of the radiological equipment and determined them to be acceptable.

The inspectors noted that the licensee was experiencing operability problems with the meteorological instrumentation being used to determine atmospheric stability.

The inspectors noted that adequate means are provided to perform isotopic analyses and gross sample counting of samples collected during an emergency.

Based on the above findings this portion of the licensee's program is acceptable but the following matters should be considered for improvement:

Provide a means for reliable meteorological instrumentation and designate a backup system or method for determining wind speed, wind direction and stability class. (50-54/84-03-09)

Eliminate Section 7.2.3 of the emergency plan which discusses methodology for calculating whole body dose rate at the site boundary based on in-plant radiation monitor readings. (50-54/84-03-10)

Provide emergency action levels within EP-02 and EP-03 for the stack monitor which will trigger notification of the Radiological Assessment Team Leader. (50-54/84-03-11)

Provide a statement in each emergency procedure as appropriate which would require the Emergency Director to classify the emergency using guidance in Tables 5.1 - 5.3 of the emergency plan. (50-54/84-03-12)

2.3.0 Facilities and Equipment

2.3.1 Emergency Support Center

The inspectors held discussions with licensee emergency response personnel, reviewed the description of the Emergency Support Center as included in the Emergency Plan, toured the primary and backup centers, inspected and tested the communication equipment and noted that suitable Emergency Support Centers had been established for use during a radiological emergency.

Based on the above findings this portion of the licensee's program is acceptable.

2.3.2 Protective Equipment

The inspectors held discussions with licensee personnel, inspected contents of dedicated emergency kits located at appropriate locations within the facility and concluded that adequate protective clothing, respiratory protection equipment, radiation detection equipment and personnel monitoring equipment would be available for use during a radiological emergency.

Based upon the above findings this portion of the licensee's program is acceptable.

2.3.3 Decontamination Capabilities

The inspectors held discussions with licensee health physics personnel, toured decontamination facilities, inspected decontamination supplies and equipment, reviewed

decontamination instructions and noted that the licensee had the capability to decontaminate personnel and to minimize the spread of contamination.

Based on the above findings this portion of the licensee's program is acceptable.

2.3.4 Equipment Maintenance and Calibration

The inspector held discussions with licensee health physics personnel, reviewed records of operability and calibration checks, inspected portable radiation monitoring equipment for operability and noted that suitable radiation monitoring equipment would be available for use during a radiological emergency.

Based on the above findings this portion of the licensee's program is acceptable.

2.4.0 Evacuation and Accountability

2.4.1 Evacuation

The inspector held discussions with licensee personnel, reviewed pertinent sections of the emergency plan and noted that appropriate defined conditions such as area radiation levels, alarms and events were established for complete or partial evacuation of the reactor hot lab facilities. However, the inspector noted a means was not provided to prevent access to the site in the event of evacuation.

Based on the above findings this portion of the licensee's program is acceptable but the following matter should be considered for improvement:

Provide means to control access to the site in the event of a site evacuation (50-54/84-03-13).

2.4.2 Accountability of Personnel

The inspector held discussions with licensee emergency response personnel, reviewed appropriate sections of the emergency response plans and noted that a means had been established to account for all personnel who may have been within the reactor building during an accident and that provisions had been established for segregation of potentially contaminated personnel.

Based on the above findings this portion of the licensee's program is acceptable.

2.4.3 Assembly Areas

The inspector held discussions with licensee personnel, reviewed pertinent sections of the emergency plan, toured primary and alternate assembly areas provided for emergency response and non-emergency response personnel and noted that suitable assembly areas had been established for use during a radiological emergency.

Based on the above findings this portion of the licensee's program is acceptable.

2.4.4 Personnel Monitoring

The inspector held discussions with licensee personnel, reviewed procedures EP-04, High Level Radiation/Criticality Recovery, HS-1, Personnel Radiation Protection and noted that there were provisions for monitoring all individuals evacuating the reactor building and hot laboratory facility and for monitoring potentially contaminated individuals at the primary and alternate assembly areas.

Based on the above findings this portion of the licensee's program is acceptable.

2.4.5 First Aid and Rescue

The inspectors held discussions with licensee personnel, inspected first aid equipment and supplies and noted that immediate first aid rescue could be administered by trained personnel.

Based on the above findings this portion of the licensee's program is acceptable.

3.0 Maintaining Emergency Preparedness

3.1 Emergency Training and Retraining Program

The inspectors reviewed Section 10, Maintaining Emergency Preparedness of the emergency plan, held discussions with licensee and off-site emergency response personnel and noted that although initial training had been provided to response personnel a formal training program had not yet been established. Presently, the licensee's training program did not yet include documentation as to types of training given, lesson plans, provisions for quizzes nor a training manual.

Based on the above findings, this portion of the licensee's program is acceptable but the following matter should be considered for improvement:

Develop a formal training/retraining program for emergency response personnel. (50-54/84-03-14)

3.2 Drills

The inspectors held discussions with licensee personnel, reviewed Section 10.3 Emergency Drills and 10.4 Drill Evaluation of the emergency and noted that the annual emergency drill had not yet been conducted. The licensee intends to notify Region I as to the drill date.

Based on the above findings, this portion of the licensee's program is acceptable.

3.3 Maintenance of Procedures and Plan

The inspector reviewed Section 10.5 Emergency Plan Review and Update, held discussions with licensee personnel and noted that a means had been provided to update procedures and the emergency plan.

Based on the above findings this portion of the licensee's program is acceptable.

ANNEX A

INDIVIDUALS CONTACTED

- *W. G. Ruzicka, Manager, Nuclear Operations
- *D. D. Grogan, Manager, Radiochem Production
- *C. J. Konnerth, Manager, Health Safety and Environmental Affairs
- *J. J. Mc Govern, Business Manager
- *L. C. Thelin, H. P. Supervisor
- J. L. Ditton, H. P. Technician
- R. A. Johnston, Associate H. P. Senior
- K. Sunford, 2nd Assistant Chief, Tuxedo Fire Department
- J. Bond, Administrator, Tuxedo Hospital
- D. Weidner, President, Greenwood Lake Volunteer Ambulance Corps.
- R. A. Strack, Reactor Supervisor
- S. E. Lipinski, Lead Reactor Operator
- G. J. Premus, Senior Reactor Operator

*Indicates attendance at exit meeting.