

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-264/80-01

Docket No. 50-264

License No. R-108

Licensee: Dow Chemical, U.S.A.
1803 Building
Midland, MI 48640

Facility Name: Dow Nuclear Research Reactor

Inspection At: Dow Site

Inspection Conducted: August 28-29, 1980

Inspector: *H. J. Greer*
R. J. Greer

9/15/80

Approved By: *A. S. Januska for*
C. J. Paperiello, Acting Chief
Environmental and Special
Projects Section

9/15/80

Inspection Summary

Inspection on August 28-29, 1980 (Report No. 50-264/80-01)

Areas Inspected: Routine, unannounced inspection of Emergency Planning, including: a review of the Emergency Plan; an examination of coordination with support personnel; an examination of facilities and equipment, and medical arrangements, and an examination of drills and training. The inspection involved ten inspector-hours on site by one NRC inspector.

Results: No apparent items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

*O. Anders, Reactor Supervisor
*K. Kelly, Senior Reactor Operator
*J. Maki, Building Supervisor
*E. Bickel, Industrial Hygienist
T. Parsons, Industrial Hygienist
S. Humbyrd, Operations Supervisor, Plant Protection and Security
D. Ducommon, M. D. Medical Department
M. Graham, R. N. Director of Nursing, Medical Department

*Indicates those present at the exit interview.

2. Emergency Plan

The licensee's Emergency Plan is dated April 15, 1977. The inspector reviewed it and determined that it contained the major elements of emergency preparedness discussed in Regulatory Guide 2.6, "Emergency Planning for Research Reactors," dated January, 1979.

3. Coordination with Support Agencies

The inspector contacted members of the licensee's Health Physics and Industrial Hygiene, Plant Protection, and Medical Departments and discussed the arrangements made to provide assistance in the event of an emergency. Discussions with representatives of those departments showed that there is close coordination between them and reactor personnel. The Plant Protection Department would provide security as well as ambulance services to reactor personnel as necessary. The Department maintains an emergency vehicle which contains emergency supplies and survey instrumentation. The licensee's Medical Department provides medical support and has prepared a procedure for the treatment of contaminated injuries.

No items of noncompliance or deviations were noted.

4. Facilities and Equipment

The inspector examined the licensee's emergency equipment, radiation survey monitoring equipment, and supplied air respiratory equipment for maintenance and operability. The equipment appeared to be maintained in a ready state. Survey instrumentation examined was operable and calibrated on the required frequency. The reactor room is equipped with a continuous air monitor and area radiation monitor which have audible and visual alarms and are monitored by the reactor operators and at the plant protection communications center. These alarms were checked and found to be operable. The licensee has just developed two

emergency kits which contain various items of emergency supplies and clothing. These kits are to be taken from the facility in the event of an evacuation.

No items of noncompliance or deviations were identified.

5. Medical Arrangements

Injured personnel needing medical assistance would be transported to the Medical Department by a Plant Protection Department vehicle. The inspector and licensee representatives visited the Medical Department and found that it contained facilities for the decontamination of injured personnel, and provisions for retaining contaminated liquids. At least one physician in the Medical Department has been to a course detailing the treatment of radiation accident victims. Medical personnel were familiar with the treatment of contaminated injuries and had developed specific procedures for this treatment.

No items of noncompliance or deviations were identified.

6. Drills and Training

Licensee employees are retrained in the Emergency Plan during the requalification training for their operator's licenses. The inspector reviewed records of the training and selected examinations for content. No problems were noted. The licensee stated that support personnel and plant protection and fire are trained at least annually by the Industrial Hygiene Department. The inspector reviewed records of this training and verified that it was conducted.

The licensee conducts quarterly evacuation drills of his facility. The inspector reviewed drill records since 1977 and noted that drills for the last quarter of 1978 and the first quarter of 1979 were apparently not conducted. Licensee personnel stated that it is likely that these drills were overlooked; however, drills were conducted on a quarterly frequency from the first quarter 1979 to present. Licensee personnel stated that a reminder board has been developed to track requirements and other functions which are to be conducted on specific frequencies such as annual, semiannual, quarterly, and monthly. Evacuation drills are included under the quarterly requirement. The inspector examined this reminder board and verified that it should prevent the inadvertant omission of quarterly drills. No other problems were identified.

7. Exit Interview

The inspector met with licensee representatives denoted in Paragraph 1 at the conclusion of the inspection on August 29, 1980. The inspector summarized the purpose and scope of the inspection and its findings. An additional exit interview was conducted by telephone on September 3, 1980, with a licensee representative.