

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED: DOW Chemical Company Bay City, MI REPORT NUMBER(S) 04000017/2002-001 ³		2. NRC/REGIONAL OFFICE REGION III US NUCLEAR REGULATORY COMMISSION 801 WARRENVILLE ROAD LISLE IL 60532-4351	
3. DOCKET NUMBER(S) 04000017	4. LICENSE NUMBER(S) STB-00527	5. DATE(S) OF INSPECTION August 6, 2003	
6. INSPECTION PROCEDURES USED IP 87104	7. INSPECTION FOCUS AREAS Posting & Site Maintenance		

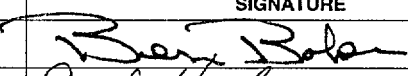

LICENSEE:

The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

- ☒ 1. Based on the inspection findings, no violations were identified.
- ☐ 2. Previous violation(s) closed.
- ☐ 3. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, NUREG-1600, to exercise discretion, were satisfied.
- _____ non-cited violation(s) were discussed involving the following requirement(s):
- _____
- _____
- ☐ 4. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.

STATEMENT OF CORRECTIVE ACTIONS

I hereby state that, within 30 days, the actions described by me to the Inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

TITLE	PRINTED NAME	SIGNATURE	DATE
LICENSEE	Ben Baker		8/8/03
NRC INSPECTOR	Edward L. Kulzer		08/06/2003

MATERIALS DECOMMISSIONING INSPECTION FIELD NOTES

Region: III

Inspection Report No.04000017/2003-001

License No.: STB-00527

Docket No.: 040-00017

Licensee (Name & Address):

Dow Chemical Company

Bay City, MI

Licensee Contact: Ben Baker

Telephone No. 989-636-0787

Date of Last Inspection: 7/23/2002

Date of This Inspection: 8/6/2003

Date of Next Inspection: 8/2004

Type of Inspection: (x) Announced () Unannounced

(X) Routine () Special

() Initial Decomm. (X) Reinspection of Decomm.

Level of Inspection: (x) Normal () Reduced () Extended

Brief Description of history on Licensee/Facility: License No. STB-527 in 1973 was issued to Dow Chemical Company to store up to 200,000 pounds of thorium at the licensee's Midland and Bay City sites. The operating license expired in 1978. The radioactive material at the Bay City site consists primarily of foundry slag containing low-levels of thorium. This was produced from the 1940s to 1970 as the residual from the production of magnesium-thorium alloy. The alloy was used for defense purposes, including aircraft engines and aeronautical structural components

In March of 2000, the Dow license was amended to release the Midland site for unrestricted use. The Bay City site consists of approximately 40 acres of which approximately 31 acres have been remediated since 1996. Dow has requested and submitted a revised decommissioning plan in 2001 and is working with NRC to provide additional information to support final approval.

Brief Description of Inspection Activities:

Inspect site security, posting and environmental monitoring data.

Brief Description of Findings and Action:

No findings.

Summary of Findings and Action:

(X) No violations cited, clear NRC Form 591X or regional letter issued

() Violation(s), clear NRC Form 591 issued

() Violation(s), regional letter issued

() Follow up on previous violations

Inspector: Edward H. Hulan Date August 6, 2003
(Signature)
Approved: [Signature] Date August 11, 2003

1. SUMMARY OF DECOMMISSIONING STATUS

A. Licensee ceased operational program. (x) Y () N

B. Required decommissioning financial assurance mechanisms in place. (x) Y () N

C. Decommissioning Plan (DP) required. (x) Y () N

D. Licensee final survey required. (X) Y () N

E. NRC confirmatory survey required. (X) Y () N

F. NRC closeout inspection required. (x) Y () N

G. Licensee doing decommissioning planning and preparation before dismantlement. () Y (x) N

H. Licensee actively remediating site. ☐ Y ☒ N

I. Licensee completed site remediation. ☐ Y ☒ N

Description of Facility Status:

Licensee has requested a revision in the decommissioning plans and is working with NRC HQ.

2. INSPECTION OF KEY DECOMMISSIONING ACTIVITIES

A. LICENSEE ACTIVITIES INSPECTED BEFORE DISMANTLEMENT

1. Licensed material used during operations has been removed from site. ☐ Y ☒ N
2. Facility license conditions are in place and met by licensee. ☒ Y ☐ N
3. Site security and control of contaminated material being maintained in compliance with 10 CFR 20.1801 and 20.1802. ☒ Y ☐ N
4. Support systems and services (e.g., lighting, water supply) are in place. ☒ Y ☐ N
5. Decommissioning schedules are consistent with timeliness requirements in 10 CFR 30.36, 40.42, and 70.38. ☒ Y ☐ N
6. Licensee's recordkeeping is consistent with 10 CFR 30.35, 40.36, and 70.25. ☒ Y ☐ N
7. Financial assurance requirements are being maintained in accordance with 10 CFR 30.35, 40.36, and 70.25. ☒ Y ☐ N
8. Licensee is conducting site characterization in accordance with applicable radiation protection procedures. ☐ Y ☐ N Licensee characterization plan has been completed.
9. Construction of new site features (e.g., roads, rail spurs, staging areas, sediment control ponds) conforms to DP and does not compromise health and safety of workers and public. ☐ Y ☒ N
10. Licensee activities conform to specific license conditions and licensee programs and procedures. ☒ Y ☐ N
11. Other licensee activities: ☐ Y ☐ N

Basis for Findings:

Direct observation of site conditions found security and postings in place.

B. LICENSEE ACTIVITIES INSPECTED DURING DECONTAMINATION,

DISMANTLEMENT, AND SITE REMEDIATION

1. Site security and control of contaminated material being maintained in compliance with 10 CFR Part 20. (X) Y () N

2. Decontamination and dismantlement of structures are being performed consistent with DP and sound industry practice (structures include buildings, utilities, treatment lagoons, etc.). () Y () N
Not applicable.

3. Decontamination and remediation of the following are being performed consistent with DP and sound industry practice:

a. Soil. (x) Y () N

b. Sediment. () Y () N

c. Surface waters. () Y () N

d. Groundwater. () Y () N

e. Other mediums:

_____ () Y () N

4. Licensee release and disposal of decommissioning wastes are consistent with DP and approved by NRC for:

a. Liquid wastes (e.g., groundwater, surface water, liquid from treatment ponds, process liquids). () Y () N

b. Solid wastes (e.g., building materials, process and other facility equipment, concrete rubble, soil). () Y () N

c. Other wastes: () Y () N _____

5. Temporary, on-site storage of low-level radioactive wastes from decommissioning meets license conditions and guidance in IP 84890. () Y () N

6. Packaging and shipment of radioactive waste materials meet requirements in 40 CFR Parts 173-178 and 10 CFR Part 71. () Y () N

7. Restoration of site - Licensee has restored site to meet license conditions and NRC-approved plans. () Y () N

8. Licensee survey of material and equipment for free release sufficient to demonstrate compliance with release criteria.

9. Other licensee activities: ☐ Y ☐ N

Basis for Findings:

The above areas were not looked at during this inspection. There has been no remediation work taking place at this site over the past year.

C. LICENSEE ACTIVITIES INSPECTED AFTER COMPLETION OF SITE REMEDIATION

1. Licensee has submitted NRC Form 314 for disposition of licensed material in accordance with 10 CFR 30.36, 40.42, and 70.38. ☐ Y ☐ N

2. Licensee's final survey program is acceptable (see Appendix B for inspection items for final surveys). ☐ Y ☐ N

3. NRC confirmatory survey performed. ☐ Y ☐ N

4. Site maintenance activities (if any, for restricted use) conform to license conditions and NRC-approved plans and are in place and functional. (X) Y ☐ N

5. Other licensee activities: ☐ Y ☐ N

Basis for Findings:

The licensee has maintained safe radiological conditions over the past year but has not conducted remediation until the proposed decommissioning plan has been reviewed and approved.

A. GENERAL OVERVIEW

1. Describe the licensee's decommissioning organizational structure:

Ben Baker- Project Manager

RSO- as yet not approved. No decommissioning activities are in progress.

2. Licensee is performing decommissioning activities in compliance with its approved DP. ☐ Y ☐ N

4. Licensee has implemented procedures for the decommissioning activities identified in the DP.

☐ Y ☐ N

5. The RSC and RSO fulfill license requirements to deal with all decommissioning activities. ☐
Y ☐ N

Basis for Findings:

Licensee is maintaining safe site conditions until the proposed decommissioning plan has been reviewed and approved. The reason for the site inspection was to check site conditions including security and postings.

B. FACILITIES

1. Describe, from field observation, the licensee-identified facilities and outdoor areas to be decommissioned:

Wetlands area where waste is buried in a landfill.

2. The licensee's remediation plan includes all the contaminated facilities and areas on-site and off-site. (X) Y ☐ N

3. All essential systems and services (e.g., electrical power, water supply, communication systems) are in place and functional for the planned decommissioning activities. (x) Y ☐ N

4. Licensee's emergency plan is in place and operative for the duration of decommissioning. ☐
Y ☐ N

Basis for Findings:

Direct observation of site conditions

C. MATERIALS

1. Radioactive materials licensed during operations have been removed offsite; residual quantities conform to license conditions. (X) Y ☐ N

2. Security and control of licensed materials, including contaminated areas, is being maintained. (x) Y ☐ N

Basis for Findings:

Direct observation.

D. RADIATION PROTECTION

1. The licensee's approved health physics program is being implemented in the field for new

decommissioning activities. () Y () N

2. Site security and control of contaminated material are in compliance with 10 CFR 20.1801 and 20.1802. (x) Y () N

Basis for Findings:

Direct observation.

E. RADIOACTIVE WASTE MANAGEMENT/EFFLUENTS/ENVIRONMENTAL MONITORING

1. All new effluent releases conform to DP and applicable regulations. (X) Y () N

2. The licensee's environmental monitoring program is being implemented in conformance with the DP and all applicable limits are being met. (x) Y () N

Basis for Findings:

Direct observation and records review.

F. POSTING AND LABELING

1. All contaminated areas, waste processing areas, and waste handling areas are posted in conformance with regulations. (X) Y () N

2. Packaged radioactive waste materials are labeled in accordance with regulations. () Y () N

Basis for Findings:

No waste shipments made.

G. OCCUPATIONAL HEALTH AND SAFETY

1. Describe the occupational health and safety observations made at the licensee's facilities:

No decommissioning activities being conducted.

2. Licensee and Occupational Safety and Health Administration were informed of occupational health and safety issues observed during the inspection. () Y (x) N

Basis for Findings:

Direct observation

3. VIOLATIONS, NON-CITED VIOLATIONS, FOLLOWUP ITEMS, AND OTHER

ISSUES

None