

MEMORANDUM TO: Donald A. Cool, Director
Division of Industrial and Medical
Nuclear Safety
Office of Nuclear Material Safety
and Safeguards

FROM: Bruce S. Mallett, Director
Division of Nuclear Materials Safety

SUBJECT: STATUS REPORT OF REGION II REVIEW OF OAK RIDGE
NATIONAL LABORATORY (ORNL) LIST OF POTENTIALLY
CONTAMINATED SITES

The quarterly status reports for those Region II sites contained on the ORNL list of formerly licensed sites identified as potentially contaminated are contained in Attachments I through 4. The status reports for those sites with an ORNL final score greater than 300 which remain open are in Attachment 1 and those with a score from 5 to 300 where Region II has performed some action are listed in Attachment 2. The status reports for those sites which are recommended for deletion are listed in Attachment 3. The information required for the Monthly Information Status Report is in Attachment 4. A tabular summary of all files assigned to Region II is in Attachment 5.

Region II recently received copies of most of the remaining files for the sites with sealed sources not accounted for. However, not all sealed source files on the ORNL list have been forwarded to Region II (Attachment 6). When all sealed source files are received, the seventy pending cases will be sorted by state and divided among the staff for follow-up and resolution.

If you have any questions regarding these reports or our evaluations, please contact Mr. Jay L. Henson of my staff at (404) 331-0344.

Attachments: (1) Reports for sites >300 (remain open)
(2) Reports for sites <300 (remain open)
(3) Reports for sites <300 (recommend deletion)
(4) Monthly Information Status Report
(5) Tabular summary for all Region II sites
(6) List of sealed source files not in Region II



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W., SUITE 2900
ATLANTA, GEORGIA 30323-0199

May 16, 1996



UNITED STATES
NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA STREET, N.W., SUITE 2900
 ATLANTA, GEORGIA 30323-0199

See previous concurrence

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|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| OFFICE | RII:DNMS | RII:DNMS | | | | |
| SIGNATURE | | | | | | |
| NAME | JHenson* | JPotter* | | | | |
| DATE | 06 / / 96 | 06 / / 96 | 06 / / 96 | 06 / / 96 | 06 / / 96 | 06 / / 96 |
| COPY? | YES NO |

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STATUS REPORTS FOR SITES WITH ORNL SCORE >300
(Remain In Open Status)

Background

On August 26, 1963, Union Carbide-Lawrenceburg was issued an SNM license authorizing possession of up to 500 grams of fully enriched (<94%) uranium for testing of equipment and processes in their Lawrenceburg Fuel Development Facility.

On May 22, 1964, the license was amended to authorize possession of 150 kilograms of U235 to make graphite-coated uranium-thorium carbide particles and graphite-matrix fuel elements.

The possession limit was increased to 475 kg. on June 12, 1964.

On December 6, 1964, a capsule containing 93% enriched uranium exploded in a furnace used to convert uranium oxide to uranium dicarbide. One additional capsule ruptured after being ejected from the furnace by the explosion. The two ruptured capsules contained 10.9 kg. of uranium. The licensee's description of the cleanup and associated sampling/monitoring performed **after the** incident does not clearly state the quantity of material that was recovered from the ruptured capsules. Soil samples were taken outside the fence around the facility, but there is no indication that soil samples were taken within the restricted area.

Liquid wastes containing "small amounts" (undefined) of non-recoverable licensed material were piped to two settling basins after being fluorometrically measured. Daily samples were also taken of liquid exiting the basin prior to entering Shoal Creek.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W., SUITE 2900
ATLANTA, GEORGIA 30333
REGIONAL INTERMEDIATE SITES LIST

SITE STATUS REPORT

MAY 13, 1996

Docket No. 070-00784

License No. SNM-00724

Licensee Name: Union Carbide Corporation

Site Name: Carbon Products Division

Site Address: 3 miles south of Lawrenceburg, TN

City: Lawrenceburg State: TN Zip: 38464

Regional Contact: Jay L. Henson Phone: (404) 331-0344

Status Summary:

ORNL Final Score: 15,456

SNM-724

Lawrenceburg, TN

Union Carbide Corporation License No.

Docket No. 070-00784

By letter dated February 4, 1974, the licensee submitted closeout survey information and requested that License No. SNM-724 be terminated and the facility be released for unrestricted use. (NOTE: The submitted survey does not include soil or settling basin sampling.)

In a March 15, 1974 memo, the Chief, Fuel Fabrication and Reprocessing Branch, AEC, stated that the submitted survey appeared to meet AEC guidelines for decontamination of facilities prior to release for unrestricted use, but desired that Region II perform a confirmatory survey.

On April 5, 1974, Region II performed a closeout inspection which was documented in Inspection Report 70-784/74-1. Region II recommended that the license be terminated and the facility released for unrestricted use. (NOTE: The report does not include soil or settling basin sampling.)

By AEC letter dated June 4, 1974, License No. SNM-724 was terminated and the facility released for unrestricted use.

Assessment

Region II evaluated the available survey data to determine if the information is sufficient to conclude that the building meets existing guidelines for unrestricted use. Region II determined that sampling of the soil in the former restricted area as well as the settling basins should be performed.

Union Carbide (UCAR) submitted a survey/sampling plan in 11/11/94. Region II reviewed the plan and sent comments back to UCAR on 1/12/95. UCAR expects to submit a revised sample plan in 4/95.

UCAR submitted their revised sampling plan in a letter dated April 20, 1995. Region II personnel reviewed the plan and prepared a response which included comments regarding some changes which must be made to the plan before it could be approved. The Region II letter to UCAR was forwarded to the State of Tennessee for their review and comment on May 31, 1995. Their comments were forwarded to Region II on June 18, 1995, and are under review. Region II will send a letter to UCAR with comments regarding the revised sampling plan in July, 1995.



UNITED STATES
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REGION II
101 MARIETTA STREET, N.W., SUITE 2900
ATLANTA, GEORGIA 30323-0199

REGION II TERMINATED SITES LIST

SITE STATUS REPORT

MAY 13, 1996

MAY 13, 1996

Union Carbide Corporation
Lawrenceburg, TN

License No. SNM-724
Docket No. 070-00784

Assessment

Region II's comments to the UCAR sampling plan were forwarded to UCAR in a letter dated August 3, 1995. UCAR's response to Region II's comments was received on October 26, 1995. Region II is reviewing this response and expects to complete the review by November 3, 1995.

UCAR response to comments reviewed and RII approved plan 11/95. Licensee contacted on February 5, 1996, for report on current status. Licensee has completed contract for survey performed in accordance with decommissioning plan. Survey is tentatively scheduled to begin in the second calendar quarter of 1996.

UCAR began the facility survey in April, 1996. During the week of April 22-26, 1996, Region II staff observed the sampling of the sediment and soil from the bottom of the two settling ponds and obtained split samples from some of the sampling locations for analysis by ORISE. UCAR expects to complete the survey in June, 1996. Region II personnel will conduct inspections of the decommissioning effort and perform some confirmatory surveys prior to completion of the survey.



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REGION II TERMINATED SITES LIST
SITE STATUS REPORT