

July 9, 1999

MEMORANDUM TO: John T. Greeves, Director  
 Division of Waste Management  
 Office of Nuclear Material Safety and Safeguards

FROM: Douglas M. Collins, Director original signed by  
 Division of Nuclear Materials Safety C. Hosey for:

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

The quarterly status reports for Region II sites contained on the ORNL list of formerly licensed sites which were identified as potentially contaminated are contained in Attachments 1 through 4. The status reports for 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 which Region II has reviewed and remain open are listed in Attachment 2. Each assessment paragraph in Attachments 1 and 2 reflects the quarterly status at the time of the evaluation. 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. Please note that the most current information in the attachments is in **bold**.

If you have any questions regarding these reports or our evaluations, please contact Mr. Bryan A. Parker of my staff at (404) 562-4728.

- Attachments: (1) Reports for sites >300 (remain open)  
 (2) Reports for sites >5<300 (remain open)  
 (3) Reports for sites (recommend closure)  
 (4) Quarterly Information Status Report  
 (5) Tabular summary for all Region II sites

OFFICE	RII:DNMS	RII:DNMS	RII:DNMS						
SIGNATURE	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>						
NAME	BParker	TDecker	CHosey						
DATE	6/30/99	6/30/99	6/30/99	6/ /99	6/ /99	6/ /99	6/ /99	6/ /99	6/ /99
COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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DOCUMENT NAME: G:\DNMS\DECOMM\06-99ts.wpd

STATUS REPORTS FOR SITES WITH ORNL SCORE >300

(Remain In Open Status)

1. SNM-00724 Union Carbide Corporation
2. 45-02808-02 Atlantic Research Corporation
3. 08-01393-02 Naval Research Laboratory

REGION II TERMINATED SITES LIST  
SITE STATUS REPORT

June 30, 1999

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: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 15,456

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.

UCAR

### Background (cont'd)

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 on November 11, 1994. Region II reviewed the plan and sent comments back to UCAR on January 12, 1995. UCAR expects to submit a revised sample plan in April 1995.

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.

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

Assessment (cont'd)

UCAR's response to comments was reviewed and RII approved the plan in November 1995. The licensee was contacted on February 5, 1996, for a report on current status. The licensee has completed contracting for surveys to be performed in accordance with the decommissioning plan. A 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.

A Region II inspector conducted an inspection in June, 1996, at the UCAR facility while the UCAR survey contractor obtained core soil samples around the facility and performed surveys of the upper walls and ceiling in the High Bay end of Building 10. UCAR now expects to complete its survey by the end of August, 1996, and hopes to submit a final report by the end of September, 1996.

In August, 1996, ORISE informed RII that two of the soil samples obtained during the June, 1996, inspection exceeded the release criteria. RII informed UCAR of this information. UCAR received its contractor's survey report in September and is reviewing the report prior to submission to NRC. UCAR now expects to submit their report in November, 1996.

UCAR's corporate legal and environmental staff did not complete their review of the survey contractor's report until after December, 1996. UCAR has returned it to their contractor for publication in final form. UCAR expects to receive this final report in late March or early April, 1997, and will forward the report to RII at that time.

On June 20, 1997, UCAR indicated that their survey contractor was still revising the report before publication. UCAR has requested changes before publication because the report did not include proposals for remediation. A meeting between UCAR and the contractor is tentatively scheduled for July 1997, with publication of the final report by the end of the third quarter 1997 (September 30, 1997). UCAR will forward the final report to Region II upon completion.

During the third quarter 1997, due to downsizing/cutbacks with UCAR's contractor, UCAR hired a new contractor to complete its decommissioning project. Beginning October 15, 1997, the new contractor is expected to take the data already collected by the former contractor (a characterization study) and begin developing proposals for remediation (a decommissioning plan). The revised schedule under the new contractor calls for the report, including the characterization study and decommissioning plan to be forwarded to Region II by December 17, 1997.

Assessment (cont'd)

On January 16, 1998, Region II attended a meeting (requested by UCAR) with UCAR and its new decommissioning contractor at the UCAR facility in Lawrenceburg, Tennessee, to present UCAR's intentions regarding decontamination and decommissioning (D&D), and discuss the process and options. In attendance were representatives of UCAR, NRC Region II, State of Tennessee Division of Radiological Health, and Nuclear Fuel Services (NFS). NFS representatives presented their findings and recommendations after reviewing previously conducted site characterization surveys by a former UCAR contractor. A tour of the facility was also conducted to familiarize all parties involved with the site. Finally, discussions were held regarding licensing, inspection, plan review and approval, and the D&D process in general. NFS is in the process of developing a decommissioning plan for UCAR based on the new dose-based release criteria. At the meeting, UCAR and NFS indicated that they planned to seek unrestricted release based on a dose of 100 millirem per year. UCAR requested the NRC's position on this in writing. On April 20, 1998, Region II sent a letter to UCAR indicating that their 100 millirem unrestricted release proposal was not acceptable. According to a UCAR representative, the Region II April 20 letter will be evaluated and a response provided.

In June 1998, UCAR indicated in telephone discussions that they had informed their contractor (NFS) to draft the decommissioning plan to address the 25 millirem per year unrestricted release criteria. This was confirmed by UCAR in their letter dated July 24, 1998. On August 19, 1998, UCAR submitted a decommissioning plan, including previous site characterization information, to Region II for review and approval. Region II is currently reviewing the submittal and plans to submit to DWM for review under a TAR by October 30, 1998.

On November 6, 1998, a TAR was submitted requesting DWM to perform a concurrent review of the UCAR proposed DP. In addition, in late 1998, OSP prepared a Commission paper explaining the rationale behind the NRC maintaining jurisdiction over the UCAR site, and not transferring the site to the State of Tennessee; however, NMSS did not concur on the paper. In January 11, 1999, NMSS, DWM and OSP were re-evaluating the situation to determine the most appropriate action to recommend to the Commission regarding jurisdiction over the site. The TAR was essentially "on hold" during this re-evaluation. Full review of the DP cannot be completed until the jurisdiction issue is resolved. As of February 4, 1999, OSP was preparing a Commission Paper recommending that the site be turned over to the State of Tennessee.

**In late February 1999, NMSS and OSP decided that a Commission ruling was unnecessary, and therefore, UCAR should proceed with the clean-up with NRC as the lead agency over the decommissioning. In April 1999, it was determined that a EA was needed as part of the review for the DP, so DWM began preparing one. Also, in April-May 1999, the DP was reviewed by DWM and Region II, and found to be deficient. As of June 30, 1999, the completed EA was being reviewed by the NMSS EIS review team. Upon receipt of notification/comments from DWM, Region II will prepare a deficiency letter for UCAR to address the issues found during the DP review.**

REGION II TERMINATED SITES LIST  
SITE STATUS REPORT

June 30, 1999

Docket No. 030-06546

License No. 45-02808-02

Licensee Name: Atlantic Research Corporation

Site Name: Atlantic Research Corporation

Site Address: 5390 Cherokee Avenue  
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City: Alexandria State: VA Zip: 22314

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 6283

Background

The license was issued on April 13, 1961, authorizing use of any byproduct material with atomic numbers 3-83 in both sealed and unsealed forms. The principal authorized place of use was at the Cherokee Avenue address noted above. This facility was the main area of research and development which included manufacturing, testing and distribution. A primary activity was the manufacture of sealed sources, including Sr-90 eye applicators.

A secondary location of use was at the Pine Ridge Plant in Gainesville, VA, located on a 588 acre site 35 miles west of Alexandria, VA, two miles south of U.S. Highway 29/211. This site was used for tracer studies in the early 1960s, with all wastes returned to the Cherokee Avenue facility. Prior to 1963, there were apparently some 55-gallon drums containing a total of less than 10 millicuries of Co-60 buried at the site.

License records indicated that all materials were removed from the premises in 1977, at which point the licensee requested termination of the license. The NRC provided guidance regarding the decommissioning of the facilities, and surveys by both the licensee and NRC were conducted in 1978. NRC released the facilities and terminated the license on February 8, 1979.

Background (cont'd)

In the 1980-81 timeframe, the Cherokee Avenue site was found to still be contaminated (the records are unclear as to how this was discovered), and the licensee initiated cleanup efforts in 1981. Cleanup ceased in 1982 due to excessive cost, and the records have little information regarding what happened with the site after that point. Also, surveys were performed in 1981 at the Pine Ridge Plant and elevated readings were noted in the area where the drums of Co-60 waste were supposedly buried in the early 1960s. The licensee indicated that a subcontractor would be removing the buried drums from the site; however, there is no documentation on the removal of the drums in the records.

In the 1994 timeframe, the NRC reopened the Atlantic Research matter (the records are unclear as to why this occurred) and it was noted that the Cherokee Avenue site was still contaminated. A new NRC license (License No. 45-02808-08, Docket No. 030-33680) was issued on October 31, 1994, for any byproduct material with atomic numbers 3-83 up to one curie total with an authorized use of "possession and use related to characterization, decontamination and decommissioning activities." The licensee conducted further cleanup and surveys, and, in 1995, the NRC conducted confirmatory release surveys. On September 26, 1995, the NRC released the Cherokee Avenue site and terminated the -08 license.

Assessment

From the review of the -02 license and records, Oak Ridge made two main recommendations: (1) for the Cherokee Avenue site, a determination should be made whether or not the outdoor areas are suitable for unrestricted release and documentation should be placed in the file; and (2) for the Pine Ridge Plant, former use of materials in the building should be assessed to determine if a closeout survey is required, and a final disposition of the buried Co-60 waste should be ascertained. However, the -02 license and records did not contain any documentation that discussed the -08 license that was issued in 1994. Region II reviewed available information pertaining to the -08 license in the NUDOCS system. It appeared that the decommissioning activities under the -08 license, which were not reviewed by Oak Ridge, adequately closed out the Cherokee Avenue site. The termination amendment to the -08 license, however, does not specifically mention the Pine Ridge Plant site. In mid-September 1998, Region II retrieved the -08 license from NRC Archives for review in order to: (1) verify that the closeout of the Cherokee Avenue site in 1994-95 was conducted adequately; and (2) determine if the -08 license records address the issues related to the Pine Ridge Plant site. Review is ongoing and should be completed by December 31, 1998.

In January 1999, review of the -08 license retrieved from archives revealed that the Cherokee Avenue site was adequately closed out. Records of licensee/contractor surveys and NRC confirmatory surveys were complete. The Oak Ridge assessment particularly questioned if H-3 contamination was assessed within the building. Again, it was verified that the documentation in the -08 license file adequately addressed the potential for H-3 contamination. With regard to the Pine Ridge Plant, review of the -08 license revealed no new information. That license focused

Assessment (cont'd)

only on the Cherokee Avenue site. Another full review of the -02 files only confirmed the Oak Ridge findings that, (1) burials were known to have occurred (in 1963) and the licensee committed to removing and properly disposing of the buried material (in 1981); however, no documentation of the final outcome was found; and (2) no evidence of building closeout surveys at the Pine Ridge Plant were in the files. The inspector contacted Mr. John B. Davis, CHP (currently of General Health Physics, Lorton, Va., NRC License No. 45-21037-01), who, in 1980-81 timeframe, was a consultant for the licensee. Mr. Davis recalled that in the summer of 1981, the buried waste was removed from the site and properly disposed. Mr. Davis witnessed the removal operations as he oversaw much of the project. He also recalled that two NRC inspectors were present during the removal operations, but could not recall their names. Mr. Davis indicated that he did not recall any concerns or issues following the waste removal, and thought that the NRC was satisfied with the results. Mr. Davis did not have any records to confirm this. Mr. Davis was also asked about the Pine Ridge Plant building, but he indicated that he had no knowledge as to the radiological condition of the building as he was only involved in the burial issue. The inspector also contacted Mr. Tim Holden in the Atlantic Research Corp. Environmental Department, who was the project manager for the Cherokee Avenue cleanup in 1995, to see if he had any information regarding the Pine Ridge Plant. Mr. Holden had no first-hand knowledge to share but indicated that he would review some of the company's archived records and see if he could find any evidence regarding building material usage and/or closeout surveys, and records of the final disposition of the buried waste that was apparently removed. This information, if any, should be provided by February 28, 1999.

**In early 1999, Mr. Holden contacted Region II and indicated that a number of old records had been retrieved from their archives; however, due to higher priority work, he had not been able to fully review the records. As of June 11, 1999, Mr. Holden indicated once again that the review was not complete, but would complete the review as time allowed. Mr. Holden hoped to complete the review by July 31, 1999.**

REGION II TERMINATED SITES LIST  
SITE STATUS REPORT

June 30, 1999

Docket No. 030-03925

License No. 08-01393-02

Licensee Name: Department of the Navy

Site Name: U. S. Naval Research Laboratory

Site Address: 4555 Overlook Avenue

City: Washington, DC State:            Zip: 20375

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 3352

Background

The license was issued on January 8, 1957, and authorized any form of byproduct material with atomic numbers 3-83 for various research and development activities. The two authorized places of use included the main lab at 4555 Overlook Avenue, Washington, DC, and the Waldorf Annex Facility on State Rte. 228, Southern Prince George's County, Maryland.

At the Waldorf Annex site, the licensee used H-3 targets, a 6-curie Cs-137 source and various small calibration sources in an underground bunker housing a Kaman Neutron Generator. In September-October 1981, the licensee conducted a cleanup and decommissioning of the bunker. The NRC conducted a closeout survey of the facility on August 23, 1982, and found no residual contamination (fixed or removable).

At the Overlook Avenue site, Buildings 89 and 100 were used in the 1957-1986 timeframe. Building 89 was used for metallurgical testing and laundering of contaminated clothing. Building 100 was an outside area surrounding Building 89 in which 41 10-foot steel storage tubes were buried within a concrete slab for radioactive material storage. In July-October 1985, the licensee decommissioned both areas. In January 1986, the NRC conducted a closeout survey of the areas, including a buried tank used for collecting laundry wastewater. Some contamination was identified which was remediated by the licensee. Final surveys showed no residual contamination (fixed or removable) in the building or surrounding soil.

Background (cont'd)

In November 1987, the remainder of the facilities at the Overlook Avenue site were transferred to Navy Permit No. 08-00173-E1NP under the Navy Master Material License (NMML) (License No. 45-23645-01NA), at which time License No. 08-01393-02 was terminated as part of the overall transfer of Navy licenses to Navy permits under the NMML.

Assessment

From its review, Oak Ridge determined that, in general, the Overlook Avenue site did not need further review since it was transferred to a Navy permit under the NMML. However, it did recommend that the closeout survey conducted by NRC for Buildings 89 and 100 on that site be reviewed to ensure that the current guidelines have been met. In addition, it recommended that the Waldorf Annex site be given a cursory review, to verify that the licensee's and NRC's closeout surveys were adequate for release. Region II plans to review these surveys to verify that the decommissioning efforts were adequate. Also, the file contains information regarding wastes apparently buried in the 1950s or 1960s at three locations within the same general area on the Overlook Avenue site. NRC records from the 1986 timeframe reference the burials, but no other information was found that provided closure of the issue. Region II plans to discuss this issue with the Navy by November 30, 1998. After discussions with the Navy, Region II will attempt to resolve the issue by December 31, 1998.

In January 1999, Region II reviewed the closeout and confirmatory surveys for Buildings 89/100 and the Waldorf Annex site. The review revealed no concerns with the Navy or NRC surveys conducted. All appeared adequate to allow unrestricted use of all of the areas involved. Regarding the burial issue, Region II discussed the issue with Navy personnel (RASO) in January 1999. Although the Navy was aware of the issue, they had no additional information to provide. Bill Morris of RASO indicated that he would research the burial question and attempt to answer it. This should be accomplished by February 28, 1999. If burials in fact occurred, resolution of those issues will be based on specific guidance, when issued by DWM, regarding assessment of former burials in light of the new decommissioning rule.

**On June 23, 1999, Region II contacted RASO and was informed that the Navy had completed its review of the issue as part of the review of all sites transferred to the Navy in February 1999. RASO had prepared a draft report which was going through the Navy concurrence chain. Upon receipt of the approved report from the Navy, Region II will review the report.**

STATUS REPORTS FOR SITES REVIEWED WITH SCORES >5<300

(REMAIN IN OPEN STATUS)

1. SUB-00081 Homer Laughlin China Co.
2. STB-00058 Du Pont
3. C-04327/SUC-00628 Fostoria Glass Company
4. 09-01708-01 Orlando Research, Inc.\*\*
5. 10-00512-01 U.S. Public Health Service (HHS)\*\*\*
6. 10-00512-04 U.S. Public Health Service (HHS)\*\*\*\*
7. 52-13137-01 Department of HEW\*
8. 52-15968-01 TII Industries, Inc.\*
9. 41-08165-09 Tennessee Valley Authority\*
10. 41-08165-17 Tennessee Valley Authority\*
11. SNM-01476 Tennessee Valley Authority\*
12. 45-13733-01 Meloy Labs, Inc.\*
13. 45-17819-01 U.S. Army (535th Engr Det.)\*
14. C-03523 National Advisory Committee for Aeronautics\*
15. 47-01163-20 West Virginia University\*
16. C-04576 Hercules Powder Co.\*

\* = Initial review indicated low priority and did not warrant development of a site status report.

\*\* = Transferred to State of Florida - awaiting additional information to close.

\*\*\*= State of Georgia is reviewing the matter in conjunction with CDC.

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**June 30, 1999**

Docket No. 040-01957

License No. SUB-00081

Licensee Name: Homer Laughlin China Company

Site Name: Homer Laughlin China Company

Site Address: \_\_\_\_\_

City: Newell State: WV Zip: 26050-1299

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

**Status Summary:**

ORNL Final Score: 115

Background

In February, 1959, the Homer Laughlin China Company was issued Source Material License No. C-4475. This license authorized possession of 100,000 pounds of source material for use in manufacturing glazed ceramic tableware (glaze to contain not more than 20% uranium).

In February, 1961, this license was renewed and the license number was changed to SUB-00081.

Records indicate that licensed activities were performed in Plant No. 4 and materials were stored in a vault adjacent to the dispensary at Plant No. 8. Records also indicate that the rinse water from washing equipment used to transport uranium glaze entered the city sewer system and in some cases was washed into a storm drain that emptied directly into the Ohio River. Inspection records indicate that these effluents were estimated to be approximately 40% of the regulatory limits.

In a letter dated February 28, 1972 Homer Laughlin China (HLC) requested termination of their license and stated that all remaining licensed materials had been returned to their supplier. On March 29, 1972, the AEC terminated the license.

### Background (cont'd)

In August, 1994, the former licensee discovered that it possessed approximately 500 pounds of uranium oxide ( $U_3O_8$ ). Subsequent to this discovery, the licensee hired a contractor to survey areas where licensed materials were used and stored. Several areas of significant contamination were discovered during this characterization survey. HLC sent the results of this survey to Region II on September 28, 1994.

On November 4, 1994, Region II issued a Confirmatory Action Letter (CAL) to HLC to ensure that the uranium oxide was properly stored and secured and that adequate control measures were implemented to protect personnel from the contamination discovered in the facility. On November 17, 1994, a Region II inspector visited the site to determine if HLC had implemented adequate protective measures. HLC had secured the material and the contamination areas as required by the CAL.

On January 5, 1995, HLC submitted their decommissioning plan for the facility. On January 9, 1995, Region II forwarded comments on the plan to HLC. HLC submitted a revised plan on January 10 and Region II approved the plan on January 12, 1995.

HLC and its decommissioning contractor began decommissioning efforts after approval of the plan. The contractor has completed the decontamination of the majority of the facility and is currently working to complete decontamination of some equipment. HLC and its contractor are having some difficulty in finding an acceptable means to dispose of the waste and bulk material.

### Assessment

Region II will continue to monitor HLC's progress in decommissioning this facility. A confirmatory survey will be scheduled upon completion of HLC's decommissioning effort and review of their final survey report.

HLC's efforts to decontaminate/decommission their facility continues. Most of the building surfaces have been decontaminated, but some contaminated equipment remains to be removed and either decontaminated or disposed of as radioactive waste. Region II has visited the site on two occasions to survey floor areas in some currently operational areas which HLC needed to have released for operational safety reasons. Based upon the Region II surveys, these floor surfaces were determined to not meet the free release criteria and were not approved for release for unrestricted use. HLC and their contractor, Applied Health Physics, are evaluating the conditions which resulted in these areas not meeting the release criteria. Region II will continue to monitor HLC's decommissioning effort.

Assessment (cont'd)

In a letter dated August 1, 1995, HLC stated that they had completed their decontamination and decommissioning efforts, but had some areas which could not be remediated to the current criteria for release for unrestricted use. HLC enclosed a risk analysis report with the letter with a request that the NRC review the report for the purpose of approving a variance on release of specified equipment and areas from the current release criteria. Region II has completed a preliminary review of the documents submitted by HLC and requested some additional information before a final review is completed. Once this additional information is received, the request will be forwarded to NMSS via a TAR for review and approval.

The HLC request was forwarded for review in a TAR on November 1, 1995. DLWM personnel expect to reply to the TAR by February 16, 1996. From a preliminary review, DLWM expects to have additional questions for HLC to answer before a final decision is rendered.

Region II personnel performed a survey of some floor areas within the HLC facility in December, 1995. The licensee had requested a release survey of some floor areas in a busy area of the facility so that the floors could be repaired. The licensee was concerned about personnel injuring themselves when trying to walk over these floor areas. As a result of this survey, these areas were declared suitable for release for unrestricted use and the licensee initiated repairs to the floors.

NMSS responded to the TAR in a letter dated March 22, 1996. In the TAR response, NMSS requested that HLC respond to fifteen comments before a decision is made regarding the approval of alternate unrestricted use limits for surface contamination. Region II forwarded the comments to HLC in a letter dated April 5, 1996. In a phone call on May 13, 1996, the HLC contractor reported that he is working on a response to the comments and should complete the response by June, 1996.

HLC was contacted on August 6, 1996, to determine the status on its response to the April 5, 1996 letter. Due to financial concerns, HLC has not completed their response. RII staff have scheduled an inspection for August 13, to review the status of the facility and the decommissioning effort.

RII staff conducted an inspection at HLC on August 13, 1996. HLC had not performed any further decommissioning pending resolution of its request for alternate release criteria. HLC intends to respond to the RII April letter regarding this request by November, 1996.

In December, 1996, HLC reported that they had not received a response from their health physics contractor who HLC hired to perform the decommissioning and to respond to the April 5, 1996, letter from RII. HLC's contractor has experienced financial and personnel problems which have delayed the response. In a January, 1997 letter, HLC's contractor, Applied Health Physics, informed RII that they were now working to complete the response. RII staff contacted HLC's contractor and was informed that a response would be forwarded by March 10, 1997.

Assessment (cont'd)

As of June 20, 1997, HLC had not received response from contractor. HLC contacted the contractor, Applied HP, who in turn contacted Region II and informed us that a meeting was scheduled for June 27, 1997, to complete the response. Applied HP will forward the completed response to HLC for review, who will then forward it to Region II.

As of October 7, 1997, Applied HP had not completed the response for HLC due to some software problems. Applied HP indicated that they expected the response to be completed soon, at which time they would forward it to HLC which would then forward it to Region II.

In early February 1998, Region II received a response from HLC dated January 28, 1998, indicating that they were providing the balance of the 15 items of information initially requested by DWM in Region II's April 5, 1996, letter. Response to items 1, 2, 3 and 5 were submitted by HLC letter dated March 12, 1997. The January 28, 1998, response for the remaining 15 items is currently being reviewed by Region II and a TAR is being prepared to forward the response to DWM for its review. This action will be completed by October 30, 1998.

On October 2, 1998, a TAR was submitted to DWM transmitting the response from HLC and requesting a re-evaluation of the HLC issue as a whole in light of the new decommissioning rule. As of January 11, 1999, the TAR was assigned to a DWM staff member; however, action was not complete on the TAR. The major issue concerns the HLC equipment which is contaminated inside in unoccupiable spaces, and HQ is still working on specific guidance regarding the release of equipment. Date of resolution is unknown, but an inspection to verify the current status of HLC and its material is scheduled for the February 1999 timeframe.

**On February 25, 1999, Region II was notified that the HLC TAR issue had been chosen by the SRP Dose Modeling Group in NMSS to be a "test case" in the development of the SRP. On March 1, 1999, an inspection/meeting was conducted at the HLC facility in Newell, WV. The inspection revealed no concerns regarding the status of the facility and the remaining low-level contaminated waste being stored onsite until the issue is resolved. In the meeting, Region II discussed the status of the TAR and the informed HLC of the case being chosen as a test case for the SRP development. In March 1999, NRC published draft NUREG-1640, "Radiological Assessments for Clearance of Equipment and Materials from Nuclear Facilities," which will probably be used by the SRP group during their review of the HLC case. As of June 22, 1999, Region II had received no feedback regarding the status of the case.**

REGION II TERMINATED SITES LIST  
SITE STATUS REPORT

June 30, 1999

Docket No. 040-06213

License No. STB-00058

Licensee Name: E.I. DuPont de Nemours and Co., Inc.

Site Name: Belle Works

Site Address: 901 West Dupont Avenue

City: Belle State: WV Zip: 25015

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 37

Background

License No. STB-00058 was issued on January 30, 1961 for the possession of 1,000 pounds of thorium for use in dispersions of thorium oxides in metal. The license was amended in January, 1962, and the possession limit was changed to 500 pounds.

In its December, 1960 application, the licensee described the source material as a thorium salt, probably thorium nitrate, in a crystal form containing 33 to 48 percent thorium by weight. The facility where the source material would be used was described as a restricted area of dimensions 40 feet by 100 feet with a steel frame and sheet metal building approximately 15 feet by 50 feet. Processing equipment contained in the building included tanks for dissolving, mixing and reacting the thorium salts with metal salts, a plate and frame filter press, a combination drying and calcining oven, and a controlled atmosphere furnace. A sink and other laboratory type equipment was also employed. A hood was also used when source material was handled manually and for exhausting the calcining furnace. The exhaust from the hood was 15 feet above ground and the licensee projected that 18 grams of thorium would be exhausted each day of operations. After handling of the dry source material in the hood, it was mixed with water to limit airborne contamination. The licensee stated he would use air samplers to monitor airborne material and conduct radiation surveys with a portable survey instrument and obtain wipes in work areas to monitor removable contamination. To illustrate its experience with handling hazardous materials, the licensee stated that it had many years of experience in producing catalyts containing chromium compounds which are strongly toxic.

### Background (cont'd)

The methods of disposal of source material included burial and discharge to plant sewage and water effluent stream. As described in the license application, all solid or semisolid thorium-containing materials would be accumulated, stored and periodically buried. The burial would be in the plant dump which was located remotely from the plant and was separated from inhabited areas by a nest of mountains. All solutions containing thorium would be treated chemically to precipitate as much of the thorium as possible before discarding them. The restricted area was located adjacent to one of the plant's water outfalls which had a minimum flow rate of 20,000 gallons per minute. The resulting concentration of thorium was stated to be below detectable limits and several orders of magnitude below those specified in AEC regulations (Part 20).

An AEC inspector found no items of noncompliance during an inspection conducted on April 23, 1963. No other details of the inspection were in the retired docket file.

The license expired on January 31, 1965. In a memo dated June 6, 1965, an AEC employee stated that he had contacted the licensee on May 27, 1965, and was informed that the licensee had not procured or used thorium since the last inspection (date of inspection not identified). The licensee had 0.43 pounds of thorium which it possessed under a general license since the specific license expired. The retired docket file does not contain any information on the final disposition of the material or surveys performed by either the licensee or the AEC after the license expired and was terminated.

### Assessment

RII personnel performed an inspection at the Du Pont facility on August 12, 1996 (Inspection Report No. STB-00058/96-01). The inspector found that Building 202, identified in the former license as the facility where licensed activities were conducted, no longer existed. The building had been demolished several years prior to this inspection, and a much larger facility, Building 291, had been erected at the site. Based upon his observations of the site and discussions with licensee personnel, the inspector determined that no original structure remained from Building 202, and that the construction of Building 291 had apparently included the entire removal of Building 202, and excavation of the area where Building 202 had existed to allow construction of the foundation for Building 291.

The inspector also determined that, as stated in documents contained in the terminated license docket file, the licensee had buried thorium contaminated waste at a site across from the main facility. A licensee document dated October 4, 1961, indicated only three drums of contaminated waste (two 55 gallon and one 30 gallon) were buried at the site on September 29, 1961. This document also stated that the material was buried under six feet of earth and that the radiation levels measured on the surface of the drums prior to burial ranged from 0.5 to 0.7 millirem per hour. The licensee's current radiation safety staff were aware of the site. The inspector visited the burial site and observed that the licensee controlled access to this area and that the area was posted with a sign indicating that radioactive material was buried at the site. The licensee's staff stated that as much as sixteen more feet of earth cover had been added to the area since the material was first buried. The licensee periodically inspected the site, but did

Assessment (cont'd)

not perform any radiological surveys in the area or analyze the groundwater obtained from monitoring wells in the area for radioactive material.

It appears that no further investigation is required regarding the facility where licensed material was used under this former license since that facility has been demolished. However, the site will remain in an "open" status until the Draft Branch Technical Position on Screening Methodology for Assessing Prior Land Burials of Radioactive Waste Authorized Under Former 10 CFR 20.304 and 20.302 is published in final form. At that time the licensee will be required to apply the screening methodology to the burial site and take action as warranted by this document.

The final copy of the BTP is not expected to be published until April or May, 1997. RII will forward a copy of the draft BTP and request that the licensee try to apply the screening methodology to their burial site. The licensee's records of material buried at the site do not specify the amount (mass or activity) of thorium buried. Therefore, the licensee would have to estimate the amount of thorium contained in the contaminated materials buried in the three drums as described in Step 1 of the screening methodology. It is doubtful the licensee will pass Step 1 or 2 of the screening methodology. If the licensee does not pass these two steps, RII will request that the licensee perform a site specific dose assessment based on a modeling protocol such as RESRAD and submit the results of this assessment for review by RII and DWM.

On June 24, 1997, the licensee indicated that after the Region II onsite visit in September 1996, sampling in and around the burial site was done in October 1996 by DuPont Environmental Remediation Services (DERS). The licensee received the results in November 1996 (all were negative), and will now forward the results to Region II for review. The licensee was informed that the BTP will soon be published and, once received, will need to be applied to their situation for screening purposes.

Region II received the results and, upon review, noted no concerns. As of October 8, 1997, the licensee had not applied the BTP to their burial situation. Region II informed the licensee that the BTP had not yet been finalized, but that a submittal could be made under the draft BTP for review and evaluation.

As of April 23, 1998, the draft BTP had not been finalized, and the licensee had not made any other submittals. Region II is awaiting word from DWM regarding the status of the draft BTP.

As of September 24, 1998, the draft BTP was no longer scheduled to be finalized, and the licensee had not made any submittals. Region II is awaiting word from DWM regarding other guidance pertaining to prior burials in light of the new decommissioning rule.

As of February 4, 1999, the draft BTP was no longer scheduled to be finalized, and the licensee had not made any submittals. Region II is awaiting word from DWM regarding other guidance pertaining to prior burials in light of the new decommissioning rule.

DuPont

Assessment (cont'd)

**On June 22, 1999, Region II contacted DuPont and noted that the status remained unchanged. Region II informed DuPont that the BTP would not be finalized and that Region II would check with DWM on how best to proceed. DuPont indicated that they would be interested in a plan of action in order to proceed.**

REGION II TERMINATED SITES LIST  
SITE STATUS REPORT

June 30, 1999

Docket No. 040-03366

License No. C-04327  
SUC-00628

Licensee Name: Fostoria Glass Company

Site Name: \_\_\_\_\_

Site Address: Corner of First Street and Fostoria Avenue

City: Moundsville State: WV Zip: 26041

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 15

Background

License No. C-04327 was issued on October 2, 1958, for the possession of 850 pounds of uranium (depleted) in uranium compounds for use as a coloring agent in glass products (tableware and artware). Amendment No. 1 to this license was issued on August 25, 1959 and authorized the possession of 1700 pounds of uranium in uranium compounds for use as a coloring agent in the manufacture of ornamental glassware containing not more than 10% uranium.

In a letter dated October 18, 1960, the licensee stated that it had discontinued the use of uranium compounds in July, 1960, and that it currently possessed 328 pounds of depleted uranium. The licensee further stated that it was not sure if it would use this material in the future, but wanted to retain the license in the event it may need it. The possession limit was reduced to 328 pounds in an amendment dated October 20, 1960.

License No. C-04327 expired on October 31, 1961, while the licensee still possessed source material. The licensee applied for another license, requesting authorization for possession only, and was issued License No. SUC-00628 on July 19, 1962. This license authorized the possession of 328 pounds of uranium for storage only. This storage only license was renewed in July, 1965 and its expiration was extended to July 31, 1969, in a license issued on July 22, 1968.

Background (cont'd)

The licensee requested termination of its license in a letter dated June 19, 1969. In this letter, the licensee stated that it had disposed of all material (328 pounds) by burial as provided in 10 CFR 20.304.

In its original license application, the licensee described the manufacturing process as including weighing out the licensed material in appropriate batch sizes along with other glass components in a well ventilated, hooded area, placing this material in a mixer, then a batch wagon for transfer to the site where it would be placed in a glass pot and melted into glass. The glass was then drawn by hand and formed into glassware. The licensee stated that the glassware would contain from 0.25 to 2.0 percent depleted uranium oxide depending upon the type of color which was produced. All waste product would be remelted for further use or would be buried at the dump. The licensee also stated that it had experience with normal uranium products before 1942 and based upon this experience, it expected little uranium loss in any of its operations.

On August 27, 1959, an AEC inspector conducted an inspection of the licensee's operations. He noted that the weighing room was located in the west end of the plant building and that the Ransome Dry mixer was located in the basement almost directly below the weighing room. The inspector also noted that the licensee was performing radiation surveys with a CDV-700 survey meter borrowed from the Moundville High School, and that the records of these surveys showed that no external radiation in excess of 1 mR/hr existed in any of the use and storage areas. The licensee had received 900 pounds of licensed material since October, 1958 and had 225 pounds of licensed material on hand during the inspection. A second inspection was performed in November, 1962, and the inspector noted that no item of noncompliance was found.

The retired docket file contains no information describing a close-out survey by either the licensee or AEC at the time of license termination.

Assessment

Fostoria Glass Company (FGC) was purchased by the Lancaster Colony Corporation in 1983, and production at the facility ceased in 1986. The facility was closed shortly after production ceased and an environmental remediation survey of the facility was completed in 1995. Personnel involved in this survey were apparently unaware of the use of radioactive materials at this site and did not perform any radiological surveys. Personnel performing this survey reported that they did not find any evidence of a burial site on the premises.

On August 14, 1996, a RII inspector performed a scoping survey at the site. The inspector found that the entire facility, including the building designated as the Batch Plant, where depleted uranium was used and stored, was difficult to survey because of the current facility conditions. However, the inspector did identify areas of fixed contamination in and around the Weigh Room on the second floor, in the southwest corner of the Batch Plant, that exceeded the NRC criteria for release of the facility for unrestricted use. The inspector concluded that a more

Assessment (cont'd)

comprehensive survey of the facility would be required to properly characterize the site and determine if any other areas within the facility were contaminated above the release criteria.

The inspector attempted to determine the location of the "dump" referenced in documents contained in the retired docket file where the former licensee disposed of 328 pounds of depleted uranium. The inspector did not find any physical evidence of a dump at the facility site. The inspector obtained a sample from each of the three ground water monitoring wells at the facility. A preliminary analysis of the samples indicated that the types and amount of radioactive material present in the ground water are from naturally occurring materials typically present in ground water.

In discussions with employees of the West Virginia Division of Environmental Protection, the inspector determined that it was possible that the "dump" referenced in the retired docket file was the Moundsville municipal dump known as the Angel Flats Dump. The inspector visited the Angel Flats site and found evidence that FGC had disposed of waste glass at the site, but could not determine if the depleted uranium had been buried at the site.

The inspectors findings were forwarded to Lancaster Colony Corporation in Inspection Report No. SUC-00628/96-01 on October 10, 1996. The cover letter to this report included a request that Lancaster Colony notify RII of the actions it will take to decontaminate and decommission the former FGC site so that it meets the release criteria. In discussions with a Lancaster Colony representative, the inspector was informed that Lancaster Colony may not accept responsibility for the site and that its ownership of the site is questionable. Lancaster Colony will address this issue in their response to the report.

In a letter dated November 8, 1996, Lancaster Colony's legal representatives provided information that supported their position that Lancaster Colony transferred possession of the site to the State of West Virginia. A copy of a Consent Order issued in the Circuit Court of Marshall County, West Virginia on May 10, 1995, was included with the letter. Based on the contents of this order, it appears that West Virginia is solely responsible for the site. RII will meet with representatives of West Virginia to determine if the state representatives agree they are responsible for the site. RII will then proceed to determine what further actions are necessary to clarify the radiological status of the facility.

A TAR was sent to DWM on April 21, 1997, requesting a decision to either (1) hire a contractor to perform more remediation, or (2) accept a dose assessment that no further remediation is required. The TAR due date was June 23, 1997.

The TAR was misplaced/lost in DWM for some period due to technical problems with e-mail, etc. DWM relocated the request and responded to the burial portion of the TAR; however, they did not respond to the indoor portion (fixed contamination). DWM requested additional information from Region II regarding the indoor aspects of the issue. Region II is currently gathering the requested information and will forward it to DWM to enable them to complete their review.

Assessment (cont'd)

Region II is planning to conduct additional surveys to better characterize the nature of the contamination within the old Fostoria building.

In late 1997, Region II informed DWM that the necessary information was in the inspection report, but if necessary, any specific items would be provided as requested. In April 1998, DWM had provided no additional feedback. Region II contacted DWM and discussed the issue. DWM indicated that the TAR had been closed and indicated that another TAR should be prepared. Region II plans to submit another TAR requesting review of the indoor portion of the issue, and providing as much information as possible regarding the input parameters for RESRAD-BUILD specific to the Fostoria site.

In September 1998, Region II discussed the issue with DWM, which recommended that Region II re-review the matter in light of the new decommissioning rule and the draft screening values for building surface contamination levels. After this review, a TAR will be prepared, if required. Region II plans to complete the review by December 31, 1998, and a TAR prepared, if necessary, by January 31, 1999.

In January 1999, Region II re-reviewed the matter and determined (1) that the DWM assessment of the alleged burial of 328 pounds of DU (TAR dated 7/1/97) was still valid in light of the new decommissioning rule since it concluded a maximum dose of 1.5 mrem/year; and (2) that additional characterization of the contamination within the old Fostoria building (by inspection) was not necessary due to the limited nature of the contamination and the dilapidated condition of the facility. To complete an evaluation of the indoor portion of the issue, Region II will discuss the matter with DWM and determine if the matter can be resolved with existing information, or if a TAR is required to request DWM to review the matter. If a TAR is necessary, Region II will prepare it and transmit it to DWM by March 31, 1999.

**On March 26, 1999, Region II contacted the State of West Virginia Radiological Health Program regarding the status of the Fostoria site. The State officials contacted were not aware of any changes in the status of the facility, but referred Region II to the City Manager of Moundsville, WV, for additional information. The City Manager confirmed that there had been no change in status or condition of the facility. In April/May 1999, Region II reviewed the file in its entirety and performed a dose assessment given the current decommissioning guidance. On June 4, 1999, Region II submitted a TAR to DWM requesting a review of the dose assessment for the remaining residual building contamination in the Batch Plant in lieu of current surface contamination guideline limits. The dose assessment provided with the TAR concluded that doses would be well below 25 millirem per year and recommended unrestricted release of the building. As of June 30, 1999, Region II was awaiting response from DWM on the TAR (the TAR due date was July 6, 1999).**

STATUS REPORTS FOR SITES  
RECOMMENDED FOR CLOSURE

(ORNL Score >5<300)

1. 01-00126-13 Army-Redstone Arsenal
2. 45-03499-05 College of William & Mary

(ORNL Sealed Source Score >1)

3. 01-01905-01 AW Williams Inspection Co.
4. 01-03568-01 Caldwell Foundry
5. 01-03568-02 Caldwell Foundry
6. 09-23043-01 TRW Space and Defense Sector
7. SNM-00393 Research Triangle Inst.
8. 52-03569-05 Commonwealth of PR - Civil Defense Warehouse
9. 52-17662-01 Geotec Subsoil Exploration & Materials Lab.
10. SNM-01372 Hospital Pavia
11. SNM-01944 Hospital Pavia
12. 41-08165-15 Tennessee Valley Authority
13. 45-09469-01 Avtex Fibers
14. 45-17132-01 Army
15. GL-00337 Cottrell Electronics
16. SNM-00138 Virginia Tech
17. 34-21191-01 Hunt Wireline Services
18. 47-09638-05 Charleston General Hospital
19. 47-13738-01 Mathiessen & Hegeler Zinc
20. 47-17373-01 State Construction Inc.
21. 47-17428-01 Allied Chemical
22. 47-17517-01 Preston Contractors
23. 47-19164-01 Green Construction Co.
24. 47-21213-01 Acme Construction Co.
25. SNM-00522 Dept. Of Interior
26. 08-00038-54 Naval Electronics Systems Command

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**February 16, 1999**

Docket No. \_\_\_\_\_

License No. 01-00126-13

Licensee Name: Department of the Army

Site Name: Army Rocket and Guided Missile Agency

Site Address: Redstone Arsenal

City: Huntsville State: AL Zip: \_\_\_\_\_

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 14

Background

This was an AEC license issued on November 17, 1959, for possession and use of any byproduct material with atomic nos. 3-83 in the form of irradiated metallic samples with a total possession limit of 150 millicuries. In 1960, the license was amended to authorize one cobalt-60, one ruthenium-103, and one barium-131 sealed source, all one millicurie or less, for storage only. The license expiration date was November 30, 1961. In 1995, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL's main concern was that the final disposition of the material was not verified and/or no NRC confirmatory surveys were conducted. Letter dated October 31, 1961, was a certification from the licensee detailing where and how all of the licensed materials were properly disposed or transferred.

Assessment

Region II reviewed the file and noted that most of the activated materials and sealed sources were very short-lived (44 day half-lives or less); therefore, as ORNL noted as well, any residual material decayed away during or soon after the license period. Region II calculated what would be left of the longest-lived material (cobalt-60 and iron-55 sources) if they were not properly disposed, and found that a maximum of 83 microcuries of cobalt-60 and 0.7 microcuries of iron-55 would exist. As a "worst case," in all likelihood, this would not be considered significant enough to prompt conducting confirmatory surveys now. In addition, there is no evidence to assume that the material was not properly disposed of as described in the October 31, 1961, letter. Therefore, verification of the disposition at this point is not necessary and confirmatory surveys do not appear to be warranted. Based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**March 16, 1999**

Docket No. 030-01100

License No. 45-03499-05

Licensee Name: College of William and Mary

Site Name: Virginia Associated Research Campus

Site Address: 12070 Jefferson Avenue

City: Newport News State: VA Zip:     

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 57

Background

This was an NRC license authorizing possession of any byproduct material with atomic nos. 3-83, tritium, polonium-210, americium-241 and curium-244 in any form, and tritium, polonium-210 and plutonium sealed sources, for use in academic/research and development applications. The license was first issued on April 2, 1968, and expired on June 30, 1990. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure.

ORNL gave the following history and recommendations for followup:

First Site: Virginia Associated Research Campus (VARC), Newport News, Virginia

The licensee apparently possessed and used the authorized materials at this site from issuance date of Amendment No. 6 on November 9, 1978, through August 26, 1985. The licensee's application dated March 27, 1978, indicates that millicurie amounts of carbon-14 and tritium were to be used in Room 41 (diagram was attached to the application). The licensee decommissioned the site in 1985 which was documented in report dated August 26, 1985. All materials were transferred as radioactive waste to RSO, Inc. or transferred to Georgetown University. A final closeout survey found "no area contamination." All smear readings were less than 180 dpm. However, the diagram of the room (Room 67) was not the same as on the application in 1978. Therefore, the licensee may have moved the lab to another room.

The ORNL site evaluation score was 57.3 but the score is higher than it should be because the ORNL evaluation system cannot account for individual loose materials for each separate site. All materials that were authorized are entered into the evaluation

system and apply to all sites equally unless there is other information indicating no possession of a certain material. If the licensee only used millicurie amounts of carbon-14 and tritium, then the hazard would be significantly lower. However, the evaluator must be conservative by entering the amounts authorized on the license given that there is no other information (i.e. inspection reports) regarding the actual isotopes used at this site.

Second Site: Departments of Biology, Physics, and Chemistry, College of William and Mary, Williamsburg, Virginia.

The Williamsburg, Virginia, campus sites do not require further review. Individual licenses were issued to each of the three departments.

Recommendations:

- 1) The Newport News, Virginia, site requires some further review. Verification that only small amounts of carbon-14 and tritium were used would lower the priority for review. Also, the issue of different room numbers (Room 41 versus Room 67) should be resolved to ensure that an area of the facility was not left out of the decommissioning process.
- 2) The Williamsburg, Virginia site does not require further review. All areas were covered under new licenses.

Assessment

Region II reviewed the file and agreed with the ORNL recommendations. Followup began with resolving the room number issue. Region II contacted the former RSO for the license, Richard Keifer, Ph.D., and the former RSO of the VARC site, David Buckle, Ph.D. From the discussions with Drs. Keifer and Buckle, it was revealed that Room 41 was a room of use at the VARC site, but Room 67 was also used. Room 67 was the primary storage and use room, whereas Room 41 was where the experimental animals were housed before, during and after the experiments involving licensed material. Dr. Buckle recalled that only very small amounts of carbon-14, tritium and other short-lived isotopes were used at VARC. Dr. Buckle also recalled the cleanup of both rooms, indicating that they were both surveyed, swiped and washed down thoroughly. The August 26, 1985, survey noted above confirms this for Room 67. Neither Dr. Keifer nor Dr. Buckle had any documentation of Room 41 surveys, and additional searches in the file and the NUDOCS system were fruitless. Surveys of Room 41 cannot be conducted now, even if warranted, because, according to Dr. Buckle, Room 41 no longer exists, as it was torn down when the VARC site was renovated a few years ago. Based on the information provided by Drs. Keifer and Buckle, no further evaluation is necessary regarding the VARC site, and as noted above, the other materials under the license were properly transferred to other licenses granted to the various departments on the College of William and Mary campus. Therefore, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**February 9, 1999**

Docket No. \_\_\_\_\_

License No. 01-01905-01

Licensee Name: A.W. Williams Inspection Co., Inc.

Site Name: \_\_\_\_\_

Site Address: 208 Virginia Street

City: Mobile State: AL Zip: \_\_\_\_\_

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 2.2

Background

This was an AEC license issued on January 29, 1957, authorizing the possession and use of cesium-137 and cobalt-60 sealed sources for "in air" industrial radiography. The expiration date for the license was January 31, 1958. In 1995, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL's concern was the lack of information regarding disposition of material. In May 1998, the file was transferred to the State of Alabama for review/closure in accordance with NRC transmittal SP-97-080. On July 30, 1998, the State notified Region II that it had been unable to find any information related to the license. Region II requested that the file be returned for followup.

Assessment

In January 1999, Region II initiated review of the file returned from the State. A search of NUDOCS revealed no leads. Contact with Maureen Moriarty in NRC HQ indicated that there was an -02 license that may have superseded the -01 license. Region II requested that the -02 file be retrieved from NRC archives. On February 8, 1999, Region II received a file (marked "Folder 1 of 2") for the -02 license. Review of that file revealed that ORNL had conducted further review of the -01 license and had found that it had been superseded by the -02 license. Based on that information, ORNL indicated that additional followup on the -01 license was not warranted. ORNL's review of the -02 license (which was issued on January 16, 1958, for the same materials as the -01 license) found that all sources possessed were accounted for, warranting no further review of the -02 license. It appeared that the -02 license expired in 1966. Based on the information found from these reviews, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**April 2, 1999**

Docket No. None

License No. 01-03568-01

Licensee Name: Caldwell Foundry & Machine Co.

Site Address: 518 N. 14th Street

City: Birmingham State: AL Zip: \_\_\_\_\_

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 2.6

Background

AEC License No. 01-03568-01 was issued on April 23, 1958, authorizing possession and use of a 7.5 curie sealed source of cesium-137 for industrial radiography. The expiration date on the license was April 30, 1959. ORNL's concern was a lack of information regarding the disposition of the source. In 1995, the -01 file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure.

Assessment

Review of the -01 file by Region II indicated that the -01 license was simply superseded by an -02 license. The licensee apparently failed to request a timely renewal of the -01 license in 1959 and it expired. AEC issued the -02 license on June 3, 1959, authorizing the same source and radiography program as the -01 license. ORNL also identified the -02 license as needing additional followup and Region II conducted this followup as well (see the Region II Site Status Report for License No. 01-013568-02). With regard to the -01 file, based on the information found during the review, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**April 2, 1999**

Docket No. None

License No. 01-03568-02

Licensee Name: Caldwell Foundry & Machine Co.

Site Address: 518 N. 14th Street

City: Birmingham State: AL Zip: \_\_\_\_\_

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 2.6

Background

AEC License No. 01-03568-02 was issued on June 3, 1959, authorizing possession and use of a 7.5 curie sealed source of cesium-137 for industrial radiography. The expiration date on the license was September 30, 1962, and superseded the -01 license that expired April 30, 1959. ORNL's concern was a lack of information regarding the disposition of the source. In 1995, the -02 file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure.

Assessment

Review of the -02 file by Region II revealed a note dated October 23, 1962, indicated that all of the -02 file documents were transferred to the -03 license. In an effort to resolve the issue, Region II requested the -03 file from NRC archives. Region II received some -03 documents, but the complete file was not available or not provided for some reason. Review of these documents found that, on October 26, 1962, AEC License No. 01-03568-03 was issued for a source identical to the one authorized in the -02 file. The expiration date of the -03 license could not be determined, but it appeared that the license expired or was terminated sometime between mid-1964 and late 1966. This is based on (1) the -03 license records obtained from archives, which contain July 1964 inspection results as the latest dated record; and (2) the State of Alabama became an Agreement State on October 1, 1966, and the State had no record of this license being transferred to a State license. As noted, the records received from archives on the -03 license did not contain termination/disposition information; however, it appears that the license was properly terminated and the source adequately accounted for because Region II confirmed that ORNL's review of the -03 license (ORNL apparently had the complete file) resulted in a score of zero (0.0). Based on the information found during this review, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**February 12, 1999**

Docket No. 030-20208

License No. 09-23043-01

Licensee Name: TRW Space and Defense Sector

Site Name: TRW Cape Canaveral Field Office

Site Address: Cape Canaveral Air Force Station

Building 49904

City: Cape Canaveral State: FL Zip: 32920

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 17.2

Background

This was an NRC license issued on September 25, 1984, authorizing possession and use of various sealed sources and krypton-85 gas for instrument calibration and testing. Storage of the sources was in Building 49904. The license was terminated on May 10, 1991, concurrently with the issuance of NRC License 04-25144-01, which superseded it due to a change in mailing address. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. Although ORNL recognized that the license was superseded, it was concerned that the terminated license file was not complete in that the disposition of all of the sources authorized over the license period were not accounted for. Specifically, ORNL was concerned with the disposition of the curium-244, americium-241, and krypton-85 sources that were dropped off with Amendment No. 1 of the license on June 8, 1990.

Assessment

Region II contacted cognizant personnel at Cape Canaveral Air Force Station and confirmed that the 09- licensed material was transferred to the 04- license for use in the same place of use (Building 49904). They also indicated that they were not aware of any lost sources during the license period. They provided a copy of the 04- license, which was terminated in 1995 by Region II. ORNL indicated in its assessment that perhaps the application dated September 12, 1989, which was missing from the 09- file, contained disposition information for

the unaccounted-for material. A search of NUDOCS located the application; however, it did not specifically address the disposition of that material. NUDOCS also provided a telephone conversation record dated May 15, 1990, that noted that the licensee had disposed of the krypton-85 and were pursuing disposal of all sources. The licensee then followed up with letter dated May 21, 1990, that submitted a revision to the application deleting the curium-244, americium-241, and krypton-85 sources (see attachments). This indicates that the matter was discussed with Region II licensing personnel and no concerns were noted. The NUDOCS search also provided a final survey report submitted on May 30, 1995, to support a request to terminate License No. 04-25144-01. Review of this survey report revealed that the licensee conducted a thorough survey, with a followup survey conducted by an onsite contractor. Results of the survey showed residual contamination less than approved criteria in place at the time to allow for unrestricted release (see attachments). Although Region II was unable to determine the exact disposition of the sources in question, it appears that they were properly disposed of (most likely transferred to the Air Force or EG&G sometime in the 1985-1990 timeframe). In addition, the final survey report provides strong evidence that no sources remained at Building 49904. Based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**February 18, 1999**

Docket No. \_\_\_\_\_

License No. SNM-00393

Licensee Name: Research Triangle Institute

Site Name: \_\_\_\_\_

Site Address: 505 W. Chapel Hill St.

City: Durham State: NC Zip: \_\_\_\_\_

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 7.3

Background

This was a license issued by the AEC in the 1950s-60s timeframe, authorizing the use of special nuclear materials (sealed sources) for research and development purposes. In 1995, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, while preparing to transfer the file to the State of North Carolina for review/closure in accordance with NRC transmittal SP-97-080, the State provided sufficient information to close out the file without transferring it. The State provided some additional information in February 1999.

Assessment

The information provided by the State in May 1998 and February 1999 verified that this license was superseded by North Carolina license NC 032-131-1 on July 21, 1965, after the State went Agreement on August 1, 1964. According to the State, the license is still active. Region II reviewed the information submitted by the State, and noted no concerns. Based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**March 31, 1999**

Docket No. 030-07481

License No. 52-03569-05

Licensee Name: Commonwealth of Puerto Rico - State Civil Defense Agency

Site Name: \_\_\_\_\_

Site Address: Box 5127-Puerta de Tierra Station

City: San Juan State: PR Zip: 00906

Regional Contact: Bryan A. Parker

Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 5.9

Background

This was an AEC license which authorized the possession and use of one 130 curie cesium-137 source in a Civil Defense calibrator for calibration of instruments. The license was issued on November 22, 1968, and expired on June 30, 1984. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL's concern was the lack of information in the file regarding disposition of the source.

Assessment

Region II followed up and found that the -05 license was superseded by an -06 license issued on January 14, 1985 after the -05 license expired. The same source was authorized on the -06 license. Further review found that the -06 license expired on December 31, 1989, and an -07 license was issued to supersede it on May 4, 1990. Again, the same source was authorized on the -07 license. The -07 license was formally terminated on October 7, 1997, by Amendment No. 4. The -07 license file was reviewed by Region II and found to contain a NRC Form 314, "Certificate of Disposition of Materials," that indicated that the licensee had transferred the cesium-137 source to NRC License No. 08-01297-06 (Federal Emergency Management Agency(FEMA)). Region II personnel verified this with FEMA on October 1, 1997. As of March 31, 1999, the FEMA license was still active. Copies of the -06 and -07 license and other pertinent documents were placed in the -05 file for future reference. Based on the information found in this review, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

REGION II TERMINATED SITES LIST  
SITE STATUS REPORT

February 12, 1999

Docket No. 030-13137

License No. 52-17662-01

Licensee Name: Geotec Subsoil Exploration & Materials Lab.

Site Name: \_\_\_\_\_

Site Address: 1757 Extension to Ponce De Leon Avenue

Monacillos Ward

City: Rio Piedras State: PR Zip: \_\_\_\_\_

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 14.4

Background

This was an NRC license issued on October 7, 1977, authorizing possession and use of moisture/density gauges containing cesium-137 and americium-241:beryllium sealed sources. The license expiration date was January 31, 1988. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL was concerned over the lack of information regarding the status of the license and the disposition of material.

Assessment

As part of the review, Region II checked the active files and noted that an -02 license was issued to Geotec on March 1, 1988, superseding the -01 license. This occurred because the licensee failed to submit a timely application for renewal of the -01 license. All -01 inspection reports were transferred to the -02 license file. Review of those reports indicated no concerns regarding disposition of radioactive material. To date, all sources have been accounted for. Based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

February 26, 1999

Docket No. 070-01349

License No. SNM-01372

Licensee Name: Hospital Pavia

Site Name: \_\_\_\_\_

Site Address: Apartado 11137

City: Santurce State: PR Zip: 00910

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 66.9

Background

This was an AEC license issued on July 18, 1973, for possession and use of eight plutonium-238 sources as components of cardiac pacemakers for implantation in patients. The license expired on July 31, 1983. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure.

Assessment

Region II reviewed the file and found that it was superseded by NRC License SNM-01944, which was issued on January 16, 1985. SNM-01372 was last inspected by NRC on January 13, 1982, and at that time three patients/sources were being tracked. When SNM-01944 was issued, it allowed for three sources, and the licensee indicated in a August 27, 1984, letter responding to a Region II notice of license expiration that there was no intention to implant more plutonium pacemakers. Therefore, it appears that the supersedure of SNM-01372 by SNM-01944 was appropriate, with all remaining sources accounted for at the time of termination of SNM-01372. Based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**February 26, 1999**

Docket No. 070-03012

License No. SNM-01944

Licensee Name: Hospital Pavia

Site Name: \_\_\_\_\_

Site Address: 1642 Asia Street

City: Santurce State: PR Zip: 00910

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 100.3

Background

This was an NRC license issued on January 16, 1985, for possession and use of three plutonium-238 sources as components of cardiac pacemakers for implantation in patients. The license was terminated in March 1991. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure.

Assessment

Region II reviewed the file and found that it superseded NRC License SNM-01372, which expired on July 31, 1983. The application letter dated October 24, 1984, for SNM-01944 indicated that use of plutonium pacemakers had been definitely discontinued, and only three remaining patients/sources were being tracked. The licensee submitted a Form NRC-314, "Certificate of Disposition of Materials," on February 15, 1991, indicating that all sources had been returned to the manufacturer. However, Region II was unable to verify the disposition because the licensee did not keep a record of the pacemaker serial numbers implanted, and Medtronic (the manufacturer) could not confirm their return without serial numbers. Region II noted in the file on March 28, 1991, that it must be assumed from the licensee's statements on the 314 that the pacemakers were returned to the manufacturer. It was noted during review of this file and the SNM-01372 file, that inspection reports performed in the 1980s indicated that returns to the manufacturer were confirmed and that a Medtronic representative was present when pacemakers were removed. This information further supports the Region II acceptance of the licensee's statement that all sources were returned to the manufacturer. Therefore, given the fact that all reasonable efforts to verify the disposition of the three "unaccounted for" sources have been made, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**February 12, 1999**

Docket No. 030-19800

License No. 41-08165-15

Licensee Name: Tennessee Valley Authority

Site Name: Johnsonville Steam Plant

Site Address: \_\_\_\_\_  
\_\_\_\_\_

City: New Johnsonville State: TN Zip: \_\_\_\_\_

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 6.6

Background

This was an NRC license issued on November 2, 1982, authorizing the possession and use of cesium-137 sealed sources for use in fixed gauging devices. The license expiration date was October 31, 1987. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. Specifically, ORNL was concerned that the file did not contain adequate information pertaining to the disposition of 16 cesium-137 sealed sources.

Assessment

Region II contacted cognizant personnel within TVA Health and Safety, Muscle Shoals, Alabama, and were provided with documentation that the sources were properly disposed of through ADCO on September 20, 1984. A search of NUDOCS found some of the same documents (see attachments). All 16 sources were accounted for; therefore, based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**February 11, 1999**

Docket No. 030-06588

License No. 45-09469-01

Licensee Name: Avtex Fibers, Inc.

Site Name: \_\_\_\_\_

Site Address: Kendrick Lane  
\_\_\_\_\_

City: Front Royal State: VA Zip: 22630

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 5.9

Background

This was an AEC license issued to FMC Corporation on August 20, 1963, authorizing possession and use of various cesium-137 sealed sources, one cadmium-109 sealed source, and one small strontium-90 sealed source, for use in a variety of gauges (mostly fixed). In February 1977, the licensee's name changed to Avtex Fibers, Inc. At that time, the license was due to expire on June 30, 1983. In 1995, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL was concerned that the file did not have adequate information regarding the disposition of all the sealed sources.

Assessment

According to ORNL, the original file was stamped "Terminated June 13, 1980." Region II only had a copy of the file, and the most recent license document in the file was Amendment No. 16, dated April 25, 1979. No termination amendment was in the file. Region II reviewed the NUDOS system and found that the licensed period for License No. 45-09469-01 actually ran until October 8, 1991. Apparently, Avtex Fibers operated with the active NRC license until 1989 when it was shutdown by the EPA for water pollution problems. Avtex then declared bankruptcy in March 1990. Region II conducted an inspection on January 21-23, 1991, and determined that at the time of shutdown, the licensee possessed 18 sealed sources. Of those 18 sources, the inspector found that 15 were properly disposed of by Chem-Nuclear on November 1, 1989

(returned to vendors); two were in storage onsite awaiting disposal (cesium-137 sources, one 250 microcurie and one 500 millicurie); and one was unaccounted for (Ohmart gauge, s/n 60338, 300 millicuries) (see attachments). During the January 1991 inspection, the inspector also reviewed other records of previous disposals and noted no concerns. On February 28, 1991, Region II issued a letter to the facility's trustee confirming actions to (1) properly dispose of the two remaining sealed sources; and (2) search for the missing source and dispose of it, if found. The licensee located the missing gauge, and submitted a Form NRC-314, "Certificate of Disposition of Materials," on September 26, 1991, documenting the disposal of the three remaining sources and requesting termination of the license. Amendment No. 21 was issued on October 8, 1991, terminating the license (see attachments). Based on this information, Region II concluded that sufficient evidence existed to assume that all sources possessed by the licensee over the licensed period were properly disposed. If a 3 millicurie cadmium-109 sealed source licensed in June 1970 was not properly disposed, it has sufficiently decayed to be of no concern (approximately 22 half-lives since 1970). In addition, if a 15 microcurie strontium-90 sealed check source licensed in August 1963 was not properly disposed of, it has decayed to approximately 6 microcuries and does not pose a significant hazard. As indicated though, it appears unlikely that either of these sources was improperly disposed of. Therefore, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**April 1, 1999**

Docket No. 030-12246

License No. 45-17132-01

Licensee Name: Department of the Army

Site Name: U.S. Army Engineer District

Site Address:

City: Norfolk State: VA Zip: 23510

Regional Contact: Bryan A. Parker

Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 2.1

Background

This was an NRC license which authorized the possession and use of portable Troxler moisture/density gauges containing sealed sources of approximately 10 millicuries cesium-137 and 50 millicuries americium-241. The license was issued on October 21, 1976, and expired on October 31, 1981. In 1995, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL's concern was the lack of information in the file regarding disposition of the sources.

Assessment

Region II followed up and found that the -01 license was superseded by an -02 license issued in 1982 after the -01 license expired. The same sources were authorized on the -02 license. Contact with the Army Corps of Engineers revealed that the -02 license was formally terminated on February 29, 1988 with Amendment No. 5, based on submission of NRC Form 314, "Certificate of Disposition of Materials," dated February 5, 1988. A search of NUDOCs found copies of the termination and the NRC Form 314, which were placed in the file for future reference. The 314 indicated that the licensee transferred all of its sources to another Corps of Engineers office under NRC License No. 42-18723-01. It is unknown if Region II personnel verified the transfer at time of termination; however, Region II found from review of ORNL data records that the ORNL review of the -02 license resulted in a score of zero (0.0), inferring that ORNL was satisfied with the disposition information contained in the -02 file. Based on the information found in this review, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**March 8, 1999**

Docket No. \_\_\_\_\_

License No. GL-00337

Licensee Name: Cottrell Electronics Corp.

Site Address: 1 South Fifth Street

City: Richmond State: VA Zip: 23219

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

ORNL Final Score: 1.0

Background

This was an AEC license authorizing the receipt, demonstration, installation, relocation, maintenance and testing of fire detection devices distributed by Pyrotronics, Inc., each containing a sealed source with microcurie quantities of americium-241. It also authorized Cottrell to distribute the devices to persons generally licensed by 10 CFR 31.5. The license was issued on November 15, 1968, with a possession limit of 13 millicuries. The license was terminated on November 26, 1969. In 1995, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL was concerned about the lack of information in the file regarding disposition of the radioactive sealed sources.

Assessment

Review of the file clearly revealed that the license was terminated because the type of source authorized by the license was deemed by AEC to be an exempt quantity source, and could be distributed by Pyrotronics as exempt sources under its "E" license (29-08864-04E). Therefore, Cottrell, as the recipient, no longer needed a license, as it could receive, distribute, install, etc., the sources without regard to the radioactivity. On this basis, AEC terminated the license as noted above. Since the sources possessed by Cottrell became "exempt," disposition information is not necessary to close out this file. Therefore, based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**March 15, 1999**

Docket No. 070-00137

License No. SNM-00138

Licensee Name: Virginia Polytechnic Institute & State University

Site Name: Dept. of Mechanical Engineering

Site Address: Waste Storage Bldg.

City: Blacksburg State: VA Zip: 24061

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 5.1

Background

This was an NRC license authorizing the possession and use of uranium-233, uranium-235 and plutonium-239 in foil/plated sources for teaching, training and reference purposes. The license was issued on November 7, 1969, and terminated by Amendment No. 8 on February 6, 1987. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL was concerned about the lack of information in the file regarding disposition of two of fission foil sources, specifically 55 grams of uranium-235 and 15 grams of uranium-233.

Assessment

Region II reviewed the file and noted, in letter dated November 18, 1986, that the licensee requested to terminate the SNM-00138 license and place those materials under NRC License No. 45-09475-30 (Va. Tech's academic broadscope license). However, no specific information was given regarding the disposition of the sources noted above. The sources were listed on Amendment No. 7 of SNM-00138, but were not on the request for materials to be added to the broadscope license. The SNM-00138 termination amendment, Amendment No. 8, referred to a letter dated January 13, 1987, which was not in the SNM-00138 file. Region II reviewed NUDOCS and located the letter and a related telephone conversation record dated December 9, 1986. The conversation record requested additional information regarding the disposition of the aforementioned sources. The licensee provided the January 13, 1987, letter

and confirmed that fission foils consisting of 14.18 grams uranium-233 (the "15 gram " source) and 54.89 grams uranium-235 (the "55 gram" source) were transferred to Oak Ridge (DOE) on October 28, 1986. Therefore, all sources were accounted for, and the broadscope license was amended to add the remaining materials from SNM-00138. Copies of the December 9, 1986, conversation record, the January 13, 1987, letter, and Amendment No. 13 of the broadscope license were placed in the SNM-00138 file. Based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**February 9, 1999**

Docket No. 030-19905

License No. 34-21191-01

Licensee Name: Hunt Wireline Services

Site Name: \_\_\_\_\_

Site Address: 400-B Rayon Drive

City: Parkersburg State: WV Zip: \_\_\_\_\_

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 68.3

Background

This was a well-logging license issued on December 28, 1982, with a Youngstown, Ohio, mailing address, but the authorized place of use was at a Parkersburg, West Virginia, office and at temporary jobsites. The licensee was authorized to use americium-241:beryllium and cesium-137 sealed sources for well-logging, and iridium-192 and iodine-131 in any form for tracer studies. The license was amended once on March 30, 1983, to specify the Parkersburg office address. The licensee failed to pay required fees in 1984, and the license was revoked on January 4, 1985. The only inspection conducted during the licensed period was performed on August 30, 1983, and no violations or other concerns were identified. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL was specifically concerned that the documentation for disposition of the sealed sources was inadequate. There were no concerns regarding the other licensed materials due to the short half-lives of the material.

Assessment

The only documentation regarding disposition is a handwritten note in the file that reads: "J. Stewart, 2/25/85, said sold to Great Guns Inc., Wichita, Kansas, letter to NRC 1/84." From this it was not clear whether the sources, the company, or both were sold to Great Guns. Region II contacted the State of Kansas Bureau of Air and Radiation (Mr. Vick Cooper) and discussed the issue. Mr. Cooper checked the Kansas records and indicated that Great Guns had been licensed at that time for similar sources. However, there was no evidence in the State's file the transfer took place. The Great Guns license was terminated by the State in October 1997 after the death of its principal.

Region II contacted the former radiation safety officer of Hunt Wireline, Mr. Lewis Eugene Full (Vienna, WV), but he knew nothing of the sources since he left the company just prior to it filing for bankruptcy.

Region II then contacted the former consultant, Mr. Keith E. Moon (DeLeon, TX), who recalled that the company assets went to Great Guns after the licensee filed for bankruptcy. Mr. Moon assumed the sources went as well but he had no specific knowledge about the sources. Mr. Moon indicated that the Great Guns company had since been bought out by a foreign company and all of the U.S. operations terminated.

Region II also contacted the former general manager of Hunt Wireline, Mr. Jeffery C. Stewart (Salem, OH). Mr. Stewart recalled that the trucks, computers and sources were all leased from Great Guns originally and that when Hunt filed for bankruptcy, Great Guns simply took back its leased property. He further indicated that the sources and computers were part of the trucks, and that the trucks had gone back to the Hunt offices in Youngstown, OH in 1984 after bankruptcy was filed and the Parkersburg, WV office closed. Based on this information, Region II concluded, although not definitively, that a reasonable effort had been made to establish the disposition of the sources. It appears most likely that the sources were taken over by Great Guns in 1984 and properly disposed of or transferred before or during the Kansas license termination. Therefore, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**February 12, 1999**

Docket No. \_\_\_\_\_

License No. 47-09638-05

Licensee Name: Charleston General Hospital

Site Address: Elmwood Avenue and Brooks Street

City: Charleston State: WV Zip: 25325

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 3.5

Background

This was an AEC license issued on June 29, 1967, authorizing medical use of a number of radioisotopes. The license was terminated on April 27, 1973. Most of the radioactive materials authorized were short-lived (120 day half-lives or less), but two relatively long-lived items were authorized. These were 250 microcuries of cobalt-60-labeled Vitamin B-12, and 100 microcuries of cesium-137 calibration sources. In 1995, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure.

Assessment

As part of the file review, Region II checked the active files and noted that License No. 47-15473-01 was issued to Charleston Area Medical Center in March 1973. That license was issued based on letter dated January 5, 1973, but the letter could not be located in the file or on the NUDOCS system. The termination amendment of License No. 47-09648-05 was also based on letter dated January 5, 1973. That letter described the change in names, indicated that a "broadscope" license was wanted, and that an application was attached; however, the attachment was not in the file nor could it be located in the NUDOCS system. In addition, the Medical Center license was issued for the same authorized place of use (Elmwood Avenue and Brooks Street) and the same radioactive materials as the terminated General Hospital license. Therefore, License No. 47-15473-01 simply superseded the terminated license and changed names at the same time. The only potential concern with the terminated license would be the cobalt-60-labeled Vitamin B-12 that was listed on Amendment No. 2 on September 19, 1967, and dropped off with a renewal of the license on October 4, 1968 (Amendment No. 4). There is no information regarding disposition of this material in the file or on NUDOCS, but it is unlikely that this material was still possessed at the time of renewal. However, if the licensee possessed the maximum amount allowed (250 microcuries) at that time, the material has since been through approximately 6 half-lives and has decayed to less than 5 microcuries, and would pose essentially no threat to public health and safety. Therefore, based on the information gathered, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**February 11, 1999**

Docket No. 030-06704

License No. 47-13738-01

Licensee Name: Matthiessen & Hegeler Zinc Co.

Site Name: \_\_\_\_\_

Site Address: Main Street

City: Spelter State: WV Zip: 26438

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 1.3

Background

This was an AEC license issued on July 10, 1970, authorizing possession and use of one sealed source of cesium-137 (1 curie) for use in a belt weigh scale. The license was terminated on September 28, 1972. In 1995, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL was concerned that the file did not have adequate information regarding the disposition of the source. ORNL noted that the file indicated that the licensee company was sold to Meadowbrook Corporation, and that Meadowbrook had applied for a license.

Assessment

A review of Region II records revealed that Meadowbrook Corporation held NRC License No. 47-15333-03 in the 1986-87 timeframe. A review of the full listing of terminated files reviewed by ORNL revealed that Meadowbrook Corporation held License Nos. 47-15333-01, -02, -03 and -04. ORNL review of those licenses did not identify any of them as needing additional followup. It was assumed from this information that the -01 Meadowbrook license superseded License No. 47-13738-01 in approximately 1972, as was alluded to in the file. In an effort to confirm this, Region II searched NUDOS for related information. The search found no information regarding the -01, -02 or -03 licenses; however, the search did reveal found that License No. 47-15333-04 was properly terminated on November 19, 1991. The Form NRC-314, "Certificate of Disposition of Materials," submitted by Meadowbrook on November 14, 1991, documented the transfer of the 1-curie cesium-137 sealed source to Texas Nuclear (see attachments). From this, Region II concluded that the -01, -02, -03 and -04 licenses all superseded one another, providing a "cradle-to-grave" history of the source. Based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

REGION II TERMINATED SITES LIST  
SITE STATUS REPORT

March 8, 1999

Docket No. 030-12643

License No. 47-17373-01

Licensee Name: State Construction, Inc.

Site Name: \_\_\_\_\_

Site Address: Intersection of State Rte. 87 ans U. S. Rte. 33

City: Ripley State: WV Zip: \_\_\_\_\_

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

ORNL Final Score: 25.1

Background

This was an NRC license authorizing the possession and use of Troxler portable moisture density gauges containing one sealed source each of cesium-137 (10 millicuries) and americium-241:beryllium (50 millicuries). The license was issued on April 14, 1977, for five gauges, but was later amended with language that did not specify the exact number of sources. The license expired on August 31, 1987. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL was concerned about the lack of information in the file regarding disposition of the radioactive sealed sources.

Assessment

Review of the file revealed that a letter dated September 24, 1987, gave disposition information about one gauge; however, reports for inspections in July 1978 and August 1983 both indicated that the licensee possessed four gauges. Therefore, it appeared that at least three gauges were unaccounted for. Region II continued the followup through the manufacturer, Troxler Electronics, which provided service/leak test and disposal information about the gauges. Troxler conducted a record search and reported that four gauges (Serial Nos. 4505, 4506, 4507 and 4508) were originally sold to State Construction. Leak test/service records showed that those same gauges, as of mid-to-late 1998, were held by other licensed parties (i.e., Triad Engineering, Winchester, VA; and CTL Engineering, Columbus, OH), and with no evidence of leakage. Although the exact status of the gauges between 1983 and 1987 is unknown, it can be assumed that the licensee properly transferred three of the gauges during the 1983-87 timeframe and properly transferred the fourth gauge as described above in September 1987. Based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**April 30, 1999**

Docket No. 030-12741

License No. 47-17428-01

Licensee Name: Allied Chemical Corp.

Site Name: Somet-Solvay Division

Site Address: \_\_\_\_\_

City: Capels State: WV Zip: 24820

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

ORNL Final Score: 1.9

Background

This was an NRC license authorizing the possession and use of one Troxler portable moisture density gauge containing one sealed source each of cesium-137 (8 millicuries) and americium-241:beryllium (40 millicuries). The license was issued on May 31, 1977, and terminated on August 31, 1981. In 1995, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL was concerned about the lack of information in the file regarding disposition of the radioactive sealed sources.

Assessment

Region II followed up through the manufacturer, Troxler Electronics, which provided leak test information about the gauge. Troxler conducted a record search and reported that one gauge, Serial No. 4791, was originally sold to Allied Chemical in September 1977. Troxler had not serviced the gauge, but Troxler did have a leak test record (no leakage) for the gauge dated December 9, 1998. According to Troxler, that leak test was submitted by Virginia Crews Coal Company. A check of Region II records revealed that Virginia Crews is an active licensee, and a recent inspection report listed this gauge, by serial number, as the only gauge in its inventory. Region II contacted Virginia Crews and verified the information. Virginia Crews provided documentation that indicated that Allied Chemical transferred the gauge to A.T. Massey Corporation in 1981 which, in turn, transferred it to Virginia Crews in October 1985 when it received an NRC license. Although the status of the gauge from 1981 to 1985 could not be confirmed, it appears that the source was in storage until A.T. Massey transferred it. Based on this information accounting for the gauge, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

REGION II TERMINATED SITES LIST  
SITE STATUS REPORT

March 8, 1999

Docket No. 030-12881

License No. 47-17517-01

Licensee Name: Preston Contractors, Inc.

Site Name: \_\_\_\_\_

Site Address: Box 757

City: Kingwood State: WV Zip: 26537

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

ORNL Final Score: 1.9

Background

This was an NRC license authorizing the possession and use of one Troxler portable moisture density gauge containing one sealed source each of cesium-137 (8 millicuries) and americium-241:beryllium (40 millicuries). The license was issued on May 19, 1977, and terminated on June 11, 1979. In 1995, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL was concerned about the lack of information in the file regarding disposition of the radioactive sealed sources.

Assessment

Region II followed up through the manufacturer, Troxler Electronics, which provided leak test and disposal information about the gauge. Troxler conducted a record search and reported that one gauge, Serial No. 4584, was originally sold to Preston Contractors. That same gauge was disposed of through Troxler in August 1996. Although the exact status of the gauge between 1979 and 1996 is unknown, it can be assumed that the gauge was held by properly licensed parties during that period since it was returned properly to Troxler for disposal with no reports of leakage. Based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**March 8, 1999**

Docket No. 030-17074

License No. 47-19164-01

Licensee Name: Green Construction, Inc.

Site Address: \_\_\_\_\_

City: Hinton State: WV Zip: \_\_\_\_\_

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

ORNL Final Score: 8.4

Background

This was an NRC license authorizing the possession and use of Troxler portable moisture density gauges containing one sealed source each of cesium-137 (10 millicuries) and americium-241:beryllium (50 millicuries). The license was issued on January 11, 1980, with language that authorized Troxler 3400 Series gauges, but did not specify the exact number of sources. The license was terminated on November 13, 1986. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL was concerned about the lack of information in the file regarding disposition of the radioactive sealed sources.

Assessment

Review of the file revealed that a NRC Form 314, "Certificate of Disposition of Materials," dated October 28, 1986, gave appropriate disposition information about one gauge (Serial No. 10821); however, a December 1985 inspection report indicated that the licensee possessed two Troxler gauges (Serials No. 10821 and 6765). Therefore, it appeared that at least one gauge was unaccounted for. Region II continued the followup through the manufacturer, Troxler Electronics, which provided service/leak test and disposal information about the gauges. Troxler conducted a record search and reported that three gauges (Serial Nos. 6765, 10821 and 12311) were originally sold to Green Construction. Leak test/service records showed one of the gauges was held by other licensed parties (Serial No. 10821 was transferred in 1986 by Green to Charleston Construction, Charleston, WV; the gauge is now possessed by Triad Engineering, Winchester, VA) with no evidence of leakage. The other two gauges, Serial Nos. 12311 and 6765, were disposed of by Troxler in 1992 and 1998, respectively, with no evidence of leakage. Although the exact status of those two gauges is unknown during the periods not possessed by Green, it can be assumed that the licensee properly transferred the gauges to someone who eventually properly disposed of them through Troxler. Based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

REGION II TERMINATED SITES LIST  
SITE STATUS REPORT

February 19, 1999

Docket No. 030-19891

License No. 47-21213-01

Licensee Name: Acme Construction Company

Site Address: Old Rte US 21

City: Skelton State: WV Zip: \_\_\_\_\_

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 8.4

Background

This was an NRC license issued on December 6, 1982, for possession and use of cesium-137 and americium-241 in Troxler 3400 series portable moisture/density gauges. The licensee possessed one gauge containing approximately 10 millicuries of cesium-137 and 50 millicuries of americium-241. In October 1983, the licensee filed for bankruptcy, and in 1984, the licensee failed to pay required inspection fees. As a result, NRC revoked the license on January 4, 1985. On June 5, 1985, Region II confirmed that the gauge was still in safe storage at the former licensee's facility. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL's concern was that, beyond the June 5, 1985, visit, there was no information in the file regarding disposition of the gauge.

Assessment

Region II reviewed the file and NUDOCS and found no additional information. Region II contacted the former company president, Doris Francesa, and inquired about the disposition of the gauge. Ms. Francesa indicated that in the final breakup of the company, the gauge had been sold to an individual, but she could not recall a name or company. Region II also contacted Gloria King, who is the spouse of Maurice L. King, former Radiation Safety Officer named on license. Mrs. King also worked for the licensee. Mrs. King recalled the gauge being sold to a man who had a license and another gauge. Mrs. King contacted Mr. King, and relayed that he recalled the gauge being sold to an individual who had other gauges, a license and only did testing work. Region II attempted to track down the gauge through the manufacturer, Troxler, but was unsuccessful since no serial number was available. Given that three individuals associated with the former license gave statements indicating apparent proper disposition of the gauge, and no further confirmation can be pursued with the available information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

REGION II TERMINATED SITES LIST  
SITE STATUS REPORT

February 19, 1999

Docket No. 070-00574

License No. SNM-00522

Licensee Name: Department of the Interior

Site Name: Morgantown Research Center

Site Address: P.O. Box 880

City: Morgantown State: WV Zip: 26505

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 18.4

Background

This was an AEC license issued on August 21, 1961, for possession and use of plutonium-239:beryllium and plutonium-238 sealed sources for research and development purposes. The license expiration date was August 31, 1977. In 1995, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure.

Assessment

ORNL's concern was that no disposition of the material was given in the file. However, Region II reviewed the file and noted that letter dated April 24, 1978, from the Department of Energy requested termination of this license because the activities covered by the license were now under DOE's jurisdiction. Therefore, based on this information, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

**REGION II TERMINATED SITES LIST  
SITE STATUS REPORT**

**February 9, 1999**

Docket No. 030-09760

License No. 08-00038-54

Licensee Name: Department of the Navy

Site Name: Naval Electronics System Command

Site Address: \_\_\_\_\_

City: Washington, DC State:      Zip:     

Regional Contact: Bryan A. Parker Phone: (404) 562-4728

Status Summary:

ORNL Final Score: 166.1

Background

This was a license issued to the Navy on August 24, 1973, authorizing americium-241:beryllium sealed sources for use in checking radiation detection systems anywhere in the U.S. In September 1987, the Navy received its Master Materials License (MML), and this license was superseded by Navy Radioactive Materials Permit No. 08-00024-T2NP under the MML. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. ORNL was specifically concerned that the file indicated that approximately 150 sources were possessed, but there was no documentation for disposition of the sealed sources. ORNL assumed that the license was superseded by a MML permit, but no information regarding this was in the file.

Assessment

In April 1998, Region II contacted Navy RASO and inquired about ORNL's concerns. RASO provided the information pertaining to the superseding MML permit, indicating that these sources were used in the Naval Nuclear Propulsion Program (NNPP). RASO further explained that during the permit period, the sources were exempted from NRC jurisdiction based on the statements contained in the March 6, 1991, NRC letter regarding sources in the possession of the NNPP. The permit was subsequently terminated by the Navy on February 17, 1993. Terminations of permits are routinely reviewed by Region II as part of the annual Navy program review. Based on this information, Region II concluded that the NRC license file was properly closed out, although the amendment terminating the license was not in the file and was not available from NUDOCS. In addition, the Navy's actions during the permit period and at termination of the permit were adequate. Therefore, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

REGION II QUARTERLY INFORMATION STATUS REPORT

STATUS OF SITES IDENTIFIED BY ORNL

	Total	Sites Closed or Eliminated	Total Sites Pending (including transfers)	Pending Sites Contaminated
> 300	9	6	3	3 -UCAR -ARCO <sup>1</sup> -Naval Res. Lab. <sup>1</sup>
5-300	53 <sup>6</sup>	33	20 <sup>3,4,5,6</sup>	2 <sup>2</sup> -Homer Laughlin China -Fostoria Glass
Total	62	39	23	5

- 1 - ARCO and the Naval Research Lab were added to listing as part of Phase III of ORNL Terminated License Review Project (Jan/Mar 1998). ARCO is under review by Region II. Naval Res. Lab is under review by Region II, with Navy input (includes burials that must be addressed).
- 2 - DuPont is also pending because they must address buried drums, not due to known contamination.
- 3 - **Four (4) sites were transferred to Agreement States and three (3) of those have been closed based on the States' responses. One (1) site remains open awaiting additional info from the State of Florida.**
- 4- The State of Georgia is overseeing the CDC's evaluation of the Oatland Island site associated with terminated NRC License Nos. 10-00512-01 & -04, but the files have not been officially transferred to the State.
- 5- **Two (2) files are recommended for closure based on Region II action.**
- 6- **33 >>> 30 - Closed or eliminated by Region II  
+ 3 - Closed by Agreement States**  


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**+ 20 >>> 2 - Recommended for closure by Region II action  
+ 1 - Agreement State transfer - awaiting info  
+ 1 - Navy transfer - awaiting info  
+ 2 - Georgia monitoring for Region II (see note 4)  
+14 - Open - to be reviewed by Region II**  


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**53 - TOTAL for <300 sites**

STATUS OF LICENSES WITH SEALED SOURCES NOT ACCOUNTED FOR

	Total	Closed, Transferred, or Pending transfer	Pending Review by Region II
> 300	0	0	0
1-300	100	90	10
Total	100 <sup>1</sup>	90 <sup>2,3</sup>	10

1 - Twenty-five (25) sites were added as part of Phase III of ORNL Terminated License Review Project (Jan/Mar 1998).

2- Fifty-one (51) sites have been closed (includes two (2) that were transferred to other Regions). Twenty (20) sites were transferred to Agreement States: fourteen (14) of those have been closed by their respective States; four (4) are recommended for closure; and two (2) remain open awaiting State response. Thirteen (13) are Navy sites which, after review by Region II, were transferred to the Navy in February 1999 for review/closure. The remaining open sites, eleven (11), will be reviewed by Region II for closure.

37 - closed by Region II/ transferred to another Region  
 + 14 - closed by Agreement States  
 + 23 - recommended for closure by Region II action  
 + 1 - Agreement State transfers recommended for closure  
 + 2 - Agreement State transfers remaining open  
 + 13 - Navy files transferred  
 90  
 + 10 - Open files for Region II review  
 100 - TOTAL

3- A total of twenty-four (24) sealed source sites are recommended for closure in this report - see Attachment 3 for status summaries.

## TABULAR SUMMARY OF REGION II TERMINATED SITES

1. Region II Sites, Scores >300
2. Region II Sites, Scores >5<300
3. Region II Sealed Source Sites, Scores >1<300

## REGION II TERMINATED SITES, SCORES >300

As of 06/30/99

LICENSE NO.	LICENSEE NAME	CITY, STATE	ORNL SCORE	STATUS
SNM-00260	Lockheed-Georgia	Dawsonville, GA	6,534	Closed by RII action
SNM-00724	Union Carbide	Lawrenceburg, TN	15,456	Open (note 3)(note 4)
SNM-00109	American Lava	Chattanooga, TN	6,140	Closed by RII action
SUB-00587	David Witherspoon	Knoxville, TN	346	Closed by RII action
45-02808-02	Atlantic Research Corp (ARCO)	Alexandria & Gainesville, VA	6,283	Open (note 5)(note 6)
45-14090-02	EPA	Vienna, VA	750	Closed by RII action
SNM-00730	B&W NNFD	Lynchburg, VA	7,346	Closed by RII action
STB-00440	AMAX Spec. Metals	Washington, WV	321	Closed by RII action
<b>U.S. NAVY</b>	<b>LICENSES</b>			
08-01393-02	Naval Research Lab	Washington, DC	3,352	Open (note 5)(note 7)

**NOTES:**

(Changes printed in bold typeface)

1. Original list had seven sites with scores >300.
2. Six sites have been removed from list through RII-supplied information.
3. UCAR submitted survey/sampling plan 11/94. RII comments to UCAR 1/12/95. UCAR response received 5/95. RII response forwarded to State of Tennessee for review 6/95. State comments received 6/95 and are under review. RII comments forwarded to UCAR 08/03/95. UCAR response to comments reviewed and RII approved plan 11/95. Licensee has tentatively scheduled survey to begin in the spring of 1996. UCAR started survey in April, 1996 and expected to complete in June. Expected completion date changed to end of August, 1996. Two soil samples obtained by NRC during June, 1996 inspection confirmed to contain uranium above release criteria. UCAR expects to forward survey report to RII in November, 1996. UCAR amended its date to forward the survey report to late March or early April, 1997. In June 1997, contractor was still revising report. UCAR had not accepted the original because it did not include proposals for remediation. UCAR expects to forward to RII by September 30, 1997. Due to downsizing of contractor, UCAR had to obtain another contractor. The new contractor plans to have a decommissioning plan submittal prepared by mid-December 1997. A joint meeting was held on January 16, 1998, with Region II, UCAR, NFS (contractor), and State of Tenn. personnel. Results of characterization surveys were presented, and discussion was held regarding proposed remediation. UCAR, via NFS, is preparing a decommissioning plan. UCAR proposed unrestricted release criteria of 100 millirem dose. Region II responded with letter dated 4/20/98 indicating that 100 millirem for unrestricted use was unacceptable. UCAR indicated during telephone discussions in May/June 1998 that they accepted Region II's response regarding 100 millirem unrestricted release and would direct their contractor to develop the decommissioning plan based on 25 millirem instead. On August 19, 1998, UCAR submitted their decommissioning plan to Region II for approval. Review of the plan is ongoing. In late February 1999, NMSS and OSP decided that a **Commission ruling was unnecessary, and to proceed with the clean-up with NRC as the lead agency over the decommissioning.** In April 1999, it was determined that a **EA was needed as part of the review for the DP, so DWM began preparing one.** Also, in April-May 1999, the DP was reviewed by **DWM and Region II and found to be deficient.** As of June 1999, the completed EA was being reviewed by the **NMSS EIS review team, and Region II was preparing a deficiency letter for UCAR to address the issues found during the DP review.**
4. Office of State Programs (OSP) issued transmittal SP-97-080 indicating that NRC was going to turn over all terminated site files for sites located in Agreement States to the respective state. However, State of Tennessee has requested that UCAR not be turned over to maintain continuity during the ongoing decommissioning. Region II, OSP, and OGC are reviewing the issue and negotiating with the state regarding what roles each agency will play. In late 1998, questions arose regarding what agency (NRC v. the State of Tenn.) should have jurisdiction over the decommissioning. As of February 4, 1999, NMSS was preparing a Commission Paper recommending that the site be turned over to the State. In late February 1999, **NMSS and OSP decided that a Commission ruling was unnecessary, and to proceed with the clean-up with NRC as the lead agency over the decommissioning.**
5. Added to listing from Phase III of ORNL Terminated License Review Project (received by RII in Jan/Mar 1998).
6. As of February 4, 1999, ARCO was under active review by RII. Review thus far found that the Cherokee Avenue site was adequately decommissioned under a different license (the -08 license); however, questions remain about the status of the Pine Ridge plant. The former licensee, ARCO, is researching the issue; RII is awaiting a response from them. On June 22, 1999, RII contacted ARCO and noted that records have been retrieved, but not yet fully reviewed by them.
7. As of February 4, 1999, Naval Research Lab was under active review by RII. Review thus far found that the Overlook and Waldorf site were adequately decommissioned; however, questions remain about the status of alleged burials of waste onsite. Navy-RASO is researching the issue; RII is awaiting a response from them. As of June 22, 1999, the Navy had completed its review of all transferred sites and drafted a report for Navy RSC concurrence, which includes a review of the NRL alleged burials.

## REGION II TERMINATED SITES, SCORES >5<300

As of 06/30/99

LICENSE NO.	LICENSEE NAME	CITY, STATE	ORNL SCORE	STATUS
01-00126-13	Army-Redstone Arsenal	Huntsville, AL	14	Recommended for closure by RII action
01-02861-01	US Army Chem. Corps	Ft. McClellan, AL	240	Closed by RII action
SNM-00842	EPA (Eastern Env. Rad. Facility)	Montgomery, AL	19	Closed by RII action
09-01708-01	Orlando Research, Inc.	Orlando, FL	40	Open - Transferred to State of Florida & awaiting additional info. Initial response rec'd 09/23/98.
09-02747-04	US Air Force	Eglin AFB, FL	6	Deleted by NMSS
09-07428-02	Florida Power & Light	Ft. Pierce, FL	84	Closed by RII action
10-00512-01	US Public Health Service (HHS)	Savannah, GA	12	Open (note 5)(note 7)
10-00512-04	US Public Health Service (HHS)	Savannah, GA	83	Open (note 5)(note 7)

REGION II TERMINATED SITES, SCORES >5<300 (As of 06/30/99)

LICENSE NO.	LICENSEE NAME	CITY, STATE	ORNL SCORE	STATUS
10-01937-15	Georgia Tech	Atlanta, GA	163	Deleted by NMSS
10-01125-01	University of Georgia	Athens, GA	11	Closed by RII action
10-09653-01	Luminous Processes, Inc.	Athens, GA	53	Closed by State of Georgia (note 4) (note 5)
16-00380-03	US Army Med. Res. Lab.	Ft. Knox, KY	31	Closed by RII action
SNM-00430	Radiochemistry, Inc.	Louisville, KY	10	Closed by State of Kentucky (note 4)
SUB-00432	Pittsburgh Metallurgical Co.	Calvert City, KY	14	Closed by RII action
32-00632-16	Duke Univ. Med. Cntr.	Durham, NC	148	Closed by RII action
32-06655-07	Duke University	Durham, NC	32	Closed by RII action
51-12758-02	US Army (535th Engineer Detachment)	Fort Davis Canal Zone, Panama	11	Closed by RII action
52-13137-01	Dept. of HEW	San Juan, PR	48	Open

REGION II TERMINATED SITES, SCORES >5<300 (As of 06/30/99)

LICENSE NO.	LICENSEE NAME	CITY, STATE	ORNL SCORE	STATUS
52-15968-01	TII Industries, Inc.	Toa Alta, PR	34	Open (note 5)
39-00743-05	Medical College of South Carolina	Charleston, SC	205	Closed by RII action
39-01285-03	University of South Carolina	Columbia, SC	18	Closed by RII action
39-12662-01	Jerry Walker and Charles Lee	Clemson, SC	7	Deleted by NMSS
41-08165-09	Tennessee Valley Authority	Soddy Daisy, TN	244	Open (note 5)
41-08165-17	Tennessee Valley Authority	Chattanooga, TN	6	Open (note 5)
C-03469	American Lava	Chattanooga, TN	33	Closed by RII action
C-03569	Kingston Pencil Corp.	Chattanooga, TN	10	Closed by State of Tennessee (note 4)
C-05317	Knoxville Iron Co.	Knoxville, TN	45	Closed by RII action
SMA-00227	Vitro Chemical	Chattanooga, TN	123	Closed by RII action
SMB-00720	Union Carbide	Lawrenceburg, TN	219	Consolidated with SNM-724 (>300)

REGION II TERMINATED SITES, SCORES >5<300 (As of 06/30/99)

LICENSE NO.	LICENSEE NAME	CITY, STATE	ORNL SCORE	STATUS
SNM-01315	US Nuclear	Oak Ridge, TN	180	Closed by RII action
SNM-01476	Tennessee Valley Authority	Chattanooga, TN	16	Open (note 5)
10-12233-02	Southern Space, Inc.	Portsmouth, VA	122	Closed by RII action (note 5)
45-00953-02	US Army	Ft. Belvoir, VA	40	Closed by RII action
45-03499-05	College of William & Mary	Williamsburg / Newport News, VA	57	Recommended for closure by RII action (note 5)
45-10085-03	Roanoke College	Salem, VA	66	Closed by RII action
45-13733-01	Meloy Labs, Inc.	Springfield, VA	50	Open (note 5)
45-17819-01	US Army (535th Engr. Det.)	Ft. Belvoir, VA	11	Open
C-03465	B&W NNFD	Lynchburg, VA	81	Closed by RII action
C-03523	National Advisory Committee for Aeronautics	Langley Field, VA	8	Open

REGION II TERMINATED SITES, SCORES >5<300 (As of 06/30/99)

LICENSE NO.	LICENSEE NAME	CITY, STATE	ORNL SCORE	STATUS
SUB-00921	Atlantic Research Corp. Research & Ordnance Division	Alexandria, VA	22	Closed by RII action
SUC-01047	Portsmouth Terminal	Portsmouth, VA	64	Closed by RII action
47-01163-20	West Virginia University	Morgantown, WV	41	Open (note 5)
47-17725-01	Appalachian Reg. Hosp. Facility	Beckley, WV	13	Deleted by NMSS
C-04327	Fostoria Glass Co.	Moundsville, WV	15	Open (note 3)
C-04345	Wheeling Tile Co.	Wheeling, WV	7	Closed by RII action
C-04576	Hercules Powder Co.	Ridgely, WV	6	Open
C-04922	Carborundum Company	Parkersburg, WV	84	Closed by RII action
STB-00058	E. I. DuPont de Nemours	Belle, WV	37	Open (note 2)
SUB-00081	Homer Laughlin China	Newell, WV	115	Open (note 1)
SUC-00628	Fostoria Glass Co.	Moundsville, WV	9	Open (note 3)

REGION II TERMINATED SITES, SCORES >5<300 (As of 06/30/99)

LICENSE NO.	LICENSEE NAME	CITY, STATE	ORNL SCORE	STATUS
<b>U.S. NAVY</b>	<b>LICENSES</b>			
04-02579-01	Naval Postgraduate School	Monterey, CA	19	Closed by RII Action
04-07316-02	Naval Energy & Environmental Support Activity	Port Hueneme, CA	34	Closed by RII action (note 5)
31-00718-02	New York Naval Shipyard Material Lab	Brooklyn, NY	7	Transferred to the Navy for followup (note 6)

NOTES:

(Current information printed in bold typeface)

1. Homer Laughlin's remediation efforts continue. New estimated date for completion is July/August, 1995. HLC submitted request for approval of alternative release criteria for fixed contamination in some areas of facility and on some equipment. Request reviewed by RII personnel. Forwarded to NMSS for review and approval in 11/95. Some areas at facility surveyed and released by RII personnel in 12/95. NMSS requested additional information from licensee before decision on TAR. Licensee preparing response and expects to forward in June, 1996. Response not received. RII has scheduled inspection of former licensee facility to determine status of facility and progress on response. RII inspected in August, 1996. Licensee continues to work on response and expects to forward to RII by December, 1996. Due to contractor problems, HLC response has been further delayed. Response expected by March 10, 1997. Response delayed - expected to be completed June 27, 1997, by contractor. Software problems caused additional delay. Contractor is resolving problems and will submit ASAP. Licensee provided remainder of response by letter dated January 28, 1998. Region II is preparing TAR for DWM to review response. TAR was sent to HQ on 10/02/98 requesting review in light of new decommissioning rule. As of February 4, 1999, no response received. On February 25, 1999, Region II was notified that the HLC TAR issue had been chosen by the SRP Dose Modeling Group in NMSS to be a "test case" in the development of the SRP. On March 1, 1999, an inspection/meeting was conducted at the HLC facility in Newell, WV. The inspection revealed no concerns regarding the status of the facility and the remaining low-level contaminated waste being stored onsite until the issue is resolved. In the meeting, Region II discussed the status of the TAR and the informed HLC of the case being chosen as a test case for the SRP development. In March 1999, NRC published draft NUREG-1640, "Radiological Assessments for Clearance of Equipment and Materials from Nuclear Facilities," which will probably be used by the SRP group during their review of the HLC case. As of June 22, 1999, Region II had received no feedback regarding the status of the case.

2. DuPont will evaluate the burial site using the draft Branch Technical Position, "Screening Methodology for Assessing Prior Land Burials of Radioactive Waste Authorized Under Former 10 CFR 20.304 and 20.302," dated October 1996, and submit for review. As of April 23, 1998, no submittals had been made. BTP has not been finalized. As of September 24, 1998, no submittals had been made. The BTP is not scheduled to be finalized. Region II is awaiting other guidance

REGION II TERMINATED SITES, SCORES >5<300 (As of 06/30/99)

regarding former burials from DWM. As of February 4, 1999, no submittals had been made. The BTP is not scheduled to be finalized. Region II is awaiting other guidance regarding former burials from DWM. **On June 22, 1999, Region II contacted DWM and requested guidance on how to proceed with the DuPont case. From discussions with DuPont on June 22, 1999, no change in status was noted. Region II is awaiting word from DWM regarding how best to proceed.**

3. A response to a Technical Assistance Request from Region II will be enhanced by Headquarters regarding the indoor exposure component at the Fostoria Glass site. Region II is gathering the information needed to complete the response. Region II is preparing another TAR for DWM, and reviewing RESRAD-BUILD for site-specific input. Region II re-reviewed issue and will attempt to close without a formal TAR. If that is not possible, a TAR will be prepared.
4. Office of State Programs (OSP) issued transmittal SP-97-080 indicating that NRC was going to turn over all terminated site files for sites located in Agreement States to the respective state. In addition, transmittal SP-98-025 informed the Agreement States of possible funding for closing out terminated sites which are turned over. In May 1998, Region II notified the Agreement States of the requisite sites in their jurisdiction, and has requested each State to provide notification to Region II as sites are closed out.
5. Added to listing from Phase III of ORNL Terminated License Review Project (received by RII in Jan/Mar 1998).
6. File was discussed at Navy Radiation Safety Committee Meeting on February 22, 1999. **As of June 22, 1999, the Navy had completed its review of all transferred sites and drafted a report for Navy RSC concurrence.**
7. Due to media interest regarding buried radwaste, State of Georgia became involved. CDC (former licensee) is assessing the situation and State of Georgia is providing oversight.

**REGION II TERMINATED SITES, SEALED SOURCES ONLY  
SCORES >1 BUT <300  
AS OF 06/30/99**

LICENSE NO.	LICENSE NAME	CITY, STATE	ORNL SCORE	STATUS
01-01905-01	AW Williams Inspection Co.	Mobile, AL	2.2	Recommended for closure by RII Action (note 1)(note 4)
01-02377-01	Vester Thompson	Mobile, AL	3.0	Closed by RII Action
01-02377-02	Vester Thompson	Mobile, AL	11.2	Closed by RII Action
01-02510-02	Central Foundry Co.	Holt, AL	22.1	Closed by RII Action
01-03568-01	Caldwell Foundry	Birmingham, AL	2.6	Recommended for closure by RII Action (note 1)(note 4)
01-03568-02	Caldwell Foundry	Birmingham, AL	2.6	Recommended for closure by RII Action (note 1)(note 4)
01-04151-01	Ephriam Camp, MD	Huntsville, AL	9.9	Closed by State of Alabama (note 1)
01-05661-03	Lloyd Noland Hospital	Fairfield, AL	28.2	Closed by RII Action
01-09722-01	HK Porter	Birmingham, AL	1.9	Closed by RII Action
01-11485-01	Chicago Bridge & Iron	Birmingham, AL	2.5	Closed by RII Action
19-01398-31	Isotopes, Inc./US Coast Guard	Mobile, AL	291.0	Closed (Transfer to Region I)
CSA-03529	Alabama Polytechnic Inst.	Auburn, AL	2.6	Closed by RII Action
SNM-00766	University of Alabama	Tuscaloosa, AL	7.3	Closed by RII Action
SNM-00842	EPA Eastern Env. Rad. Facility	Montgomery, AL	14.0	Closed by RII Action

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 06/30/99

LICENSE NO.	LICENSE NAME	CITY, STATE	ORNL SCORE	STATUS
04-07326-02	Aerospace Corp.	Cape Canaveral, FL	2.4	Open
09-07428-02	Florida Power & Light	Ft. Pierce, FL	14.1	Closed by RII Action
09-11579-01	QC Labs	Hollywood, FL	2.1	Closed by RII Action
09-23043-01	TRW Space and Defense Sector	Cape Canaveral, FL	17.2	Recommended for closure by RII Action (note 4)
SUD-00263	University of Florida	Gainesville, FL	3.7	Closed by RII Action
10-09383-01	Dynatronics	Chamblee, GA	1.5	Open - Transferred to State of Georgia (with cooperation of State of Florida) & awaiting additional info. (note 1)
10-09823-01	Georgia Power	Mcdonough, GA	2.1	Open - Transferred to State of Georgia & awaiting response (note 1)
16-00380-03	Army Medical Research	Ft. Knox, KY	1.2	Closed by RII Action
16-17692-01	Mason & Hanger Silas Mason Co.	Lexington, KY	22.9	Closed (Transferred to Region III - Use in Middletown, IA at Army Ammo. Plant)
41-08165-01	Tennessee Valley Authority	Drakesboro, KY	44.8	Closed by RII Action (note 2)
CSA-05228	University of Louisville	Louisville, KY	2.6	Closed by RII Action
SNM-00413	University of Louisville	Louisville, KY	13.5	Closed by RII Action
SUD-00278	University of Kentucky	Lexington, KY	2.6	Closed by RII Action

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 06/30/99

LICENSE NO.	LICENSE NAME	CITY,STATE	ORNL SCORE	STATUS
23-10448-01	Superior Inspection Co.	MS	1.9	<b>Closed by RII Action</b>
SNM-00479	Mississippi State Univ.	State College, MS	13.5	<b>Closed by RII Action</b>
SUD-00158	Mississippi State Univ.	State College, MS	2.6	<b>Closed by RII Action</b>
CSA-05230 SNM-00396	University of Mississippi	University, MS	2.6	<b>Closed by RII Action</b>
SNM-00393	Research Triangle Inst.	Durham, NC	7.3	<b>Recommended for closure by State of North Carolina (note 4)(note 1)</b>
SNM-00698	Wake Forest College	Winston Salem, NC	13.5	<b>Closed by State of North Carolina (note 1)</b>
SUD-00395	North Carolina State	Raleigh, NC	2.6	<b>Closed by State of North Carolina (note 1)</b>
52-03569-05	Commonwealth of PR - Civil Defense Warehouse	Gurabo, PR	5.9	<b>Recommended for closure by RII Action (note 4)(note 2)</b>
52-09574-01	Puerto Rico Water Resources	San Juan, PR	1.6	Open
52-17662-01	Geotec Subsoil Exploration & Materials Lab.	Rio Piedras, PR (San Juan)	14.4	<b>Recommended for closure by RII Action (note 4)(note 2)</b>
52-18076-01	Chevron Chemical Co.	Guayama, PR	2.8	Open
SNM-01372	Hospital Pavia	Santurce, PR	66.9	<b>Recommended for closure by RII Action (note 4)(note 2)</b>
SNM-01944	Hospital Pavia	Santurce, PR	100.3	<b>Recommended for closure by RII Action (note 4)(note 2)</b>

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 06/30/99

LICENSE NO.	LICENSE NAME	CITY,STATE	ORNL SCORE	STATUS
CSA-03841	University of Puerto Rico	Mayaguez, PR	1.7	Open
SUD-00601	University of South Carolina	Columbia, SC	2.6	Closed by State of South Carolina (note 1)
19-08794-02	JM Huber	Etowah, TN	2.1	Closed by State of Tennessee (note 1)
41-08165-15	Tennessee Valley Authority	Johnsonville, TN	6.6	Recommended for closure by RII Action (note 4) (note 2)
41-08706-11	University of Tennessee	Memphis, TN	2.4	Closed by State of Tennessee (note 1)
SNM-00478	Memphis State University	Memphis, TN	13.5	Closed by State of Tennessee (note 1)
SNM-00484	Christian Brothers College	Memphis, TN	11.1	Closed by State of Tennessee (note 1)
SNM-00537	Oak Ridge Technical	Oak Ridge, TN	13.5	Closed by State of Tennessee (note 1)
SNM-00586	Tennessee Polytechnic Inst.	Cookeville, TN	13.5	Closed by State of Tennessee (note 1)
SNM-00671	University of Chattanooga	Chattanooga, TN	13.5	Closed by State of Tennessee (note 1)
SNM-00813	Southern Missionary College	Collegedale, TN	13.5	Closed by State of Tennessee (note 1)
SNM-00854	Vanderbilt University	Nashville, TN	13.5	Closed by State of Tennessee (note 1)
SUD-00561	University of Tennessee	Knoxville, TN	2.6	Closed by State of Tennessee (note 1)
45-00174-03	Robert McClelland	Danville, VA	22.0	Closed by RII Action
45-01972-02	Allied Chemical	Hopewell, VA	3.1	Closed by RII Action
45-06177-04	Stuart Lee Adelman, PhD	Virginia Beach, VA	16.4	Open (note 2)

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 06/30/99

LICENSE NO.	LICENSE NAME	CITY, STATE	ORNL SCORE	STATUS
45-09361-06	American Machine & Foundry	VA	5.9	Open
45-09469-01	Avtex Fibers	Front Royal, VA	5.9	Recommended for closure by RII Action (note 4)
45-11841-01	AT&T	Purcellville, VA	1.0	Closed by RII Action
45-11842-01	AT&T	Keswick, VA	1.0	Closed by RII Action
45-12222-01	AT&T	Buckingham County, VA	1.0	Closed by RII Action
45-12698-01	U.S. Public Health Service Hospital	Norfolk, VA	5.4	Open (note 2)
45-13195-01	AT&T	Moseley, VA	1.0	Closed by RII Action
45-13307-01	Bassett Furniture	Bassett, VA	8.1	Closed by RII Action
45-15353-01	James Hancock	Norfolk, VA	14.3	Closed by RII Action
45-17132-01	Army	VA	2.1	Recommended for closure by RII Action (note 4)
CSA-03518	Virginia Polytechnic Inst.	Blacksburg, VA	1.5	Closed by RII Action
GL-00337	Cottrell Electronics	VA	1.0	Recommended for closure by RII Action (note 4)
GL-00307	Epperson & Dull Co.	VA	1.0	Closed by RII Action
GL-00306	Jack Hartman & Co.	VA	1.0	Closed by RII Action
GL-00344	Powers Regulator Co.	VA	1.0	Closed by RII Action
GL-00345	Powers Regulator Co.	VA	1.0	Closed by RII Action

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 06/30/99

LICENSE NO.	LICENSE NAME	CITY,STATE	ORNL SCORE	STATUS
SNM-00138	Virginia Tech	Blacksburg, VA	5.1	<b>Recommended for closure by RII Action (note 4)(note 2)</b>
34-21191-01	Hunt Wireline Services	Parkersburg, WV	68.3	<b>Recommended for closure by RII Action (note 4)(note 2)</b>
47-00260-07	Union Carbide Corp	S. Charleston, WV	7.6	Open (note 2)
<b>47-01163-26</b>	<b>West Virginia University</b>	<b>Morgantown, WV</b>	<b>11.1</b>	<b>Closed by RII Action</b>
47-09638-05	Charleston General Hospital	Charleston, WV	3.5	<b>Recommended for closure by RII Action (note 4)</b>
47-13738-01	Mathiessen & Hegeler Zinc	Spelter, WV	1.3	<b>Recommended for closure by RII Action (note 4)</b>
47-17264-01	Geological Services Inc.	Huntington, WV	17.8	Open (note 2)
47-17373-01	State Construction Inc.	Ripley, WV	25.1	<b>Recommended for closure by RII Action (note 4) (note 2)</b>
47-17428-01	Allied Chemical	WV	1.9	<b>Recommended for closure by RII Action (note 4)</b>
47-17517-01	Preston Contractors	Kingwood, WV	1.9	<b>Recommended for closure by RII Action (note 4)</b>
47-19164-01	Green Construction Co.	Hinton / Green Sulphur Springs, WV	8.4	<b>Recommended for closure by RII Action (note 4)(note 2)</b>
47-21213-01	Acme Construction Co.	Skelton, WV	8.4	<b>Recommended for closure by RII Action (note 4)(note 2)</b>

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 06/30/99

LICENSE NO.	LICENSE NAME	CITY, STATE	ORNL SCORE	STATUS
SNM-00522	Dept. Of Interior	Morgantown, WV	18.4	<b>Recommended for closure by RII Action (note 4)</b>
SNM-01512	West Virginia Univ.	Morgantown, WV	57.5	Open (note 2)
<b>U.S.NAVY LICENSES</b>				
SNM-00232	Navy - Bureau of Ships	Mare Island, CA	23.0	<b>Transferred to the Navy for followup (note 3)</b>
SNM-00491	Naval Ordnance Test Station	China Lake, CA	18.0	<b>Transferred to the Navy for followup (note 3)</b>
SNM-00678	Naval Civil Engineering Lab.	Port Hueneme, CA	51.0	<b>Transferred to the Navy for followup (note 3)</b>
04-00364-06	Mare Island Naval Shipyard	Mare Island / Vallejo, CA	14.4	<b>Transferred to the Navy for followup (note 3)</b>
04-03141-01	Naval Weapons Station	Concord, CA	10.8	<b>Transferred to the Navy for followup (note 3)</b>
08-00038-54	Naval Electronics Systems Command	Washington, DC	166.1	<b>Recommended for closure by RII Action (note 4) (note 2)</b>
09-03267-01	Navy Mine Defense Lab	Panama City, FL	2.9	<b>Transferred to the Navy for followup (note 3)</b>
10-00287-04	Marine Corps Logistics Base	Albany, GA	11.9	<b>Transferred to the Navy for followup (note 3)</b>
04-04484-01	Navy - Subic Bay Repair Facility	Guam	11.0	<b>Transferred to the Navy for followup (note 3)</b>
19-00318-03	Naval Explosive Ordnance Tech Ctr	Indian Head, MD	11.3	<b>Transferred to the Navy for followup (note 3)</b>
37-00314-06	Philadelphia Naval Shipyard / Hospital	Philadelphia, PA	10.8	<b>Transferred to the Navy for followup (note 3)</b>
39-06126-01	Charleston Naval Shipyard	Charleston, SC	8.4	<b>Transferred to the Navy for followup (note 3)</b>

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 06/30/99

LICENSE NO.	LICENSE NAME	CITY, STATE	ORNL SCORE	STATUS
45-04052-02	Norfolk Naval Shipyard	Norfolk & Portsmouth, VA	22.5	<b>Transferred to the Navy for followup (note 3)</b>
45-07740-01	Navy	Yorktown, VA	1.6	<b>Transferred to the Navy for followup (note 3)</b>

**NOTES:**

(Current information printed in bold typeface)

1. Office of State Programs (OSP) issued transmittal SP-97-080 dated 11/14/97 indicating that NRC was going to turn over all terminated site files for sites located in Agreement States to the respective state. In addition, transmittal SP-98-025 dated 04/02/98 informed the Agreement States of possible funding for closing out terminated sites which are turned over. In May 1998, Region II notified the Agreement States of the requisite sites in their jurisdiction, and has requested each State to provide notification to Region II as sites are closed out.
2. Added to listing from Phase III of ORNL Terminated License Review Project (received by RII in Jan/Mar 1998).
3. File was discussed at Navy Radiation Safety Committee Meeting on February 22, 1999. **As of June 22, 1999, the Navy had completed its review of all transferred sites and drafted a report for Navy RSC concurrence.**
4. **File recommended for closure in this report - see Attachment 3 for closeout summary.**