

February 19, 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 Douglas M. Collins

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) Monthly Information Status Report
 (5) Tabular summary for all Region II sites

OFFICE	R11:DNMS	R11:DNMS	R11:DNMS					
SIGNATURE	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>					
NAME	BParker	TDecker	CHosey					
DATE	2/10/99	2/10/99	2/12/99	2/ /99	2/ /99	2/ /99	2/ /99	2/ /99
COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY

DOCUMENT NAME: G:\DNMS\DECOMM\01-99TS.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**

February 4, 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.

UCAR

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.

REGION II TERMINATED SITES LIST
SITE STATUS REPORT

February 4, 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

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

Assessment (cont'd)

license revealed no new information. That license focused 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.

REGION II TERMINATED SITES LIST
SITE STATUS REPORT

February 4, 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.

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	Fostoria Glass Company
SUC-00628	
4. 01-00126-13	Army-Redstone Arsenal*
5. 45-17819-01	U.S. Army (535th Engr Det.)*
6. 52-13137-01	Department of HEW*
7. C-03523	National Advisory Committee for Aeronautics*
8. C-04576	Hercules Powder Co.*
9. 10-00512-01	U.S. Public Health Service (HHS)**
10. 10-00512-04	U.S. Public Health Service (HHS)**
11. 41-08165-09	Tennessee Valley Authority**
12. 41-08165-17	Tennessee Valley Authority**
13. 45-03499-05	College of William & Mary**
14. 45-13733-01	Meloy Labs, Inc.**
15. 47-01163-20	West Virginia University**
16. 52-15968-01	TII Industries, Inc.**
17. SNM-01476	Tennessee Valley Authority**

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

** = Site status report for this site has not yet been developed. This is a file received under Phase 3 of the ORNL Terminated License Review Project, and has not yet been fully reviewed and assessed. A site status report will be included in future reports as warranted.

REGION II TERMINATED SITES LIST
SITE STATUS REPORT

February 4, 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.

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

February 4, 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 catalysts 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.

REGION II TERMINATED SITES LIST
SITE STATUS REPORT

February 4, 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 Moundsville 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.

STATUS REPORTS FOR SITES

RECOMMENDED FOR CLOSURE

(ORNL Score >5<300)

- | | | |
|----|-------------|---|
| 1. | 10-09653-01 | Luminous Processes Inc. |
| 2. | SNM-00430 | Radiochemistry, Inc. |
| 3. | C-03569 | Kingston Pencil Corporation |
| 4. | 10-12233-02 | Southern Space, Inc. |
| 5. | 04-07316-02 | Naval Energy & Environmental Support Activity |

(ORNL Sealed Source Score >1)

- | | | |
|-----|-------------|---------------------------------|
| 1. | 01-04151-01 | Ephriam E. Camp, M.D. |
| 2. | 09-11579-01 | Q.C. Laboratories, Inc. |
| 3. | 41-08165-01 | Tennessee Valley Authority |
| 4. | 23-10448-01 | Superior Inspection Co. |
| 5. | SNM-00698 | Wake Forest College |
| 6. | SUD-00395 | North Carolina State University |
| 7. | SUD-00601 | University of South Carolina |
| 8. | 19-08794-02 | JM Huber |
| 9. | 41-08706-11 | University of Tennessee |
| 10. | SNM-00478 | Memphis State University |
| 11. | SNM-00484 | Christian Brothers College |
| 12. | SNM-00537 | Oak Ridge Technical |
| 13. | SNM-00586 | Tennessee Polytechnic Inst. |
| 14. | SNM-00671 | University of Chattanooga |
| 15. | SNM-00813 | Southern Missionary College |
| 16. | SNM-00854 | Vanderbilt University |
| 17. | SUD-00561 | University of Tennessee |

REGION II TERMINATED SITES LIST
SITE STATUS REPORT

January 29, 1999

Docket No. _____

License No. 10-09653-01

Licensee Name: Luminous Processes Inc.

Site Name: _____

Site Address: _____

City: Athens State: GA Zip: _____

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

Status Summary:

ORNL Final Score: 53

Background

This was an AEC license issued in the 1950s-60s, authorizing the possession and use of various radioactive materials (i.e., tritium) for manufacturing luminous products. In 1996, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Georgia for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In e-mail dated August 17, 1998, the State of Georgia notified Region II of its efforts to followup on the subject terminated file. According to the State, Luminous Processes, Inc., NRC License No. 10-09653-01, was cleaned up in 1982 under an April 6, 1982, Cooperative Agreement between the USEPA and the State of Georgia. This site was one of the first Superfund projects in the country, and was released by the State of Georgia for unrestricted use. The site is currently occupied by retail establishments. The State indicated that it considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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

January 29, 1999

Docket No. _____

License No. SNM-00430

Licensee Name: Radiochemistry, Inc.

Site Name: _____

Site Address: _____

City: Louisville State: KY Zip: _____

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

Status Summary:

ORNL Final Score: 10

Background

This was an AEC license issued in the 1950s-60s authorizing possession and use of special nuclear material for industrial, research and/or analytical purposes. In 1994, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Kentucky for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In e-mails dated September 4 and 15, 1998, the State of Kentucky notified Region II of its efforts to followup on the subject terminated file. According to the State, no trace of the material was located. A visit to the site revealed there are no longer any buildings at the licensed location. In fact, the street address no longer exists. It appears there are now railroad tracks where the old location may have been. The State indicated that another license held by Radiochemistry, Inc., had transferred its material to another licensee in a different state.

Based on the findings, the State considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. It appears that the referenced byproduct material license (NRC License No. 16-05186-15) was transferred to the State of Kentucky when it went Agreement on March 26, 1962. Most likely, License No. SNM-00430 here was transferred at the same time to the State. 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

January 28, 1999

Docket No. _____

License No. C-03569

Licensee Name: Kingston Pencil Corp.

Site Name: _____

Site Address: _____

City: Chattanooga State: TN Zip: _____

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

Status Summary:

ORNL Final Score: 10

Background

Kingston Pencil was licensed in 1956-57 by the AEC to use uranium ore in the assembly and sale of its "atomic pencil". The pencils were a "gimmick" promoted nationwide primarily to the Offices of Civil Defense. The Civil Defense Offices considered the "atomic pencils" to be excellent tools for making citizens conscious of the efforts of their local Civil Defense agency. In 1996, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Tennessee for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In letter dated November 16, 1998 (see attached), the State of Tennessee notified Region II of its efforts to followup on the subject terminated file. The State visited the original Frazier Avenue address and discussed the matter with the current owner of the property, Mr. Will Turner. Mr. Turner indicated that he was unaware of the use of uranium ore or the "atomic pencils." He explained that the part of the building which housed the pencil company had burned in 1987, with the walls of the upper floor (where Kingston Pencil had been located) collapsing in on the basement. All that was left was the concrete slab and two walls, which were part of the basement and, according to Mr. Turner, had not been used by Kingston Pencil. The inspectors surveyed what portions of the building

Assessment (cont'd)

were left and found no evidence of contamination. They also surveyed outside of the building, giving attention to the storm water drain hidden in the high weeds of the vacant lot north of the concrete slab. No readings above background were detected. Mr. Turner told the state inspectors that Kingston Pencil moved its operations from the Frazier Avenue address to the Hixon Pike area of the city sometime in the late 60s or early 70s. The inspectors contacted the current company, Gold Bond Inc., at 5485 Hixon Pike and were told that the previous occupant had been Kingston Pencil. The inspectors met and discussed the matter with the current plant manager, Mr. Bill Pardue. Mr. Pardue explained that John Kingston built the facility that currently houses Gold Bond in 1967 and that Gold Bond was actually the brand name of the product line. The plant, which purchases pens, golf balls, golf tees, rulers, yardsticks, and paperweights in addition to pencils, markets the items with the buyer's name and logo imprinted on the item. According to Mr. Turner, John Kingston died back in the 1970s. The inspectors spoke with three employees who had worked with Mr. Kingston. None of the employees worked at the original Frazier Avenue location, and none of them were aware of the use of uranium ore in the fabrication of "atomic pencils." The inspectors surveyed areas inside and outside the Hixon Pike facility and identified no areas of concern or evidence of contamination.

In the November 16, 1998, letter, the State indicated that it considered the file closed within its jurisdiction. No evidence of contamination was identified at either known location of Kingston Pencil Corp.; however, the State was not able to determine the ultimate disposition of the 800 pounds of uranium ore that had remained at the facility after the license term ended because of the lack of first person knowledge. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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 3, 1999

Docket No. 030-04009

License No. 10-12233-02

Licensee Name: Southern Space, Inc.

Site Name: _____

Site Address: 820-822 Seventh Street AND 2001 Laigh Road

City: Portsmouth State: VA Zip: _____

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

Status Summary:

ORNL Final Score: 122

Background

This was an AEC License issued on February 23, 1968, authorizing any byproduct material (100 millicuries total) for collection and laundering of contaminated garments. The licensee's -01 license was for a similar nuclear laundry facility in Macon, Georgia. In 1998, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. The following was provided by Oak Ridge as the site descriptions and recommendations for followup:

First Site: 820-822 Seventh Street, Portsmouth, Virginia

The licensee provided nuclear laundry services to customers (primarily Norfolk Naval Shipyard). Waste water from the washers was sent to an underground storage tank for decay before release to the sewer system after sampling. Exhaust from the dryers was filtered, monitored, and released to the atmosphere. The main isotope possessed was Co-60. License information indicates that the licensee only received laundry shipments a few times annually. In January 1980, the licensee indicated that operations would be moved to 420 Virginia Avenue. The licensee also indicated that the Seventh Street facility was to be decontaminated and released back to the owner. However, there was no information on the cleanup or closeout of the Seventh Street facility. The site was

Background (cont'd)

still listed as an authorized place of use when the termination amendment was issued on May 18, 1981, and this license was apparently superseded by NRC License No. 39-19727-01. The superseding license was not available for review. Since the licensee intended to decontaminate the facility for unrestricted release, the evaluator conservatively chose to overturn the decision to eliminate the license due to the presence of a superseding license and perform a full site evaluation.

The ORNL site evaluation final score 61.8. The building operations score (39.5) accounted for about 64% of the final score. The score was initially high since the licensee was authorized any byproduct material which covers a large range of isotopes with varying hazards. Although there were some indications that Co-60 was the primary contaminant; the evaluator was conservative in the scoring of the materials. Although the waste generation score (4.7) had been lowered since the licensee's operations appeared limited, the lack of closeout information precluded reduction of the scores any further.

Second Site: 420 Virginia Avenue, Portsmouth, Virginia

The licensee indicated in letter dated January 22, 1980 that operations would be moved from the Seventh Street facility to this facility on Virginia Avenue. On March 12, 1980, an amendment was issued adding the Virginia Avenue site to the license. The information in the file on this site is limited. Operations were assumed by the evaluator to be similar to those at the Seventh Street facility. Three months later on June 20, 1980, the Virginia Avenue facility was removed from the license and another facility at Laigh Rd at Ballard Avenue was added. There was no information in the file as to whether operations had ever been started at the Virginia Avenue site. The letter requesting the change of address (June 5, 1980) was not found in the file. Therefore, the reason for the change is unknown. There is no closeout information for this site in the file.

The ORNL site evaluation final score for these facilities is 61.0. The materials handling score (31.3) accounted for over 51percent of the final score. The building operations score (29.7) accounted for the remaining portion of the final score. The score was initially high since the licensee was authorized any byproduct material which covers a large range of isotopes with varying hazards. Limited information on the licensee's activities resulted in conservative assumptions by the evaluator with regard to the materials score. The absence of closeout information meant that a reduction of the score was not possible.

Background (cont'd)

ORNL Recommendations:

- 1) The activities at the 820-822 Seventh Street facility requires some further review to determine if this site was listed on the superseding license 39-19727-01. If not, closeout procedures for the site should be reviewed and documentation placed in the file.
- 2) The 420 Virginia Avenue site requires some further review to determine if the licensee actually operated at this facility. If so, closeout documentation should be placed in the file.

Assessment

Review of documents located on microfiche through the NUDOCS system provided the following information:

Amendment No. 5 to NRC License No. 10-12233-02, dated June 20, 1980, added the "Laigh Road at Ballard Road" place of use. The "tie-down" letter dated January 22, 1980, referenced in License Condition 14 described that a new facility was planned to 420 Virginia Avenue, Portsmouth, Virginia; however, the June 5, 1980, tie-down letter, (which was not in the file and available to ORNL), indicated that "plans for that location fell through and no radioactive material was ever brought to the Virginia Avenue address." The June 5, 1980, letter further described the new location (Laigh Road at Ballard Road) and requested approval for a new facility at that location based the attachments to the letter and the previous January 22, 1980, letter. Therefore, Recommendation No. 2 noted above is no longer of concern since, based on license documents, no facility was ever established at the 420 Virginia Avenue address.

Amendment No. 6 to NRC License No. 10-12233-02, dated May 18, 1981, terminated the license concurrently with the issuance of NRC License No. 39-19727-01. The 39- license was issued due to a change of mailing address from Macon, Georgia, to Columbia, South Carolina. In letter dated June 26, 1981, the licensee indicated that it had recently moved its licensed activities to the new facility at 2001 Laigh Road, which was the street address of the location approved under the superseded 10- license. In that letter, the licensee also submitted a radiation survey report for the Seventh Street facility, and requested that it be released for unrestricted use and removed from the license as a place of use. Region II performed a closeout survey on July 22, 1981 at the Seventh Street facility, and identified some residual contamination levels above the approved decommissioning guidelines. The licensee performed additional remediation and Region II conducted more closeout surveys on August 24, and September 1, 1981. No more contamination above the approved guidelines was identified and the site was recommended to be released for unrestricted use. In November 1981, Amendment No. 1 to NRC License No 39-19727-01 was issued , removing the 822 Seventh Street place of use, leaving only the 2001 Laigh Road place of use.

Assessment (cont'd)

In February 1982, concern over contaminated soil near some underground tanks at the Seventh Street facility arose, and Region II addressed the issue with the licensee. It was determined that some soil contamination did exist, and Region II met with the licensee on April 14, 1982, to discuss the issue. The licensee committed to doing more sampling and remediation if necessary. On June 2, 1982, the licensee took samples at the Seventh Street facility, and split the samples with Region II. On July 15, 1982, the licensee submitted a report on the samples collected. In NRC letter dated August 27, 1982, Region II indicated that its analysis of the split samples generally agreed and concluded that the site was suitable for unrestricted release.

Since 1982, Southern Space, Inc., has changed ownership and names to Interstate Nuclear Services, Inc. (INS Corp.). In 1993, the 39- license was superseded by another NRC license due to a change of mailing address for INS Corp. On December 30, 1993, NRC License No. 20-25222-01 was issued concurrently with the termination of NRC License 39-19727-01 (Amendment No. 8). On the new 20- license (Massachusetts office), the only place of use continued to be 2001 Laigh Road in Portsmouth, Virginia. That facility continued to operate under that license until September 1997, when the licensee notified Region II that it was ceasing operations and initiating decommissioning of the facility. As of February 1999, the licensee is actively remediating the site under current decommissioning guidelines.

In February 1999, Region II reviewed the surveys and other documentation of the Seventh Street site and identified no concerns. Decommissioning of the facility appeared to be thorough, meeting all of the then-current release criteria. It was also determined that the Virginia Avenue site was never actively used for licensed activities; therefore, no surveys or other reviews were necessary to closeout that portion. Based on the information reviewed, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

REGION II TERMINATED SITES LIST
SITE STATUS REPORT

January 22, 1999

Docket No. 030-11951

License No. 04-07316-02

Licensee Name: Department of the Navy

Site Name: Naval Energy & Environmental Support Activities

Site Address: _____

City: Port Hueneme State: CA Zip: 93043

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

Status Summary:

ORNL Final Score: 34

Background

*The following was provided by Oak Ridge as the site description and recommendations:

Date Issued: April 23, 1976

Date Terminated: November 24, 1987

The licensee was authorized and possessed any byproduct material with atomic numbers 3-83, inclusive, Cs-137, H-3, Pu-238, Pu-239, and U-235 for calibration sources and counting of swipes and smears as well as crushed rocks from the Antarctic.

First Site: Temporary Storage Area, Naval Construction Battalion Center, Port Hueneme, California

This site is an area (corner of Lehman Rd. and Track 13 Rd.) located at the Naval Construction Battalion Center where crushed rock from the Antarctic was stored. The rock was contaminated with Sr-90 and Cs-137. After the crushed rock had been removed from the storage area sometime in 1981, Controls for Environmental Pollution, Inc. (CEP) conducted a final survey. Soil samples and direct radiation levels were taken and all results were below the release criteria. The NRC conducted a closeout inspection in January 1983 and collected soil, water, and sediment samples. All results were below the unrestricted release criteria.

Background (cont'd)

The ORNL site evaluation final score for this site is 17.2. The materials handling score (11.4) accounted for the majority of the final score with the outdoor operations score (5.7) comprising the remainder. The outdoor operations score was significantly reduced due to the presence of closeout surveys by the licensee's contractor and the NRC. Both surveys provided good coverage of the licensee's use of the site. The materials handling score is a little higher than necessary because the LEADIS system cannot separate individual authorized materials for each site. Therefore, the score was inflated even though Sr-90 and Cs-137 were the only materials used here.

Second Site: Building 835, Naval Construction Battalion Center, Port Hueneme, California

The licensee's main operations with radioactive materials were conducted in Building 835. The licensee conducted a closeout survey of this facility in 1984. All areas of use as indicated in earlier applications were surveyed and results showed no readings above the guidelines for release. In August 1984, the licensee indicated that the remaining inventory was removed from the storage room and the room surveyed. No readings above the guidelines for release were found. The NRC in note dated August 10, 1984, indicated that no confirmatory survey was needed.

The ORNL site evaluation final score for this site is 16.6. The materials handling score (14.3) accounted for over 86 percent of the final score. The building operations score (1.3) and the waste generation score (1.0) accounted for the remainder. Both the building operations and waste generation scores were decreased significantly due to the presence of cleanup and final survey information by the licensee. The licensee may not have possessed all the materials authorized on the license which means that the initial materials score may be higher than needed.

Recommendations:

- The Temporary Storage Area at the Naval Construction Battalion Center in Port Hueneme does not really require further review. Closeout surveys by the licensee and the NRC appear to be adequate for the licensee's use of materials.
- Building 835 at the Naval Construction Battalion Center in Port Hueneme does not really require further review although the licensee's closeout surveys may deserve another look to ensure that a NRC confirmatory survey was not necessary.

Assessment

In January 1999, Region II reviewed the licensee's 1984 closeout surveys contained in the file for both the Temporary Storage Area and Building 835 at the Naval Construction Battalion Center. No concerns were noted with these surveys. The Navy conducted thorough direct and contamination surveys of both areas, in accordance with approved release criteria contained in license amendments. NRC confirmatory surveys for the Temporary Storage Area were also reviewed and found to be adequate in that the NRC independently verified greater than 50 percent of the Navy's results. No NRC confirmatory survey of Building 835 was conducted; however, one did not appear warranted. The Navy reported no history of contamination in Building 835, and used current approved release criteria in conducting the release surveys in 1984. Discussions with Navy RASO personnel in January 1999 revealed that Building 835 was demolished a few years ago. Therefore, it is recommended that the status of this file be changed from "OPEN" to "CLOSED."

REGION II TERMINATED SITES LIST
SITE STATUS REPORT

January 29, 1999

Docket No. _____

License No. 01-04151-01

Licensee Name: Ephriam E. Camp, M.D.

Site Name: _____

Site Address: _____

City: Huntsville State: AL Zip: _____

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

Status Summary:

ORNL Final Score: 9.9

Background

This was an AEC license issued in the 1960s authorizing the possession and use of cobalt-60 sealed sources in a teletherapy unit for medical treatment 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, the file was transferred to the State of Alabama for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In e-mail dated June 22, 1998, the State of Alabama notified Region II of its efforts to followup on the subject terminated file. According to the State, Alabama Radioactive Material License No. 326 was issued to Radiology Associates, 905 Madison Avenue, Huntsville, Alabama on August 26, 1968. That license authorized the possession and use of 2400 curies (2 sources of 1200 Ci each - one for storage incidental to source transfer) of cobalt-60 in a Picker 6103C teletherapy unit. The authorized users were Doctors Camp, Bryson, Young, and Campbell. The sources were transferred to Gamma Industries in Baton Rouge, La. in 1976, and the license was terminated on June 15, 1976, by the State of Alabama by the issuance of Amendment Number 4 to License No. 326 at the request of the licensee. Based on its findings, the State considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. It appears most likely that License No. 01-03568-01 was transferred to the State of Alabama when it went Agreement on October 1, 1966, and the Alabama license referenced above superseded the AEC license. 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

January 22, 1999

Docket No. _____

License No. 09-11579-01

Licensee Name: Q.C. Laboratories. Inc.

Site Name: _____

Site Address: 2870 Stirling Road

City: Hollywood State: FL Zip: 33021

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

Status Summary:

ORNL Final Score: 2.13

Background

License No. 09-11579-01 was issued on March 17, 1966, authorizing possession of iridium-192 (no source greater than 100 curies) and cobalt-60 (source greater than 20 curies) for conducting radiography in NRC jurisdiction. The license expired in 1976 and was terminated on May 25, 1977, for failure to respond to information requests regarding license renewal.

Assessment

In a memo-to-file dated January 23, 1979, an NRC inspector documented a visit to the Stirling Road facility. The inspector discussed the licensing issue with the RSO, Mr. R. Dean Stickler. Mr. Stickler indicated that he had been unable to get an approved training program. The memo also indicated that the inspector determined while onsite that (1) all materials and devices under the -01 NRC license were transferred and currently being used under Florida License No. 329-1; and (2) that no work had been done in NRC jurisdiction since September 1975.

On July 5, 1979, Q.C. Labs applied for another NRC license to work in NRC jurisdiction, and on April 9, 1980, NRC License No. 09-11579-03 was granted, authorizing the possession and use of iridium-192 and cobalt-60 radiography sources. The -03 license was still active as noted during an NRC inspection in September 1998, and was not due to expire until December 31, 2001. Telephone/e-mail discussions with Florida Bureau of

QC Labs

Assessment (cont'd)

Radiation Control personnel in May 1998 confirmed that Q.C. Labs was still currently licensed and working in the State of Florida with iridium-192 and cobalt-60 sources. Based on (1) the information regarding material/device transfers to a Florida license provided in the 1979 memo-to-file; (2) the granting of the -03 license a short time later; and (3) the discussions with State of Florida regarding the status of Q.C. Labs, it is recommended that the status of this terminated file being changed from "OPEN" to "CLOSED."

REGION II TERMINATED SITES LIST
SITE STATUS REPORT

February 1, 1999

Docket No. 030-06380

License No. 41-08165-01

Licensee Name: Tennessee Valley Authority

Site Name: Paradise Steam Plant

Site Address: _____

City: Drakesboro State: KY Zip: _____

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

Status Summary:

ORNL Final Score: 44.8

Background

This was an AEC license issued on February 27, 1962, authorizing cesium-137 sealed sources for use in fixed gauges at a TVA coal-fired power plant in Drakesboro, KY. In 1980, curium-244 sealed sources (for ash monitors) were added, and californium-252 sealed sources were added in 1991. The Cf-252 sources were adequately disposed of (transferred to ORNL) in 1992. In 1993, TVA requested an amendment for a change of mailing address on the license, which prompted issuance of a new license. The former mailing address was in Chattanooga, TN, so the license was issued with the "41-" prefix; however, after the change of address in 1993 to Drakesboro, KY, the 41- license was terminated and a new license was issued with a "16-" prefix corresponding to Kentucky. New NRC License No. 16-25243-01 superseded License No. 41-08165-01. The "16-" license is still active and continues to authorize cesium-137 and curium-244 sealed sources (gauges).

Assessment

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

January 29, 1999

Docket No. _____

License No. 23-10448-01

Licensee Name: Superior Inspection Co.

Site Name: _____

Site Address: _____

City: _____ State: MS Zip: _____

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

Status Summary:

ORNL Final Score: 1.9

Background

This was an AEC license issued in the 1950s-60s authorizing the possession and use of cobalt-60 and iridium-192 sealed sources for industrial radiography. The AEC license was terminated in 1972. In 1995, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In April 1998, while preparing to transfer the file to the State of Mississippi for review/closure in accordance with NRC transmittal SP-97-080, the State provided sufficient information to close out the file without transferring it.

Assessment

In letter dated April 14, 1998, the State of Mississippi provided Region II with information pertaining to the subject terminated file. According to the State, Superior Testing Company also held Mississippi Radioactive Materials License No. MS-108-01. The license was issued on July 26, 1963, for possession and use of iridium-192 and cobalt-60 industrial radiography sources. The licensee sold all of their sources to General

Inspection, Inc., Wascom, Texas, in 1970, but kept their license active in case they started doing work again until it was terminated on October 24, 1979. Based on this, the State considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. It appears most likely that since the State of Mississippi went Agreement on July 1, 1962, the issuance of the Mississippi license in 1963 superseded the AEC license. 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 1, 1999

Docket No. _____

License No. SNM-00698

Licensee Name: Wake Forest College

Site Name: _____

Site Address: _____

City: Winston-Salem State: NC Zip: _____

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

Status Summary:

ORNL Final Score: 13.5

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 an academic environment. 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, the file was transferred to the State of North Carolina for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In e-mail dated January 6, 1999, the State of North Carolina notified Region II of its efforts to followup on the subject terminated file. According to the State, AEC Special Nuclear Materials License SNM-00698 became NC RAM license 034-0215-1 when North Carolina became an Agreement State on August 1, 1964. Amendment no. 24 to the NC license requested removal of a NUMEC-C Pu:Be Neutron Generator from the existing NC RAM license. Documentation submitted with this amendment request documents that this Pu:Be source was transferred to Los Alamos National Laboratory on October 7, 1993. Wake Forest received the acknowledgment of transfer letter, dated November 10, 1993, on November 22, 1993. Based on this information, the State considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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 1, 1999

Docket No. _____

License No. SUD-00395

Licensee Name: North Carolina State

Site Name: _____

Site Address: _____

City: Raleigh State: NC Zip: _____

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

Status Summary:

ORNL Final Score: 2.6

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 an academic environment. 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, the file was transferred to the State of North Carolina for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In e-mail and fax dated August 27, 1998, the State of North Carolina notified Region II of its efforts to followup on the subject terminated file. According to the State, AEC License No. SUD-00395 was superseded by North Carolina Radioactive Material License No. 92-276-2. In 1974, the NC license number was changed to 92-090-6. Sometime during the mid-to-late 1970s, this material was transferred to Catholic University in Washington, DC, from North Carolina State University. Based on this information, the State considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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

January 29, 1999

Docket No. 040-06806

License No. SUD-00601

Licensee Name: University of South Carolina

Site Name: _____

Site Address: Neutron Generator Building, USC

City: Columbia State: SC Zip: 29208

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

Status Summary:

ORNL Final Score: 2.6

Background

This was AEC license issued in 1962 authorizing the possession and use of uranium and thorium source material for research purposes. In 1994, 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 South 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.

Assessment

In e-mails dated May 14, 1998, the State of provided Region II with information pertaining to the subject terminated file. According to the State, the radioactive material in question listed under AEC License No. SUD-00601 was transferred from the University of South Carolina (SC Radioactive Material License No. 405) to Benedict College (SC Radioactive Material License No. 028) in 1981. This material was properly disposed of in 1997 through Bionomics, Inc. Based on this, the State considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. Additional information received by telephone from the State on May 14, 1998, clarified that AEC License No. SUD-00601 was in fact superseded by SC Radioactive Material License No. 405 in 1969-70 after South Carolina went Agreement on September 15, 1969. 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

January 26, 1999

Docket No. _____

License No. 19-08794-02

Licensee Name: J.M. Huber Corp.

Site Name: _____

Site Address: _____

City: Etowah State: TN Zip: _____

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

Status Summary:

ORNL Final Score: 2.1

Background

In 1962, J.M. Huber Corporation was issued License No. 19-08794-02 to an address in Havre de Grace, MD, authorizing the possession and use of radioactive material in Etowah, TN. The license was terminated in the early 1970s. In 1996, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Tennessee for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

The following information was provided by the State of Tennessee by letter dated November 16, 1998. The original license application was for a density gauge from Industrial Nucleonics. On September 5, 1963, J.M. Huber Corp. purchased a Model DH3 density gauge, with strontium-90 source no. S-816. The gauge was originally shipped to Etowah, TN. The gauge was later transferred to Havre de Grace, MD, in December 1964. The AEC subsequently, in accordance with letter dated February 17, 1965, changed the authorized place of possession to Fountain and Adams Streets, Havre de Grace, MD. On July 13, 1972, the gauge and source were shipped back to Industrial Nucleonics in Columbus, OH, for disposal. The gauge arrived at Industrial Nucleonics on July 19, 1972. The gauge was then sent to Richland, Washington, on July 12, 1982, where it was buried as radioactive waste. In the November 16, 1998, letter, the State of Tennessee indicated that it considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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

January 26, 1999

Docket No. _____

License No. 41-08706-11

Licensee Name: University of Tennessee College of Medicine

Site Name: _____

Site Address: _____

City: Memphis State: TN Zip: _____

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

Status Summary:

ORNL Final Score: 2.4

Background

The University of Tennessee College of Medicine was issued AEC License No. 41-08706-11 in the 1950s timeframe for possession and use of 160 curies of cobalt-60 sealed sources contained in a mouse irradiator. The license was terminated in approximately 1963. In 1996, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Tennessee for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In letter dated November 16, 1998, the State of Tennessee notified Region II of its efforts to followup on the subject terminated file. Discussions with the State and the University revealed no records pertaining to the license. All pertinent University records prior to 1977 were disposed of. The State noted that in its review of the file, a document dated May, 30, 1963, indicated disposition of the material held under AEC license number 41-08706-11 to Nuclear Engineering Company, Inc., Morehead, KY. In a letter to the State dated June 5, 1998, David Edwards, an RSO for the University, indicated that he had surveyed, both visually and with a GM survey meter, the room in the basement of the Van Fleet building which, according to the drawings in the file supplied to him by the State, housed the irradiator in the 1950s-60s. Neither the irradiator, nor any of the cobalt-60 sources were found. In the November 16, 1998, letter, the State indicated that it considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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

January 28, 1999

Docket No. _____

License No. SNM-00478

Licensee Name: Memphis State University

Site Name: _____

Site Address: _____

City: Memphis State: TN Zip: _____

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

Status Summary:

ORNL Final Score: 13.5

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 an academic environment. In 1996, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Tennessee for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In letter dated November 16, 1998, the State of Tennessee notified Region II of its efforts to followup on the subject terminated file. The State noted that Memphis State University (The University of Memphis), AEC License No. SNM-00478, was transferred to Tennessee jurisdiction on September 1, 1965, and a Tennessee Radioactive Material License was issued to the facility on May 15, 1967. Currently, the radioactive material remains licensed on Tennessee Radioactive Material License N-79042-L98. The State indicated that it considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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

January 28, 1999

Docket No. _____

License No. SNM-00484

Licensee Name: Christian Brothers College

Site Name: _____

Site Address: _____

City: Memphis State: TN Zip: _____

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

Status Summary:

ORNL Final Score: 11.1

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 an academic environment. In 1996, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Tennessee for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In letter dated November 16, 1998, the State of Tennessee notified Region II of its efforts to followup on the subject terminated file. The State noted that Christian Brothers College, AEC License No. SNM-00484 was transferred to Tennessee jurisdiction on September 1, 1965, and a Tennessee Radioactive Material License was issued to the facility on March 9, 1967. This license was terminated on September 25, 1995, based upon transfer of the licensed material to an authorized recipient. The State indicated that it considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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

January 28, 1999

Docket No. _____

License No. SNM-00537

Licensee Name: Oak Ridge Technical Enterprises Corp.

Site Name: _____

Site Address: _____

City: Oak Ridge State: TN Zip: _____

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

Status Summary:

ORNL Final Score: 13.5

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 1996, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Tennessee for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In letter dated November 16, 1998, the State of Tennessee notified Region II of its efforts to followup on the subject terminated file. The State noted that Oak Ridge Technical Enterprises Corporation, AEC License No. SNM-00537, was transferred to Tennessee jurisdiction on September 1, 1965, and a Tennessee Radioactive Material License was issued to the facility on May 12, 1966. This license was terminated February 7, 1975, based upon transfer of the licensed material to an authorized recipient. The State indicated that it considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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

January 28, 1999

Docket No. _____

License No. SNM-00586

Licensee Name: Tennessee Polytechnic Institute

Site Name: _____

Site Address: _____

City: Cookeville State: TN Zip: _____

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

Status Summary:

ORNL Final Score: 13.5

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 an academic environment. In 1996, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Tennessee for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In letter dated November 16, 1998, the State of Tennessee notified Region II of its efforts to followup on the subject terminated file. The State noted that Tennessee Technical (Polytechnical) University, AEC License No. SNM-00586, was transferred to Tennessee jurisdiction on September 1, 1965, and a Tennessee Radioactive Material License was issued to the facility on February 8, 1968. This radioactive material remains licensed on Tennessee Radioactive Material License N71003-B02. The State indicated that it considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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

January 28, 1999

Docket No. _____

License No. SNM-00671

Licensee Name: University of Chattanooga

Site Name: _____

Site Address: _____

City: Chattanooga State: TN Zip: _____

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

Status Summary:

ORNL Final Score: 13.5

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 an academic environment. In 1996, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Tennessee for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In letter dated November 16, 1998, the State of Tennessee notified Region II of its efforts to followup on the subject terminated file. The State noted that University of Chattanooga (now University of Tennessee at Chattanooga), AEC License No. SNM-00671, was transferred to Tennessee jurisdiction on September 1, 1965, and a Tennessee Radioactive Material License was issued to the facility on April 12, 1966. Currently, the radioactive material remains licensed on Tennessee Radioactive Material License N-33012-F99. The State indicated that it considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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

January 28, 1999

Docket No. _____

License No. SNM-00813

Licensee Name: Southern Missionary College

Site Name: _____

Site Address: _____

City: Collegedale State: TN Zip: _____

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

Status Summary:

ORNL Final Score: 13.5

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 an academic environment. In 1996, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Tennessee for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In letter dated November 16, 1998, the State of Tennessee notified Region II of its efforts to followup on the subject terminated file. The State noted that Southern Missionary College, AEC License No. SNM-00813, was transferred to Tennessee jurisdiction on September 1, 1965, and a Tennessee Radioactive Material License was issued to the facility on September 29, 1967. This license expired on September 30, 1970. The radioactive material authorized by this license was transferred to an authorized recipient on February 9, 1971. This activity was documented by the State on March 2, 1971. The State indicated that it considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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

January 28, 1999

Docket No. _____

License No. SNM-00854
(formerly SNM-00266)

Licensee Name: Vanderbilt University

Site Name: _____

Site Address: _____

City: Nashville State: TN Zip: _____

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

Status Summary:

ORNL Final Score: 13.5

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 an academic environment. In 1996, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Tennessee for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In letter dated November 16, 1998, the State of Tennessee notified Region II of its efforts to followup on the subject terminated file. The State noted that Vanderbilt University, AEC License No. SNM-00854, was transferred to Tennessee jurisdiction on September 1, 1965, and a Tennessee Radioactive Material License was issued to the facility on May 28, 1968. This radioactive material remains licensed on Tennessee Radioactive Material License N-19041-B00. The State indicated that it considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. 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

January 28, 1999

Docket No. _____

License No. SUD-00561
(formerly CSA-04787)

Licensee Name: University of Tennessee - Knoxville

Site Name: _____

Site Address: _____

City: Knoxville State: TN Zip: _____

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

Status Summary:

ORNL Final Score: 2.6

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 an academic environment. In 1996, the file was identified by ORNL as needing additional followup, and the file was forwarded to Region II for review/closure. In May 1998, the file was transferred to the State of Tennessee for review/closure in accordance with NRC transmittal SP-97-080.

Assessment

In letter dated November 16, 1998, the State of Tennessee notified Region II of its efforts to followup on the subject terminated file. The State noted that the University of Tennessee, AEC License No. SUD-00561, was transferred to Tennessee jurisdiction on September 1, 1965, and a Tennessee Radioactive Material License was issued to the facility on December 31, 1965. This radioactive material remains licensed on Tennessee Radioactive Material License S-47008-H99. The State indicated that it considered the file closed within its jurisdiction. Region II reviewed the documentation submitted by the State, and noted no concerns, concurring with the State's conclusions. Based on this information, 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 ¹ -Naval Res. Lab. ¹
5-300	53 ³	28	25 ^{4,5,6}	2 ² -Homer Laughlin China -Fostoria Glass
Total	62	34	28 ⁷	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 pending because they must address buried drums, not due to known contamination.**
- 3 - **One (1) site added in Jan 1999 - Navy file transferred from Region I. May be transferred to Navy for review/closure after initial review by Region II.**
- 4 - **Four (4) sites were transferred to Agreement States and Region II is recommending closure based on the States' responses for three (3) of the files. One (1) site remains open awaiting additional info from the State.**
- 5 - **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.**
- 6 - **See note 4; also, two (2) additional files are recommended for closure based on Region II action.**
- 7 - **The remaining open files (3 with score >300, and 19 with score <300) are being reviewed by Region II. [Of the 19, 2 are discussed in note 5; and 1 is discussed in note 3].**

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	68	32
Total	100 ¹	68 ^{2,3}	32

- 1 - Twenty-five (25) sites were added as part of Phase III of ORNL Terminated License Review Project (Jan/Mar 1998).
- 2- **Thirty-four (34) have been closed (includes two (2) that were transferred to other Regions). Twenty (20) sites were transferred to Agreement States, and fifteen (15) of those have been closed by their respective States; three (3) have been returned by State of Alabama; and two (2) remain open awaiting State response. Fourteen (14) are Navy sites, some of which, upon review by Region II, may be transferred to the Navy for review. The remainder, thirty (32), will be reviewed by Region II.**
- 34 - closed by Region II/ transferred to another Region**
+ 3 - recommended for closure by Region II action
+15 - Agreement State transfers recommended for closure
+ 2 - Agreement State transfers remaining open
+14 - Navy files to be reviewed/possibly transferred
68
+32 - Open files for Region II review
100 - TOTAL
- 3- **A total of eighteen (18) 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 02/04/99

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
U.S. NAVY LICENSES				
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.

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.
5. Added to listing from Phase III of ORNL Terminated License Review Project (received by RII in Jan/Mar 1998). As of February 4, 1999, review was ongoing. Survey documentation was adequate and no concerns were noted. Navy was assisting in review of the burial issue.
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.
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.

REGION II TERMINATED SITES, SCORES >5<300

As of 02/04/99

LICENSE NO.	LICENSEE NAME	CITY, STATE	ORNL SCORE	STATUS
01-00126-13	Army-Redstone Arsenal	Huntsville, AL	14	Open
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)
10-01937-15	Georgia Tech	Atlanta, GA	163	Deleted by NMSS
10-01125-01	University of Georgia	Athens, GA	11	Closed by RII action

REGION II TERMINATED SITES, SCORES >5<300 (As of 02/04/99)

LICENSE NO.	LICENSEE NAME	CITY, STATE	ORNL SCORE	STATUS
10-09653-01	Luminous Processes, Inc.	Athens, GA	53	Recommended for closure 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	Recommended for closure 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
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)

REGION II TERMINATED SITES, SCORES >5<300 (As of 02/04/99)

LICENSE NO.	LICENSEE NAME	CITY, STATE	ORNL SCORE	STATUS
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	Recommended for closure 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)
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	Recommended for closure 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	Open (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

REGION II TERMINATED SITES, SCORES >5<300 (As of 02/04/99)

LICENSE NO.	LICENSEE NAME	CITY, STATE	ORNL SCORE	STATUS
C-03523	National Advisory Committee for Aeronautics	Langley Field, VA	8	Open
SUB-00921	Atlantic Research Corp./Research and 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)
U.S. NAVY LICENSES				
04-02579-01	Naval Postgraduate School	Monterey, CA	19	Closed by RII Action

REGION II TERMINATED SITES, SCORES >5<300 (As of 02/04/99)

LICENSE NO.	LICENSEE NAME	CITY, STATE	ORNL SCORE	STATUS
04-07316-02	Naval Energy & Environmental Support Activity	Port Hueneme, CA	34	Recommended for closure by RII Action (note 5)
31-00718-02	New York Naval Shipyard Material Lab	Brooklyn, NY	7	Transferred to RII from RI for followup (note 6)

NOTES:

(Current information printed in bold typeface)

- 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.**
- 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 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.**
- 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.**

REGION II TERMINATED SITES, SCORES >5<300 (As of 02/04/99)

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. May be transferred to the Navy for review requesting a response, pending initial review by Region II.
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 02/04/99**

LICENSE NO.	LICENSE NAME	CITY, STATE	ORNL SCORE	STATUS
01-01905-01	AW Williams Inspection Co.	Mobile, AL	2.2	State of Alabama was unable to close - RII will followup (note 1)
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	State of Alabama was unable to close - RII will followup (note 1)
01-03568-02	Caldwell Foundry	Birmingham, AL	2.6	State of Alabama was unable to close - RII will followup (note 1)
01-04151-01	Ephriam Camp, MD	Huntsville, AL	9.9	Recommended for closure by State of Alabama (note 4) (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 02/04/99

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	Recommended for closure by RII Action (note 4)
09-23043-01	TRW Space and Defense Sector	Cape Canaveral, FL	17.2	Open (note 2)
SUD-00263	University of Florida	Gainesville, FL	3.7	Closed by RII Action
10-09383-01	Dynatomics	Chamblee, GA	1.5	Recommended for closure by State of Georgia (with cooperation of State of Florida) (note 4)(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	Recommended for closure by RII Action (note 4) (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

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 02/04/99

LICENSE NO.	LICENSE NAME	CITY, STATE	ORNL SCORE	STATUS
SUD-00278	University of Kentucky	Lexington, KY	2.6	Closed by RII Action
23-10448-01	Superior Inspection Co.	MS	1.9	Recommended for closure by RII Action (note 4)
SNM-00479	Mississippi State Univ.	State College, MS	13.5	Closed by RII Action
SUD-00158	Mississippi State Univ.	State College, MS	2.6	Closed by RII Action
CSA-05230 SNM-00396	University of Mississippi	University, MS	2.6	Closed by RII Action
SNM-00393	Research Triangle Inst.	Durham, NC	7.3	Open-Transferred to State of North Carolina & awaiting additional info. Initial response rec'd 05/15/98 (note 1)
SNM-00698	Wake Forest College	Winston Salem, NC	13.5	Recommended for closure by State of North Carolina (note 4) (note 1)
SUD-00395	North Carolina State	Raleigh, NC	2.6	Recommended for closure by State of North Carolina (note 4) (note 1)
52-03569-05	Commonwealth of PR - Civil Defense Warehouse	Gurabo, PR	5.9	Open (note 2)
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	Open (note 2)
52-18076-01	Chevron Chemical Co.	Guayama, PR	2.8	Open

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 02/04/99

LICENSE NO.	LICENSE NAME	CITY, STATE	ORNL SCORE	STATUS
SNM-01372	Hospital Pavia	Santurce, PR	66.9	Open (note 2)
SNM-01944	Hospital Pavia	Santurce, PR	100.3	Open (note 2)
CSA-03841	University of Puerto Rico	Mayaguez, PR	1.7	Open
SUD-00601	University of South Carolina	Columbia, SC	2.6	Recommended for closure by State of South Carolina (note 4) (note 1)
19-08794-02	JM Huber	Etowah, TN	2.1	Recommended for closure by State of Tennessee (note 4) (note 1)
41-08165-15	Tennessee Valley Authority	Johnsonville, TN	6.6	Open (note 2)
41-08706-11	University of Tennessee	Memphis, TN	2.4	Recommended for closure by State of Tennessee (note 4) (note 1)
SNM-00478	Memphis State University	Memphis, TN	13.5	Recommended for closure by State of Tennessee (note 4) (note 1)
SNM-00484	Christian Brothers College	Memphis, TN	11.1	Recommended for closure by State of Tennessee (note 4) (note 1)
SNM-00537	Oak Ridge Technical	Oak Ridge, TN	13.5	Recommended for closure by State of Tennessee (note 4) (note 1)
SNM-00586	Tennessee Polytechnic Inst.	Cookeville, TN	13.5	Recommended for closure by State of Tennessee (note 4) (note 1)

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 02/04/99

LICENSE NO.	LICENSE NAME	CITY, STATE	ORNL SCORE	STATUS
SNM-00671	University of Chattanooga	Chattanooga, TN	13.5	Recommended for closure by State of Tennessee (note 4) (note 1)
SNM-00813	Southern Missionary College	Collegedale, TN	13.5	Recommended for closure by State of Tennessee (note 4) (note 1)
SNM-00854	Vanderbilt University	Nashville, TN	13.5	Recommended for closure by State of Tennessee (note 4) (note 1)
SUD-00561	University of Tennessee	Knoxville, TN	2.6	Recommended for closure by State of Tennessee (note 4) (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)
45-09361-06	American Machine & Foundry	VA	5.9	Open
45-09469-01	Avtex Fibers	Front Royal, VA	5.9	Open
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

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 02/04/99

LICENSE NO.	LICENSE NAME	CITY, STATE	ORNL SCORE	STATUS
45-15353-01	James Hancock	Norfolk, VA	14.3	Closed by RII Action
45-17132-01	Army	VA	2.1	Open
CSA-03518	Virginia Polytechnic Inst.	Blacksburg, VA	1.5	Closed by RII Action
GL-00337	Cottrell Electronics	VA	1.0	Open
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
SNM-00138	Virginia Tech	Blacksburg, VA	5.1	Open (note 2)
34-21191-01	Hunt Wireline Services	Parkersburg, WV	68.3	Open (note 2)
47-00260-07	Union Carbide Corp	S. Charleston, WV	7.6	Open (note 2)
47-01163-26	West Virginia University	Morgantown, WV	11.1	Closed by RII Action
47-09638-05	Charleston General Hospital	Charleston, WV	3.5	Open
47-13738-01	Mathiessen & Hegeler Zinc	Spelter, WV	1.3	Open
47-17264-01	Geological Services Inc.	Huntington, WV	17.8	Open (note 2)
47-17373-01	State Construction Inc.	Ripley, WV	25.1	Open (note 2)
47-17428-01	Allied Chemical	WV	1.9	Open

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 02/04/99

LICENSE NO.	LICENSE NAME	CITY, STATE	ORNL SCORE	STATUS
47-17517-01	Preston Contractors	Kingwood, WV	1.9	Open
47-19164-01	Green Construction Co.	Hinton / Green Sulphur Springs, WV	8.4	Open (note 2)
47-21213-01	Acme Construction Co.	Skelton, WV	8.4	Open (note 2)
SNM-00522	Dept. Of Interior	Morgantown, WV	18.4	Open
SNM-01512	West Virginia Univ.	Morgantown, WV	57.5	Open (note 2)
U.S. NAVY LICENSES				
SNM-00232	Navy - Bureau of Ships	Mare Island, CA	23.0	Open (note 3)
SNM-00491	Naval Ordnance Test Station	China Lake, CA	18.0	Open (note 3)
SNM-00678	Naval Civil Engineering Lab.	Port Hueneme, CA	51.0	Open (note 3)
04-00364-06	Mare Island Naval Shipyard	Mare Island / Vallejo, CA	14.4	Open (note 2)(note 3)
04-03141-01	Naval Weapons Station	Concord, CA	10.8	Open (note 2)(note 3)
08-00038-54	Naval Electronics Systems Command	Washington, DC	166.1	Open (note 2)(note 3)
09-03267-01	Navy Mine Defense Lab	Panama City, FL	2.9	Open (note 3)
10-00287-04	Marine Corps Logistics Base	Albany, GA	11.9	Open (note 2)(note 3)
04-04484-01	Navy - Subic Bay Repair Facility	Guam	11.0	Open (note 3)

REGION II TERMINATED SITES - SEALED SOURCE FILES AS OF 02/04/99

LICENSE NO.	LICENSE NAME	CITY, STATE	ORNL SCORE	STATUS
19-00318-03	Naval Explosive Ordnance Tech Ctr	Indian Head, MD	11.3	Open (note 2)(note 3)
37-00314-06	Philadelphia Naval Shipyard / Hospital	Philadelphia, PA	10.8	Open (note 2)(note 3)
39-06126-01	Charleston Naval Shipyard	Charleston, SC	8.4	Open (note 2)(note 3)
45-04052-02	Norfolk Naval Shipyard	Norfolk & Portsmouth, VA	22.5	Open (note 2)(note 3)
45-07740-01	Navy	Yorktown, VA	1.6	Open (note 3)

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. May be transferred to the Navy for review requesting a response, pending initial review by Region II.
4. **File recommended for closure in this report - see Attachment 3 for closeout summary.**