



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

September 30, 2008

Docket No. 04001957

License No. SUB-0081 (terminated)

Glenn Bouscher
Director of Purchasing
The Homer Laughlin China Company
672 Fiesta Drive
Newell, WV 26050-1077

**SUBJECT: SURVEY RESULTS OF THE WASTE STORAGE AREA AT THE HOMER
LAUGHLIN CHINA CO., NEWELL, WV FACILITY**

Dear Mr. Bouscher:

This letter is in reference to the radiological survey data for the area where uranium waste drums were stored at your Newell, WV facility. This waste was removed from your facility on July 18, 2008, and shipped to the Waste Control Specialists (WCS) disposal facility in Andrews, Texas.

The Homer Laughlin China Co. (HLC) was previously licensed by the Atomic Energy Commission (AEC) under License No. SUB-0081 in 1959 for possession of source material (uranium). This license was terminated by the AEC in 1972. A routine review of terminated licenses completed in 1992 identified the HLC, Newell, WV facility as a site that required additional assessment for potential radiological contamination. Subsequent radiological surveys by your previous contractor confirmed the presence of residual licensed material and radiological contamination within an area of your facility.

Following identification of the residual licensed material, HLC and NRC have cooperated in the preparation, review, and approval of plans to remediate the residual contamination and properly dispose of this material and wastes from the cleanup activities. The HLC has completed the remediation efforts and sent the residual licensed material and wastes to an approved facility. An NRC inspector was on site at your facility on July 17, 2008, to observe the waste removal and radiological survey activities. The inspector confirmed that the source material waste was removed from the facility, and a reasonable effort was made to eliminate potential residual radioactive contamination.

On September 20, 2008, Mr. Corey DeWitt with your environmental consultant, Enercon Services, Inc., (Enercon) sent an electronic copy of the final radiological survey results for the area that was used to store the source material waste at your facility. Based on our review of the radiological survey data, NRC staff concludes that the facility meets the current 10 CFR 20 criteria for release for unrestricted use. The NRC's review of the survey report is documented in the enclosed Safety Evaluation Report.

The NRC has been informed by your consultant, Enercon, that the source material waste received at WCS from HLC will need to be re-profiled due to the presence of asbestos in the waste. Enercon stated that the waste will remain at WCS while the waste is re-profiled, and also

G. Bouscher

2

that WCS is permitted to accept asbestos. The waste will not be returned to the HLC facility. We will continue to work with you and Enercon, and request that you keep us informed regarding the status of the waste re-profiling and final disposal.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS) accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Please contact John Nicholson of my staff at (610) 337-5236, if you have any questions.

Thank you for your cooperation.

Sincerely,

Original signed by Raymond Lorson

Raymond K. Lorson, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

Enclosure: Safety Evaluation Report

cc w/encl:
R. Curtis, West Virginia

Distribution:

- R. Lorson, RI
- E. Cobey, RI
- J. Nicholson, RI
- M. Roberts, RI
- J. Kottan, RI
- D. Janda, RI
- D. Orlando, FSME/DWMEP
- K. McConnell, FSME/DWMEP

DOCUMENT NAME: G:\WordDocs\Current\Misc Letter\HLC facility release.doc

Tuesday, September 30, 2008 12:47:22 PMSUNSI Review Complete: JNicholson

After declaring this document "An Official Agency Record" it will be released to the Public.

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DNMS/RI	N	DNMS/RI	N	FSMG	N
NAME	JNicholson JM		RLorson RW		NOrlando	
DATE	9/30/08		9/30/08		Plan for per	

OFFICIAL RECORD COPY

email from
K mcConnell
06/ 9/30/08

SAFETY EVALUATION REPORT
RELEASE OF FACILITY
HOMER LAUGHLIN CHINA CO., NEWELL, WEST VIRGINIA
FORMER DOCKET NUMBER 040-01957

1.0 INTRODUCTION

The Homer Laughlin China Company (HLC) site is a 37-acre facility situated on the banks of the Ohio River in Newell, West Virginia, located in the state's northern panhandle. The site consists of a number of plant buildings and structures that are actively used in the production of commercial and retail tableware.

The Atomic Energy Commission (AEC) issued License No. SUB-81 in February 1959, for possession of 100,000 pounds of source material used as a glazing agent (up to 20% uranium) in the production of ceramic tableware. The glazed ceramic tableware products were exempt from NRC-licensing requirements. The license was terminated on March 29, 1972, based upon a February 28, 1972, letter from HLC stating that all remaining licensed materials had been returned to their supplier. A routine review of the terminated license file by our contractor, Oak Ridge National Laboratory, determined that there was no record of a licensee closeout survey or NRC confirmatory survey. Based on the previous possession limit and the results of this review, the NRC determined, and notified HLC that a further assessment of their facility for residual radioactivity was needed.

In 1994, approximately 500 pounds of depleted uranium oxide (U_3O_8) sand was discovered on the property. A contractor was hired to survey areas where licensed materials were used and stored, and to provide a radiological characterization of material in the facility. Several areas of fixed and removable contamination exceeding NRC guidelines for unrestricted use were identified during the characterization survey. The HLC committed to package and dispose of the bulk source material, limit access to contaminated areas, and submit a decommissioning plan (DP). The NRC approved the DP in January 1995, and HLC and its contractor initiated decommissioning of the facility.

The HLC did not complete decommissioning in some of the production areas because they were unable to remove fixed contamination exceeding NRC unrestricted release guidelines from surfaces of equipment and structures using conventional techniques. After consultation with the NRC, HLC developed a risk assessment to demonstrate that the residual fixed contamination would meet the NRC release criteria. At various times during the period from 1996 through 2004, HLC was requested to provide additional information to the NRC to refine the risk analysis to demonstrate that the facility would meet the 25 mrem/yr unrestricted release limit. In March 2005, the NRC accepted HLC's revised risk assessment.

The uranium oxide sand and the waste material from decommissioning activities remained on site until final disposal options could be assessed. The materials were packaged and were stored in a posted and infrequently-used area of the plant. After further characterization of the waste was performed and cost estimates for disposal were obtained, HLC arranged for disposal of the waste. The waste was removed in July 2008 and sent to Waste Control Specialists, Inc. (WCS) in Texas. The waste storage area was surveyed after the waste was removed. An NRC inspector observed the waste removal and radiological survey activities. The survey results were forwarded to the NRC in September 2008.

2.0 EVALUATION

In accordance with 10 CFR Part 40.42(k), the Commission will terminate a source material license when it determines that: (1) Source material has been properly disposed; (2) Reasonable effort has been made to eliminate residual contamination; (3) Radiological surveys, dose calculations, and other associated documentation show that the site is suitable for release in accordance with the criteria for decommissioning as stipulated in 10 CFR Part 20, Subpart E; and (4) Required records have been received. Although this site is no longer licensed, NRC staff applied the above criteria in its review of the survey results received in September 2008. The following is the staff's evaluation of this information.

2.1 Disposal of Source Material

An NRC inspector was on site in July 2008, when the source material waste was shipped off site from the Newell, WV facility to the WCS disposal facility in Andrews, TX. A representative from Enercon Services, Inc. (Enercon), HLC's radiological contractor, subsequently informed the NRC that the waste that had been shipped to WCS needed to be re-profiled due to the discovery of asbestos in the waste upon arrival at the WCS facility. However, the re-profiling is expected to be conducted at the WCS facility and there are no plans to return the waste to the HLC site.

2.2 Elimination of Residual Radioactive Contamination and Final Status Survey

HLC submitted a revised dose assessment to the NRC in October 2004 to demonstrate that the site would meet the criteria for release for unrestricted use. The NRC determined that this analysis would be acceptable, pending removal of all radioactive waste from the site and review of the final survey results from the waste storage area.

The final status survey results for the waste storage area were sent to the NRC via an electronic mail from Enercon on September 20, 2008. An Enercon representative conducted alpha and beta scans in the area where the waste had been stored. In addition, the Enercon representative took smear samples on the storage area floor that were analyzed for removable alpha contamination. NRC staff reviewed the survey results and performed independent, bounding calculations that demonstrated that the dose rate to a worker from potential residual activity would be less than the 25 millirem/year unrestricted release criterion of 10 CFR Part 20, Subpart E. Therefore, the staff concluded that a reasonable effort had been made by HLC to eliminate residual radioactive contamination at the HLC facility, and also that an adequate record has been provided.

3.0 STATE CONSULTATION

The State of West Virginia was informed of the NRC action regarding the disposal of HLC wastes. The State is on the distribution list for the letter transmitting this Safety Evaluation Report.

4.0 ENVIRONMENTAL CONSIDERATIONS

The NRC determined that since the removal of packaged waste was not a major action, an environmental assessment was not required for approval of release of the HLC waste storage area for unrestricted use.

5.0 CONCLUSIONS

NRC staff conducted numerous site visits and inspections at the HLC facility and conducted in-office reviews of documents submitted by HLC. The staff concluded that decommissioning activities have been properly and safely conducted at the HLC facility. Review of the survey results for the waste storage area indicated that potential residual contamination levels of radioactive material on building surfaces do not exceed the NRC criteria for release for unrestricted use. A conservative, bounding dose estimate by NRC staff showed that the annual dose from potential residual radioactivity was less than 15 millirem, which is less than the current NRC criteria of 25 millirem/year for release for unrestricted use. The HLC is expected to transmit the appropriate records to the NRC documenting final disposition of the re-profiled waste at the disposal facility. Decommissioning activities on site are considered to be complete and the site meets the criteria for release for unrestricted use.

Principal Contributors: J. Nicholson, M. Roberts, Decommissioning Branch, DNMS, Region I

Date: September 29, 2008