[7590-01-P]

NUCLEAR REGULATORY COMMISSION

DOCKET NO. 040-01957 (TERMINATED)

NOTICE OF COMPLETION OF REMEDIATION AT

THE HOMER LAUGHLIN CHINA CO. SITE IN NEWELL, WEST VIRGINIA

AGENCY: United States Nuclear Regulatory Commission (NRC).

ACTION: Notice of Completion of Remediation at the Homer Laughlin China Co. site in Newell, West Virginia.

FOR FURTHER INFORMATION CONTACT: John Nicholson, Health Physicist, Decommissioning Branch, Division of Nuclear Materials Safety, Region I, 475 Allendale Road, King of Prussia, PA 19406; telephone 610-337-5236; fax number 610-337-5269 or by email: john.nicholson@nrc.gov.

BACKGROUND:

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

In 1959, the NRC's Predecessor agency, the Atomic Energy Commission (AEC) issued License No. SUB-81 authorizing possession at the site of 100,000 pounds of source material for use as a glazing agent (up to 20% uranium) in the production of ceramic tableware. The finished glazed ceramic tableware products were exempt from licensing requirements. The AEC license was terminated in 1972, based upon an HLC letter stating that all remaining licensed materials had been returned to their supplier. A routine review of the terminated license file by

the Oak Ridge National Laboratory (ORNL), under contract to the NRC, later determined that there was no record of a licensee closeout survey or any confirmatory survey. Based on the terminated license's possession limit and the results of the ORNL review, the NRC determined that a further assessment of HLC's site for residual radioactivity was needed.

Thus, in 1994, it was found that approximately 500 pounds of depleted uranium oxide (U_3O_8) sand was still on HLC's site. A contractor was hired to survey areas where licensed materials were used and stored, and to provide a radiological characterization of the site. Several additional 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 1995, and HLC and its contractor began implementing the DP.

DISCUSSION:

The HLC did not complete decommissioning in some of the production areas because it was unable to remove fixed contamination (which exceeded NRC unrestricted release guidelines) from surfaces of equipment and structures using conventional remediation techniques. After consultation with 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 1996-2004, HLC provided additional information to NRC refining its computer-based risk analysis, to demonstrate that the regulatory standard of 25 mrem/yr for unrestricted release (established in 10 CFR Part 20, Subpart E in 1997) would be met.

In March 2005, the NRC accepted HLC's revised risk assessment (ML043090164). 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

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. 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 standard.

CONCLUSION:

Based on the above, the NRC staff finds that a reasonable effort had been made by HLC to eliminate residual radioactive contamination at its site and that NRC regulatory requirements are satisfied. The NRC thus concludes that: (1) radioactive material above release limits has been properly disposed; (2) reasonable effort has been made to eliminate residual radioactive contamination; and (3) surveys and associated documentation, demonstrate that the site meets the requirements for unrestricted release set forth in 10 CFR Part 20, Subpart E.

FURTHER INFORMATION: Additional relevant information is available for public inspection at the Commission's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agency-wide Documents Access and Management System's (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site,

http://www.nrc.gov/reading-rm/adams.html (ML043090164, ML072430077, ML072950154, ML073541298, ML080320468, ML082820580). Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209, 301-415-4737 or by e-mail to *pdr@nrc.gov*. The PDR reproduction contractor will copy documents for a fee.

Dated King of Prussia, Pennsylvania this 3rd day of November 2008.

For The Nuclear Regulatory Commission

/RA/

Raymond Lorson, Chief
Decommissioning Branch
Division of Nuclear Materials Safety
Region I