Kaiser Aluminum
Corporate Environmental Affairs

March 18, 2005

Document Center
United States Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Sir or Madam:

Attached is information about the Kaiser Aluminum & Chemical Corporation's Thorium Project in Tulsa, Oklahoma.

Included are a letter to neighbors and a fact sheet. A similar letter with the same attachment is being sent to Kaiser's employees and retirees in Tulsa. A copy also will be placed in the public repository at the Nathan Hale Library in Tulsa.

Sincerely,

Bill Vinzant

J. W. (Bill) Vinzant, P.E.
Manager, Corporate Environmental Affairs

enclosures

cc: Mr. John T. Buckley
Mr. Dwight Chamberlain
Ms. Pamela Bishop

NMSS01

9141 Interline Avenue, Suite 1A Baton Rouge, LA 70809-1957

Kaiser Aluminum
Corporate Environmental Affairs

March 22, 2005

Dear Neighbor:

Kaiser Aluminum & Chemical Corporation is continuing work to address soil that contains thorium on its property at 7311 East 41st Street in Tulsa. This work is being performed in cooperation with the Nuclear Regulatory Commission (NRC), in accordance with Kaiser's Decommissioning Plan approved in 2003. My purpose in writing is to provide you with an update on the progress of our work to complete this project.

The current work, Phase II, is the final remedy, designed to result in unrestricted use of the property in the future. In 2002, we completed Phase I, which included removing thorium-containing material from adjacent properties and stockpiling that material on Kaiser's property. At the end of Phase I work, the NRC released the adjacent properties for unrestricted use.

Current work includes excavating, testing and analyzing soil, and transporting above-criteria material to an approved disposal facility by railcar. The stockpiled material from Phase I is being addressed in the same manner. Excavated areas will be backfilled with soil, and vegetation will be planted. We are working diligently to complete this work by the end of 2005.

Our goal is to conduct this work safely and in a manner that protects human health and the environment. We do not anticipate any impact on our neighbors. However, this is a large construction project. You will continue to see workers and heavy equipment on site. Also, this summer you likely will notice more truck traffic, as we bring in clean fill dirt to replace soil removed and transported by railcar.

Attached is a fact sheet to provide you with more information. The detailed work plans are available in the Reference Department of the Nathan Hale Library, 6038 East 23rd Street. If at any time you have questions or concerns, please contact our Community Relations Coordinator, Roberta Fowlkes, toll free, at (800) 576-0032.

Sincerely,

Bill Vinzant

J. W. (Bill) Vinzant, P.E.
Manager, Corporate Environmental Affairs

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9141 Interline Avenue, Suite 1A Baton Rouge, LA 70809-1957

Fact Sheet

March 2005

Work continues to address thorium residue at Kaiser Aluminum's Tulsa facility

Kaiser Aluminum & Chemical Corporation, working with the U. S. Nuclear Regulatory Commission (NRC), is conducting the final phase of work to address soil containing low levels of thorium at its plant site located at 7311 East 41st Street in Tulsa. Work is expected to be complete at the end of 2005. According to the NRC, the site does not pose an immediate health hazard.

Background

Kaiser bought the Tulsa plant from Standard Magnesium Corporation in 1964. Scrap magnesium from aircraft components manufacturing was processed there on an intermittent basis between 1958 and 1970. The scrap contained up to 4 percent thorium, a naturally occurring radioactive element present in trace quantities in the Earth's crust. The recycled scrap magnesium was mixed with pure magnesium at Tulsa to make anodes used to prevent corrosion in tanks and pipelines.

Regulations of the NRC and its predecessor, the Atomic Energy Commission (AEC), authorize products with low concentrations of thorium to be distributed to the public. Because the plant was processing a material containing thorium, this activity was conducted under a license issued by the AEC. The residual slag from this process contained thorium and was disposed of in an area immediately behind the plant under the terms of the AEC license and regulations. Kaiser discontinued processing the scrap in 1970, and the AEC license was terminated—at Kaiser's request—in 1971.

Investigative Activities

An NRC inspector toured the Tulsa facility in November 1993 as part of a routine process of revisiting previously licensed sites and found radioactivity exceeding "background" levels in the area behind the plant. The conclusion of the NRC inspector was that there was no immediate health hazard, and this finding has been confirmed in every periodic NRC inspection since then as well as by a health physicist retained by Kaiser. The area is fenced and posted with warning signs. Moreover, the radiation levels are so low that if a person were to stand on the spot of maximum radioactivity concentration for an hour, the dose would be similar to that received when flying two hours on a commercial airplane.

To evaluate conditions and determine a remediation policy, Kaiser retained environmental consultants who collected and analyzed soil and water samples on the plant site and on adjoining properties. The results of these investigations showed soil containing thorium in areas on Kaiser property and in areas which are now adjacent to the Kaiser property along the eastern boundary–areas which belonged to Standard Magnesium during licensed operations. No contamination was found more than 120 feet beyond Kaiser's current property line.

Project Status

Phase I

Work to address contamination at the adjacent property (Phase I) was completed in 2001. This included removing soil and other material containing thorium from adjacent property and moving it to Kaiser's property to be addressed as part of the second phase of work. The NRC issued its final approval in May 2002, and the adjacent property now meets NRC standards for unrestricted use. The property may be used for any purpose allowed by local zoning, without restriction.

Phase II

Work began last year for Phase II, the final remedy to address thorium contamination at Kaiser's former plant site, including the material that was moved to the site from neighboring property. The work plan is designed to conduct the cleanup so that the property will meet NRC criteria for unrestricted use. The affected plant site has been divided into two areas: The "pond parcel" includes the retention pond/reserve pond area and a paved area of the property, totaling approximately 10 acres. The second area is the approximately 3.5-acre former "operational area" of the facility. Most of the structures in this area have been demolished, and only the concrete slabs remain.

At the pond parcel, material is separated according to the concentration of thorium, based on cleanup standards developed in coordination with the NRC. Material with thorium levels that could result in a dose above the NRC cleanup standard are segregated and disposed off site at a permitted facility. Material with thorium concentrations of acceptable levels will be used as backfill in the pond parcel. A layer of clean soil will be placed over the fill and graded in a manner to direct drainage away from the site. Then, grass will be sown and other vegetation will be planted to protect from erosion.

At the former operational area, affected materials beneath the remaining concrete floor slabs are being removed, and some land areas are being excavated. As with the pond parcel, excavated material with thorium that could result in a dose above the NRC cleanup standard is loaded onto railcars on Kaiser's property and disposed off site at a permitted facility. Excavated material with thorium concentrations of acceptable levels is taken to the pond parcel and used as backfill. Clean soil from an off-site location will be used to backfill the excavations in the former operational area. The area will be graded and vegetation will be planted to minimize soil erosion and promote proper drainage.

Heavy construction equipment such as excavators, backhoes, bulldozers, dump trucks and water trucks are used to perform the work. Neighbors may expect to see increased truck traffic during the summer, as clean soil to be used as backfill is brought to the site. As part of the health and safety plan for the work, air monitoring equipment is placed around the perimeter of the site, as well as in work areas, to assure dust does not exceed acceptable levels. Low volume water sprays are used to contain dust on site. The work is expected to be complete late in 2005.

For More Information

Kaiser is committed to conducting a thorough, effective cleanup of the site, and to communicating with the public about the work. A copy of the plan of work, referred to as the "Decommissioning Plan" and the "Decommissioning Plan Addendum," is available for public inspection in the Reference Department of the Nathan Hale Library, 6038 East 23rd Street, Tulsa. Also, a Community Information Line for questions or comments about the project is available, toll free, at (800) 576-0032.

For more information, call toll free (800) 576-0032