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SUMMARY OF ACTIVITIES REGARDING MONAZITE SAND AND TH-232 CONTAMINATION
WITH TRANSMITTAL NS GREAT LAKES IL
9/7/2006
DEPARTMENT OF THE NAVY

36A



DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND DETACHMENT
RADIOLOGICAL AFFAIRS SUPPORT OFFICE (RASO)
NWS P.O. DRAWER 260
YORKTOWN, VA 23691-0260

IN REPLY REFER TO:

5104
Ser 03B/427
7 September 2006

Mr. Kenneth G. O'Brien, Branch Chief
U.S. Nuclear Regulatory Commission, Region III
Department of Nuclear Materials Safety
2443 Warrensville Road Suite 210
Lisle, IL 60532-4352

Mr. O'Brien:

SUBJECT: NAVAL STATION GREAT LAKES MONAZITE SAND STORAGE AREA
AND AREAS OF INTEREST IN THE PUBLIC-PRIVATE VENTURE
(PPV) FORRESTAL VILLAGE AREA

On August 3, 2006, Mr. Gene Bonano and Mr. James Cameron of your office requested a summary of Navy activities regarding possible residual monazite sand at Naval Station, Great Lakes. The summary was to include: actions for the Monazite Sand Storage Area (MSSA) taken since the contractor demobilization in 2005, planned course of action to complete decommissioning of the MSSA, and discussion of the elevated levels of Th-232 found in the Public-Private Venture (PPV) Forrestal Village area. In compliance with your request, enclosure (1) provides information regarding these projects.

If you have any question regarding this letter, my point of contact at NAVSEADET RASO is Mrs. Patricia Haworth at (757) 887-7644.

Sincerely,

J. P. ALDRIDGE
LCDR, MSC, USN
Officer in Charge

Encl:

- (1) Summary of Activities Regarding Monazite Sand and Th-232 Contamination at Naval Station, Great Lakes

Copy to:

NAVFAC Midwest (Mark Schultz Environmental Director)

NAVFAC Midwest (Blayne Kirsch Manager Environmental Services)

NAVFAC Southeast (Anthony Robinson)

AMSJM-SF (Dave Horton)

**SUMMARY OF ACTIVITIES REGARDING
MONAZITE SAND AND TH-232 CONTAMINATION
AT NAVAL STATION, GREAT LAKES**

Status of Monazite Sand Storage Area Decommissioning Activities

Navy has assumed full responsibility for the clean-up of this formerly licensed site, even though the Navy was not the licensee, and has spent over three million dollars during the last five years on four phases of decommissioning efforts. It was anticipated that the fourth phase of decommissioning activities, which ended in September 2005, would complete decommissioning efforts. However, elevated levels of Th-232 from Monazite sand remain in four locations: north, east, and southeast of Tank H; north, west, and south under the footprint of Building 3214; west of Building 3215; and at depth in an area leading into the area east of Tank H that was released in 2000. In view of these findings, Navy has determined that it is necessary to re-evaluate the status of the site and the nature and extent of the contamination.

Status of Public-Private Venture (PPV) - Forrestal Village Area

In October 2005, MACTEC Engineering and Consulting, Inc., Chicago, Illinois first notified the Navy that elevated radiation measurements had been identified during a due-diligence survey conducted to support a public-private venture (PPV) between the Navy and Forest City, IL. Known also as Forrestal Village, the PPV area includes the following areas with elevated measurements: Vermont Court on both sides of Building 4240; east of Skokie Ditch and north of the existing ball field; on both sides of Great Lakes Drive north of Wyoming; storm drain outfall into Skokie Ditch north of the Forrestal Village fence; and west of Skokie Ditch and south of Wyoming between Buildings 4233 and 4234. Analysis of laboratory samples taken at each site has identified Th-232 as the radionuclide of concern.

Planned Course of Action

The Navy has contracted Cabrera Services, through the U.S. Army Low-Level Radioactive Waste Disposal Office (AMSJM-SF), Rock Island, Illinois to assess the extent of contamination at the Monazite Sand Storage Area and PPV (Forrestal Village) area. The kick-off meeting for this contract was held on August 28, 2006 at Naval Station, Great Lakes. Representatives from Naval Station Great Lakes, Naval Facilities Engineering Command (NAVFAC) Midwest Division, NAVFAC Atlantic Division, NAVFAC Southeast Division, AMSJM-SF, and Naval Sea Systems Command

Detachment, Radiological Affairs Support Office (NAVSEADET RASO) met with Cabrera Services to discuss the current status of the contaminated areas and strategy for the assessment.

The contract calls for Cabrera Services to review all historical records pertaining to the storage and removal of monazite sand at Naval Station Great Lakes and determine the outer most boundary of the monazite sand area and extent of contamination with the boundary. This information combined with radiological data from previous phases of the decommissioning activities will allow Cabrera Services to determine data gaps and propose a method to characterize and remediate the area. Additionally, Cabrera Services will be assessing the extent of contamination at the PPV Area. Cabrera Services will prepare a site conceptual model report, which will include recommendations for further actions for Navy by November 30, 2006.

After receipt of the Cabrera Services report, Navy will determine the best course of action regarding additional decommissioning activities. These actions will be presented to NRC Region III in January 07. If required, on-site decommissioning activities will restart in early April 2007.