

April 18, 1997

Docket No. 040-08980  
License No. SMB-1541  
Mail Control No. 122539

Anthony J. Thompson, Esquire  
Shaw, Pittman, Potts & Trowbridge  
2300 N Street NW  
Washington, DC 20037-1128

**SUBJECT: MEETING SUMMARY**

Dear Mr. Thompson:

This letter documents the meeting concerning the Heritage Minerals, Inc. (HMI), site, Manchester Township, New Jersey at our office in King of Prussia, Pennsylvania on April 10, 1997. The purpose of the meeting was to discuss HMI's final status survey plans, and to review the status of your decommissioning schedule, which was outlined in your letter to NRC dated December 30, 1996. Enclosed is the meeting summary and list of individuals who participated in the meeting.

During the meeting HMI provided a copy of your Export License application dated April 7, 1997, for transfer of the monazite sand located at the HMI site to the L&T Minerals Sand and Separation Plant in Selangor, Malaysia. While your application is being processed, it is our understanding that concurrent actions to develop a final survey plan will occur, such that decommissioning activities could be completed this year.

Because the licensed portion of the site is impacted by enhanced background from non-NRC licensed material, much of the discussion focused on defining the boundaries of the NRC affected areas and the difficulty in making exposure rate measurements. In this regard, you agreed to provide NRC a copy of the Mine Tailing Radiological Assessment Plan that should be completed within a couple of weeks and to prepare a final status survey plan that would be submitted for NRC review. We request that HMI's final status survey and updated cost estimate for completion of the final survey be submitted to NRC within thirty days of receipt of this letter for our review and inclusion in the HMI license renewal.

Further, we agreed to participate in a licensing visit at the HMI site to verify your proposed affected area boundaries. Based on your decommissioning schedule, we anticipate this licensing visit would occur by mid-June 1997.

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If you have any questions concerning this matter, please contact Marie Miller at (610) 337-5205. Your cooperation with us is appreciated.

Sincerely,  
Original Signed by:  
Mark Roberts

 Ronald R. Bellamy, Chief  
Decommissioning & Laboratory Branch  
Division of Nuclear Materials Safety

Enclosure: NRC Meeting Summary

Docket No.: 040-08980  
License No.: SMB-1541

cc w/enclosure:  
John Lord  
Heritage Minerals, Inc.  
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Robert Stearn, Chief  
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## MEETING SUMMARY

On April 10, 1997, representatives of Heritage Minerals, Inc. (HMI), New Jersey Department of Environmental Protection and NRC staff met at the Region I Office in King of Prussia, Pennsylvania. A representative from NRC Division of Waste Management also participated by telephone. An attendance list is attached. The purpose of the meeting was to discuss the licensee's final status survey plans for the NRC licensed portions of the site, which include two buildings and a monazite sand pile comprising approximately one-half acre within a former mining and processing area of 150 acres to be remediated in accordance with State regulations.

Heritage submitted an NRC Export License application for transfer of the monazite sand to L&T Minerals Sand and Separation Plant. The stated use is for further processing of the material for rare earths and thorium for non-nuclear end uses. A copy of the application request dated April 7, 1997, was provided to the meeting participants. NRC acknowledged this action as the start of the decommissioning schedule that estimates completion by the Fall of 1997.

The Heritage representatives discussed a former survey of the dry and wet mill that was conducted shortly after the facility ceased operations in 1990. Although the radiological safety status of the facility was reviewed, NRC had not sufficiently reviewed the survey data nor had a record of the mill surveys for release of the buildings. NRC stated that a final status survey for the wet and dry mill and the office buildings should meet the survey guidance contained in NUREG/CR-5849, Manual for Conducting Radiological Surveys in Support of License Termination.

With respect to the outdoor areas, Heritage representatives discussed the ongoing site characterization activities of the entire 150 acres including the monazite pile. The characterization plan, namely, the Mine Tailing Radiological Assessment Plan (MTRAP) included 850 samples with a depth profile on average of 15 feet across a 100 foot grid. Decisions on the depth of the contamination were primarily based on visual determinations. Background determinations were also made, with preliminary estimates of 2 to 3 picocuries/gram total thorium and uranium and a gamma exposure background of 12 to 15 microRoentgen/hour. NRC requested a copy of the MTRAP and final characterization when it is completed for evaluation in conjunction with the HMI's final status survey plan and the defined NRC affected areas.

The survey methods and sampling criteria to demonstrate meeting the soil concentration criteria of 10 picocuries per gram total thorium and uranium and the exposure criteria of 10  $\mu$ R/hr above the background were also discussed. There was some discussion of sampling at locations with results greater than twice background determined from 100% scanning of the defined affected area. Because of the enhanced and varied background radiation (on average approximately 80  $\mu$ R/hr) the minimum detectable activity would need to be developed to meet the exposure criteria of 10  $\mu$ R/hr above a natural background of approximately 13  $\mu$ R/hr.

During the meeting, NJDEP raised the concern that delineation of the NRC and State affected areas would be difficult. The NJDEP representative suggested that the monazite sand pile should be promptly removed, but that NRC not terminate the license until the total site was

remediated.<sup>1</sup> Our discussions on this point centered on the NRC legal position that we do not regulate the combined tailing piles. Therefore, we would be unable to require an NRC licensee to retain an NRC license without NRC regulated material. However, we would solicit NJDEP comments on HMI's final status survey plan and the defined boundaries for the affected areas. Further, NJDEP acknowledged that the State-required remediation would most likely be more complicated and take significantly more time to resolve. The NJDEP technical revisions to their proposed release criteria were expected by late May 1997.

NRC agreed to conduct a licensing visit at the HMI site to examine the defined affected area boundaries. HMI representatives agreed to submit a survey plan based on NUREG/CR-5849 for the buildings and that their outdoor survey plan would include their options for meeting both the exposure and concentration release limits in an area of enhanced background.

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<sup>1</sup>NJDEP continues to object to the NRC's regulatory position that the combined tailings piles, which exceed current NRC release criteria for unrestricted use, are not subject to NRC regulation.

**ATTACHMENT 1**

**Attendance at Heritage Minerals - NRC Meeting on April 10, 1997**

**Heritage Minerals, Inc.**

**Anthony J. Thompson, Esquire  
John Lord, Manager  
Max El Tawil, Consultant**

**USNRC, Region I**

**Ronald R. Bellamy, Chief, Site Decommissioning and Lab Branch  
Marie Miller, Senior Health Physicist, DLB  
James Kottan, Health Physics Manager**

**USNRC, Headquarters (Participation by Telephone)**

**David Fauver, Senior Project Manager, Division of Waste Management**

**NJ Department of Environmental Protection**

**Robert Stearn, Chief, Bureau of Environmental Radiation  
Thomas Amidon, Staff Member, Bureau of Environmental Radiation**