

Radiological and Non-Radiological Spaces Characterization Survey Report Addendum

This is the first revision issued for the Radiological and Non-Radiological Spaces Characterization Survey Report

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The following is a listing of pages to be removed and inserted:

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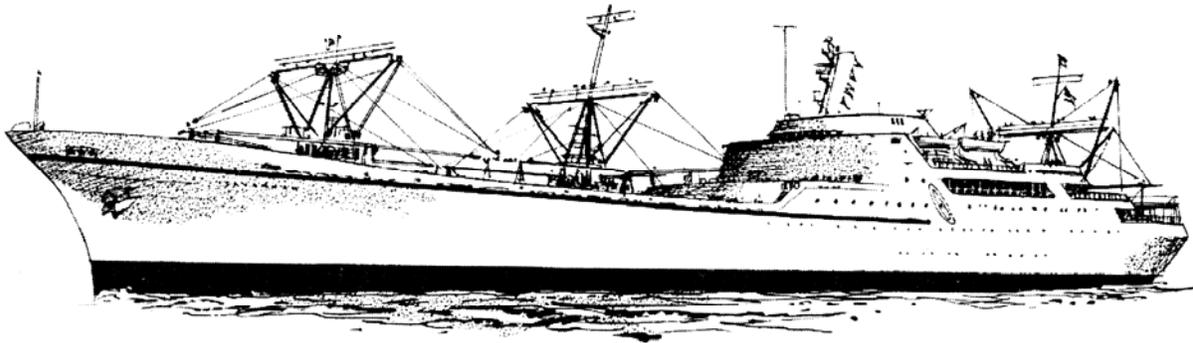
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Nuclear Ship SAVANNAH

Radiological and Non-Radiological Spaces Characterization Survey Report

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Prepared for

**U.S. Department of Transportation
Maritime Administration
Office of Ship Operations**

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respectively. Tables 1 and 2 in Appendix M also summarize the analytical results obtained from paint chips collected on the ship and analyzed at the AMA laboratory for quality control purposes. Selected photographs of the lead-based sampling effort throughout the ship are presented in Appendix N.

6B.3 Liquids

As part of the ship characterization effort, liquids that remain in the radiological and non-radiological areas of the boat were sampled for characterization. Samples were collected using a dedicated plastic bellows-type sampler and placed in laboratory supplied bottleware. Once collected, the samples were sealed in zip-lock bags and placed in a cooler with ice. Liquids collected from the radiological areas of the boat were analyzed by Froehling & Robertson (F&R), a Virginia-certified environmental laboratory located in Richmond. Liquid samples collected from the non-radiological areas of the boat were documented and placed in a cooler that remained on the ship for analysis at a later time, if desired.

Samples collected from the non-radiological areas of the ship include hydraulic oils from the winches and steering gear, and lubricating oils from the boat emergency generator. Liquid samples collected from the radiological area included water and oil from the sump in the lower Secondary Containment area, hydraulic oil from the Primary Containment area, and lube oil and hydraulic oil collected from the ship stabilizer compartments. These samples were analyzed to assist in the characterization of these materials for the purpose of future disposal options by a decommissioning contractor.

Oils were analyzed for total halogen content and PCBs, and the water sample was analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. Analytical results for the liquid samples collected from the radiological areas of the boat were analyzed, and the results are included in Appendix O. Halogens and PCBs were detected in the Secondary Containment sump oil, Primary Containment hydraulic oil (oil from control rod drive mechanisms), and Stabilizer Room hydraulic oil. Metals were detected in the Secondary Containment sump water. It should be noted that volumetric estimates of the liquid samples could not be obtained, as the size of the liquid containment for the various liquids was not discernable.