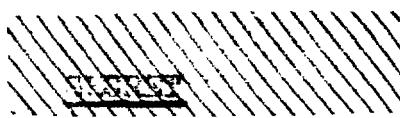


STAFF, COMMANDER JEP-1  
USS HAVEN AN-12  
c/o Fleet Post Office  
San Francisco, California

JUN 8 1965  
For the Atomic Energy Commission

ROBERT L. WARREN  
Chief, Decontamination Branch  
13 August 1948.



MEMORANDUM TO COMMANDER TASK GROUP 1.2.

140649

1. Reference is made to a conference 12 August on the Fall River concerning the possibilities of operating the engine and machinery of the capital ships in the target group, in order to pump them out or make a thorough study of their internal structures. Pertinent is the fact that many ships have gamma radiation intensities low enough in appropriate places to permit occupancy for considerable lengths of time. This would seem to permit such operation or study. This is not the case.

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2. The widespread presence of an alpha emitter has been demonstrated in the target area. It accompanies the gamma and beta emitters everywhere in a definite proportion and the presence of beta emitters in even moderate intensities is an indication that it is present in dangerous if not lethal amounts. Every contaminated place as evidenced by the gamma or beta radiation on any surface of any vessel may be in fact the residence of many lethal doses of this alpha emitter. This alpha emitter is the most poisonous chemical known. It can only be measured with very precise equipment which is not available and cannot be made available.

3. The following facts have been observed in these vessels by Rad Safe:

- (a) The ventilating systems and inner compartments are heavily contaminated in most of these ships. This is visibly evident in some.
- (b) The dry and apparently undisturbed dust in inner compartments below decks, in undamaged spaces not obviously contaminated nor easy of access to the outside, has been found to be heavily contaminated with fission products, in large amounts.
- (c) Extensive cleaning or decontamination of painted surfaces even to the extent of removal of the paint while greatly reducing them (by 90% in some cases) has failed so far to remove all the fission products (as tested for gamma

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and beta radiation). Furthermore etching and dissolving of cleaned metal surface with acid as performed on the U.S.S. New York has shown that the content of the alpha emitter was increased by the decontamination in the residual contamination by a factor of two.

- (d) The initial contamination of surfaces was so great that reduction on the deck and other surfaces of 90% or more still leaves large and dangerous quantities of fission and alpha emitters scattered about.
- (e) Wooden surfaces because of their grain are known to absorb these materials deep within their substance and therefore cannot be cleaned without removal of the surface.
- (f) Contamination of personnel, clothing, hands, and even food can be demonstrated readily in every ship in the JTF-1 in increasing amounts day by day.

4. The following uncontested conclusions follow:

- (a) The use of blowers for either exhaust or intake ventilation or any action that will cause dust to move about is a potentially dangerous inhalation hazard to all personnel involved.
- (b) The use of personnel for cleaning without proper indoctrination and special complex protective equipment, particularly in the inside of ships is exceedingly dangerous. This hazard is not obvious and varies very greatly from place to place. Without special equipment and the properly trained personnel to measure each site for alpha emitters (and very few qualified personnel are available in the United States) no one can say any place is safe for any given length of time.
- (c) Therefore no further work must be permitted in the contaminated target ships without well organized and adequate safeguards including special equipment for personnel

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and proper radiological equipment.

- (d) Present use of Task Force personnel should therefore be restricted to the recovery of instruments and limited surveys within the limits of the short periods set and consistent with safety. This period will include shutting up target snips which have been opened, installing pumping gear where possible, and preparations for towing.
- (e) It is believed that such short time contact as has occurred so far and will occur in the stabilization period now ensuing will not result in any injury to the personnel involved. It is expected that further contact will involve rapidly decreasing numbers of personnel.

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