



U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Southwest Fisheries Center Honolulu Laboratory  
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May 26, 1988 F/SWC2

MEMORANDUM FOR: F/SWC2 - William G. Gilmartin  
FROM: F/SWC2 - George H. Balazs  
SUBJECT: Environmental contaminants at French Frigate Shoals

During my recent visit to French Frigate Shoals, I conducted a brief radiological survey on Tern and East Islands using the Heath kit "Radiation Alert Monitor 4" previously purchased for our work at Johnston Island. No levels above normal background radiation were found on East Island. However, on Tern Island a site was identified in the abandoned Loran transmitter building with a level 4-5 times above background (approximately 100 counts per minute). The source was a broken vacuum tube in one of the power amplifier units. As you may know, this equipment was smashed by vandals shortly after the Loran station was shut down in 1978. Numerous vacuum tubes and other components of the radio equipment were broken. In view of this preliminary finding, and the potential hazard of radioactive particles being inhaled, I feel it would be prudent to place the transmitter room "off limits" to our personnel. Ideally, a comprehensive survey by radiation safety experts should be done in the room and accepted clean-up procedures implemented as needed.

During our initial briefing about Tern Island by the Refuge Manager Ken Niethammer, it was stated that asbestos fibers had been found in the facility's fresh water supply. Instructions were given to only drink water from the filtered tap. The level of asbestos contamination was not known, nor was it entirely clear whether or not the filter system removed 100% of the fibers. Also, it was not clear if any risk was involved in showering with asbestos contaminated water. In view of these apparent unknowns germane to the health safety of our personnel, I recommend that steps be taken to obtain reliable, professional answers. A good starting point would be to obtain copies of the most recent chemical analyses conducted on the Tern Island water. Presumably this is being carried out by the Fish and Wildlife service on a routine monitoring basis.

The question of possible PCB contamination from transformer oil in Tern Island's soil and ground-water lenses, first raised by Rick Vetter, has apparently still not been answered by the Fish and Wildlife Service.

