



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-4005**

August 07, 2006

Pa'ina Hawaii, LLC  
ATTN: Michael Kohn  
President  
P.O. Box 30542  
Honolulu, Hawaii 96820

**SUBJECT: REQUEST FOR ADDITIONAL INFORMATION IN SUPPORT OF LICENSE APPLICATION DATED JUNE 23, 2005**

On January 25, 2006, we sent you a facsimile with a request for additional information to support your license application. You responded with additional information in a letter dated March 9, 2006. Based on your responses provided in the letter dated March 9, 2006, the staff understands that you propose to use the following construction sequence for the irradiator pool. The initial construction activity will involve installation of sheet piling that will completely surround the pool excavation. Excavation activities will then occur down to a depth that will be determined at the time of the excavation. The majority of the excavation will take place underwater, as the water table will be approximately 8.5 feet from the surface of the excavation. Once the required excavation depth has been reached, tremie concrete will be placed on the excavation bottom to provide a seal against the influx of water from below. After the tremie concrete has sufficiently hardened, the water will be pumped from the excavation. The pool will then be suspended over the excavation and concrete will be placed for the pool foundation. After the pool foundation has sufficiently hardened, water will be placed into the pool for the final leak test of the stainless steel liner. After the liner leak test is complete, concrete will be placed in the pool annulus and around the pool exterior.

We have no other questions on the other information provided in your March 9, 2006, letter. However, we have the following additional questions relative to the construction methods stated in your letter and outlined above:

1. How will the excavation contractor/geotechnical engineer determine the soil characteristics and how will the depth of the excavation be determined? How would the excavation contractor/geotechnical engineer determine if the bottom of the excavation is founded on a very loose soil layer similar to the one depicted at a depth of 15 feet on soil boring number B-5? If the bottom of the excavation was founded on a very loose layer, what impact would this have on the potential settlement of the pool or potential soil liquefaction during a seismic event?
2. How will the excavation contractor/geotechnical engineer determine the required depth of the tremie concrete necessary to be placed beneath the pool foundation, to resist the hydrostatic uplift forces after the excavation is pumped dry?

3. **How will the concrete be placed and consolidated under the pool bottom to ensure that voids are minimized?**

Please respond to this letter within 30 days of receipt. If you have any questions regarding this letter, please call me at (817) 860-8252. When responding to this letter, please include your docket number and mail control number located below. Thank you.

Sincerely,

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Anthony D. Gaines, Senior Health Physicist  
Nuclear Materials Inspection Branch

Docket: 030-36974  
Mail Control No. 470601