Information Sheet – USS HOUSTON

On 17 July 2008, about one gallon of water spilled into a drydock at Pearl Harbor when a temporarily installed mechanical fitting came loose. The water, which potentially contained extremely low levels of radioactivity, spilled on the leg of a HOUSTON sailor in the dry dock. Although at the time of weepage the water was not in contact the reactor, the water would have previously been in contact with the reactor.

Trained Shipyard personnel quickly responded to the situation and the spill was contained on site. Using sensitive instruments, no detectible radioactive contamination was found on the sailor or in the dry dock. In accordance with standard practice, the U.S. Navy called the State of Hawaii, Department of Health to inform them of the spill.

While HOUSTON was in dry dock, formal valve leak tests were completed and the results identified on 24 July 2008 that one of the shut valves was weeping at a small rate above the Naval Nuclear Propulsion Program's stringent specification.

The valve weepage was so small that it was below the limit of detection by personnel on the ship and was indistinguishable by the ship from no leakage at all. The Navy is not disclosing the specific valve design. The design of the Navy's nuclear propulsion plants is classified in order to protect the details of the technology.

From July 24 through July 31st the Navy conducted an assessment to determine the extent and duration of the weepage.

Extensive analysis by a government nuclear laboratory, Knolls Atomic Power Laboratory (KAPL), was required to determine that there was very small weepage past this valve above its tight specification while the HOUSTON was operating. Such an extremely small weepage rate is not expected to be identified by normal ship systems, which would reliably detect larger leakage from the propulsion plant to protect the reactor plant, the safety of the crew, the safety of the public, marine life, and the environment.

On 31 July 2008, the KAPL and PHNSY&IMF determined that the shut valve may have been weeping at a small rate and may have released an extremely small amount of radioactivity into Pearl Harbor, Guam, and Sasebo during HOUSTON's most recent visits to these ports.

The Navy provided this information to the Governments of Japan and Guam on 31 July 2008 EDT (1 August 2008 JST).

In accordance with standard practice, the State of Hawaii was notified of the updated estimate at approximately 1230 HST.

In accordance with standard practice, the Government of Japan was notified at approximately 1130 JST, 1 August 2008 (31 July 2008, 2230 EDT).

In accordance with standard practice, the Government of Guam was notified at approximately 1530 HST (2130 EDT).

Since 31 July 2008, the Navy has been working to determine the extent and duration of the leak beyond these three most recent port visits. It has been determined that the valve has been steadily leaking a small amount above the stringent design specification from June 2006 until HOUSTON was placed in dry dock in July 2008. This weepage was so small that it was below the limit of detection by personnel on the ship and was indistinguishable by the ship from no leakage at all. Extensive computational analysis by a government nuclear laboratory, Knolls Atomic Power Laboratory (KAPL), was required to determine that there was very small weepage past this valve above its tight specification. The list of port visits from June 2006 to present, and the estimated amount of radioactivity released into the environment for each of these port visits is attached.

At no time was there a risk to the reactor plant, the safety of the crew, the safety of the public, marine life, or the environment as a result of these port visits. The amount of radioactivity involved is extremely small. The amount of naturally occurring radioactivity in the seawater of a harbor is millions of times greater than the radioactivity released during this event. The total amount of radioactivity released into the environment as a result of all the attached foreign port visits is less than the amount of radioactivity contained in a common household smoke detector.

Additionally, the amount of radioactivity released by the HOUSTON valve is extremely small when compared to the amount of radioactivity routinely discharged by regulated civilian nuclear power plants. The total amount released by the HOUSTON valve weepage as a result of all of the foreign and domestic port visits is less than that released in one day of normal operation of a U.S. civilian nuclear power plant.

The Navy routinely performs environmental monitoring in ports frequently visited by U.S. nuclear powered warships. The results of that monitoring are forwarded to appropriate government officials for review. Monitoring has confirmed that U.S. nuclear-powered warship operations have had no discernable affect on the environment.

Oversight and review of HOUSTON operations has been subject to the exact same stringent oversight and review as the rest of the nuclear submarine fleet that is conducted to ensure high standards of operation are maintained. Prior to July 17th, there was no additional review.

USS HOUSTON In Port Periods in Japan from June 2006 to Present:

Sasebo, Japan: In port on 16 July 2006, 2 February 2007, 13 to 18 April 2007, 27 March to 2 April 2008, and 6 April 2008. The cumulative amount of radioactivity released to the environment as a result of these port visits is less than 0.340 micro curies (13 Kilobecquerels).

Yokosuka, Japan: In port on 25 January 2007 to 29 January 2007. The cumulative amount of radioactivity released to the environment as a result of this port visits is less than 0.095 micro curies (3.5 Kilobecquerels)..

Okinawa, Japan: In port on 17 March 2007, 23 March 2007, 7 through 11 December 2007, 15 December 2007, and 12 March 2008. The cumulative amount of radioactivity released to the environment as a result of these port visits is less than 0.170 micro curies (6.3 Kilobecquerels)..