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LOG OF MEETING
DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT: Pool Alarm Demonstration

DATE OF MEETING: April 15, 2009

PLACE OF MEETING: Hampton Inn, Silver Spring, MD. and U.S. CPSC Bethesda, MD.

LOG ENTRY SOURCE: M. Kumagai, ESME ***5/21/2009***

COMMISSION ATTENDEES: Jonathan Midgett (ESHF), Troy Whitfield (ESME), Sandra Inkster (HS), Stefanie Marques (HS), Caroleene Paul (ESME), Kathleen Reilly (EXPA), Mark Kumagai (ESME)

NON-COMMISSION ATTENDEES: Robert Hoenig, William Roberts

SUMMARY OF MEETING:

Mr. William Roberts and Mr. Robert Hoenig of AquaSonus met with the CPSC staff at the Hampton Inn, Silver Spring, Maryland. AquaSonus set up an alarm at the far end of the pool as shown in figure 1. A CPR mannequin was used to simulate a child falling into the pool. The mannequin was slid into the pool at various points as shown in figure 2. Within 5 seconds the pool alarm sounded.

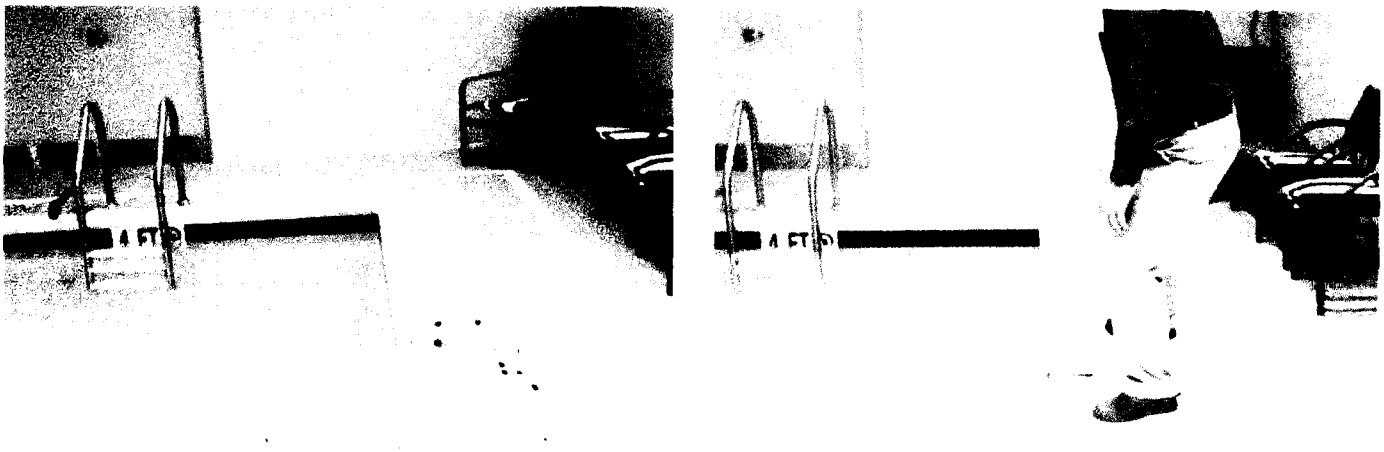

Figure 1. AquaSonus Pool Alarm Demonstration, Hampton Inn, Silver Spring MD. April 15, 2009

Figure 2. Simulation using the Rescue Timmy CPR Mannequin – (18 lbm, 3 year old)

After the demonstration, the CPSC staff and AquaSonus continued the meeting at the CPSC headquarters in Bethesda, MD. Mr. Roberts and Mr. Hoenig made a presentation (attachment A) discussing the technology and operation of the AquaSonus system. Mr. Hoenig compared the AquaSonus alarm with existing pool alarms available to consumers. Mr. Hoenig explained that the AquaSonus alarm is a passive sonar device that can detect the sound of a child falling into the pool. The technology used for most pool alarms on the market today is to detect the wake formed by the child falling into the water. These devices are dependent on the time required for the wake to travel from the child to the alarm. Mr. Hoenig's tests showed that existing wave detection pool alarms can take over 20 seconds to alarm for a submersion 10 meters away, while the AquaSonus passive sonar alarmed within 5 seconds.

The AquaSonus microprocessor/software can distinguish between the acoustic signature of a child falling into the pool and environmental noise such as wind, rain, pool filter systems, and suction cleaning devices. This acoustic signature is used to prevent false/nuisance alarming. CPSC staff discussed the importance of a submersion alarm to react quickly, without false or nuisance alarming. Mr. Roberts estimates that the AquaSonus pool alarm could retail at $500-600 each; however, at the present time, there are no plans for production. Mr. Roberts also left a DVD of the system for the CPSC staff to review.