

U.S. NUCLEAR REGULATORY COMMISSION		Date: 01/11/2006
TELEPHONE CONVERSATION RECORD		Time: 2:30 pm
Mail Control or Report No(s). 137893	License No(s). 45-23645-01NA	Docket No(s). 03029462
Name of Licensee:	Department of the Navy	
Name of Participant(s):	CAPT Lino Fragoso, PhD, RSO, Orysia Masnyk Bailey	
Telephone No.	703.602.5365	
Subject: (NOTE: This will be used as the Documents Title in ADAMS)	Amendment Request to use Electronic Dosimeters as Alarming Ratemeters	
Summary:	Information to support Electronic Dosimeters ability to meet requirements of 10 CFR 34.47	
Action Required:	Additional information for amendment request dated 10/13/05, # 137893	
Document Availability:	<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available <input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Non-Sensitive Copyright <input type="checkbox"/> Sensitive <input type="checkbox"/> Sensitive Copyright <input type="checkbox"/> Immediate Release <input checked="" type="checkbox"/> Normal Release <input type="checkbox"/> Delay Release Date	
Prepared & SISP Review Completed By:	/ RA / Orysia Masnyk Bailey	Date: 01/11/2006

On January 11, 2006, Orysia Masnyk Bailey discussed the Navy's license amendment request dated October 13, 2005, Case Control No. 137893 with CAPT Fragoso, the RSO for the Navy's Master Materials License. The Navy has requested the authorization to use the rate alarm feature in their electronic personnel dosimeter (EPD) in lieu of an additional alarm ratemeter.

10 CFR 34.47(g) requires each alarm ratemeter to : (1) Be checked to ensure that the alarm functions properly (sounds) before use using at the start of each shift; (2) Be set to give an alarm signal at a preset dose rate of 5 mSv/hr (500 mrem/hr); with an accuracy of plus or minus 20 percent of the true radiation dose rate; (3) Require special means to change the preset alarm function; and (4) Be calibrated at periods not to exceed 12 months for correct response to radiation.

The reviewer discussed these requirements with the RSO to determine how the EPDs used by the Navy would comply with 34.47. The RSO advised that the Navy currently used XETEX Minirate 317B alarming ratemeters. XETEX has been purchased by Thermo and these ratemeters are no longer manufactured. The RSO stated

that EPDs used by the Navy are the Siemens EPD Mark 2 and that EPDs purchased in the future would function in a manner equivalent to the ones in use now.

The EPDs are programmed by a password protected software program, with tiers of authority. The EPDs are “zeroed” at the beginning of a shift when radiographic work is to be done and the alarm function can be tested at this time. They are calibrated by a NVLAP approved laboratory and the EPD is set to alarm at 500 mrem/hour. This function is password protected and radiographers are not authorized to change the set points. The Navy plans to amend all permits that authorize radiography to require that the EPDs be used in accordance with the requirements delineated in 34.47, and ensure that procedures are in place and training has been provided to all affected staff before EPDs are used as an alarming ratemeter.