

Product Application: Simulated Alarming Dosimeter and Outage Dose Reduction**Interview with Gary Stein, Principle Technical Instructor, Calvert Cliffs Nuclear Power Plant**

The SD418 and SD900 Simulated Alarming Dosimeter lines are an integral part of Teletrix training solutions. Designed to fill the need for realism in dose-objective training, they are designed to mimic the functionality of real alarming dosimeters without the use of live sources. Training is enhanced as trainees experience realistic audio and visual cues and learn to properly respond to them in complete safety.

We spoke to Gary Stein, Principle Technical Instructor with Constellation Energy regarding his experience with the SD418. Gary has been with the Calvert Cliffs Nuclear Power Plant facility for over 2 decades and is responsible for RAD training and the radiation portion of GET. Excerpts from the discussion follow:



Q: Gary what prompted the interest in using simulators for AD training at Calvert Cliffs?

A: ...'Calvert Cliffs identified a need to improve dose performance during outages. 2007 outage dose was 158 REM and was determined to be too high.'

Q: How did you train your staff to use radiation detecting meters before you started using the SD418? What was your reason for changing over to the Teletrix training product?

A: ...'Trainers were using a paper and pencil system. This proved to be unacceptable, mainly because the most simple instructor involvement cued the trainee that a change was imminent.'

Q: How is the SD418 accepted by your staff?

A: ...'Staff has accepted the SD418 very enthusiastically. They feel that their training scenarios now resemble scenarios they would encounter in the field.'

Q: Did you experience a learning curve?

A: ...'Learning to use the instruments was simple. There was a curve in being presented with the ability to apply the instruments to so many different scenarios. The instructors were able to develop working training models in a relatively few short hours.'

Q: How well does the SD418 approximate your actual Siemens dosimeters?

A: ...'The stock model is very close. Pending upgrades should make it practically the same in terms of functionality.'

Q: How did you determine the number of SD418s necessary to provide the effective training?

A: ...'We wanted to make sure that each trainee had an SD418 in hand during class. A simple review of scheduled classes and number of trainees per class gave us a baseline of 30 trainees in class at any time. I added an additional ten units to our inventory to cover larger than normal classes and for units damaged in class and out for repair.'

Q: What improvements have you experienced since the change?

A: ...'EPD alarms decreased substantially during the outages. We had four EPD alarms in the 2007 outage. In our recent 2008 outage we had only one. I attribute this improvement directly to the use of the SD418 in training. We also had significant facility dose improvement during this outage.'

Q: I noticed that ALARA is mission critical at Calvert Cliffs, particularly for outages. Did the SD418's use in GET training positively affect dose accumulations?

A: ...'Yes, we identified our highest risk for potential exposure (about 80% of our population) and put them through training with the SD418. They attended a special four hour session in our mock-up. This intensified training added significantly to our site dose rate improvement. I consider Teletrix a very valuable part of the success in this outage.'

Q: How did you measure the effects attributed to the SD418?

A: ...'In 2007 we experienced a facility outage dose of 158 REM. Our business plan identified a savings of \$25,000 for each 1 REM reduction in site dose. This first draft called for a 100 REM site dose in the 2008 outage. Revisions to our plan finally settled for a 75 REM site dose. Our final analyses for the 2008 outage showed that Calvert Cliffs came in at a 73 REM site dose rate. This equates to over \$2million dollars in savings. Everyone is real happy with the results.'

Q: Can you put a dollar figure to the savings realized from using the SD418 to train for your outage?

A: ...'Our total cost for training during the outage was just about \$89,000. Although it is difficult to place an exact number on the SD418's contribution, it is safe to say that we saved a significant amount of money and the use of the Teletrix equipment had a direct part in this. On a side note, we considered competing technology and found the Teletrix equipment to be of a much greater value.'

Q: What lies ahead?

A: ...'Our new training mock-up will be combined with GET next time, due to the success of our new process. The SD418 is an integral part of this new training.'