

N166. ALARA Regional Conference: Region 1

The ALARA regional conference of NRC Region 1 utilities was held in Lancaster, Pennsylvania from July 15 to 17. The conference was very well organized by the management of the Peach Bottom Atomic Power Station of the Philadelphia Electric Company. There were approximately 60 attendees, including representatives from the NRC, INPO and the ALARA Center. One of our editors (Tas Khan) was invited to give a presentation and the following is from his notes.

In a welcoming speech, Don Miller, Vice President of Peach Bottom Operations, emphasized the change in philosophy that had led to the recent successful operation of the power plant. Instead of emphasizing getting things done at all cost, the new emphasis is on worker safety and development of mutual feelings of trust between workers and management. Ellen Karpe of Hope Creek described the ALARA efforts at that plant. She discussed the plant's experience with zinc injection. Although overall radiation fields have decreased significantly there are some problems with zinc-65. The plant was planning to use depleted zinc to overcome the problem. In response to a question on the cost and availability of depleted zinc, she indicated that at present, depleted zinc costs are approximately ten times higher than normal zinc. In the past there has been only a single supplier, but recently a second source has been located. With the developing competition and the increase in the requirements for depleted zinc, the cost should come down significantly. She also described an electronic dosimetry system that the plant is about to install.

One of the highlights was a fine presentation by Harry Roman, of PSE&G, on the past, present, and future of robotics technology for nuclear power plants. The next article, contributed by him, describes some of the recent developments. Another interesting talk was on how to make use of underwater shielding during maintenance by utilizing qualified divers to carry out complicated maintenance tasks which may not yet be possible for underwater robots. This talk was given by Hal Trimble of Peach Bottom, who described some tasks, including welding, that have been carried out. He emphasized the need for strict safety procedures if one is to utilize these techniques.

Mike Slobodien of GPU Nuclear emphasized the importance of balancing of industrial safety with radiation safety. Kevin Holsopple of Philadelphia Electric described a cost-effectiveness technique which helped his utility prioritize a set of modifications for their plants. Dennis Lawyer of GPU Nuclear described techniques for reducing the source term. Patricia Jones of Calvert Cliffs made a fine presentation in which she described an inspection of the Calvert Cliffs ALARA program by the NRC. She identified what the inspectors were looking for and how the plant had addressed the comments in the inspection report. Tim Hogan of Nine Mile Point discussed how exposures to Radiation Protection personnel may be reduced by good planning and preparation. Michael Hyde of Millstone described a very nice project during which many tons of lead blankets have been installed to reduce exposure to personnel. The dose expenditure for the installation was about 5 rem and a dose savings of about 30 rem is achieved annually.

Herb Cruickshank of Salem described a "Total Approach to ALARA", which means that his plant has utilized nearly every trick in the book to reduce occupational exposures. The PWR plant is working with EPRI to investigate the efficacy of zinc injection in PWR plants, and may be the first plant to try out this approach.

Contributed from Notes by Tas Khan, BNL ALARA Center. For more information, please contact George McCarty, Conference Coordinator, Peach Bottom Power Station, R.D. 1, Box 208, Delta, PA 17314. (717) 456-7014.