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H-187

AN AUTOMATED PROGRAM IMPLEMENTING NEW 10CFR20 REQUIREMENTS AT SOUTHERN NUCLEAR PLANTS

Keywords: OPERATIONAL AND MAINTENANCE TECHNIQUES; 10CFR20;
DOSIMETRY SOFTWARE; SOFTWARE

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Objectives: Describe the development and implementation of an integrated software system developed by Canberra Nuclear for the three Southern Nuclear plants Farley, Hatch, and Vogtle in compliance with the new 10CFR20 regulations.

Comments: Approximately two and a half years ago Southern Nuclear Company (SNC) initiated a task force to investigate a common methodology for its three nuclear plants to implement the new 10CFR20 regulations. A contract was awarded to Canberra Nuclear to develop an integrated software system for this purpose.

The two software subsystems and the major modules associated with them are:

- 1) Health Physics Data System
 - HIS-20: Health Physics Information System
 - ABACOS Plus Whole Body Counting System
- 2) Counting and Chemistry Data System
 - CAS: Countroom Analysis System
 - EMS: Effluent Management System
 - CDM: Chemistry Data Management System

Each module is either in use or undergoing final site testing at the plants.

Remarks/Potential for dose limitation: The lessons learned from this project are:

- 1) Write a detailed specification on what you want and how you expect it to perform, with a payment schedule linked to satisfactory completion of key tasks.
- 2) Select knowledgeable personnel to work on the project and empower them with the authority to make decisions. Keep these people on the project throughout the development, testing, and installation.
- 3) Work closely with the vendor on every phase of the project.
- 4) Insist on a detailed vendor test plan and testing before you begin your testing.
- 5) Perform detailed testing at the vendor's factory and again at the site before final acceptance of the product.
- 6) Train users early enough to get them familiar with the new system.

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References: Patton, P., "An Automated Program for Implementing New 10CFR20 Requirements at Southern Nuclear Plants," *1993 Radiation Exposure Management Seminar*, Westinghouse, Pittsburgh, Pennsylvania, 1993.

Duration: from: 1991 to: 1993

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