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Washington State University



Nuclear Radiation Center

Pullman, WA 99164-1300

509-335-8641

FAX 509-335-4433

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Mr. Alexander Adams, Project Manager
Non-Power Reactors Project Directorate
U.S. Nuclear Regulatory Commission
MS 0-11-B-20
Washington, DC 20555

Dear Mr. Adams:

Dr. Gerald Tripart has asked me to send my comments to you concerning the Draft SAR Standard Format and Content Section 16.2 on the Medical Use of Non-Power Reactors. The WSU TRIGA reactor facility in conjunction with people from INEL are planning to do BNCT research work on animal and eventually treatment of human patients. The areas where I see some problems in the Draft Standard are as follows:

1. The Standard specifies "Two independent redundant shutters each which has the capability to cut off the beam. The Standard should not specifically call for "shutters" but rather "two independent redundant systems or mechanisms which have the capability to cut off the beam within 30 seconds".
2. The Standard specifies that the treatment room shall have a shielded door or some other method to prevent entry during treatment. . . . A more inclusive wording would be "shielded door, labyrinth with unshielded door, or other method . . . that will cut off the beam if the treatment room is entered."
3. A single video system with a requirement that the treatment be terminated if the viewing system completely fails is sufficient. The most likely failure is not the closed circuit TV camera, but rather the monitor. Thus simply specifying two cameras is not likely to improve reliability. Two completely independent video systems would be required.
4. The Standard should more clearly specify that "the Medical Licensee shall provide the NPR with a detailed written protocol for each human patient treatment and it shall be the facility's responsibility to deliver the dose specified in the treatment protocol. The Medical Licensee shall be responsible for all aspects of the treatment except the actual operation of the NPR as well as for the patient's safety."
5. A one time complete characterization of the beam with spot checks should be sufficient unless a significant modification to the system is made that affects the beam, etc.
6. The only training modifications that should be specified is that NRC licensed Reactor Operators and Senior Reactor Operators be trained and retrained in all aspects of the operation and maintenance of the treatment facility and associated procedures, including all aspects of the NPR's operation that could affect the magnitude of the treatment beam.
7. The Technical Specifications of most facilities specify a number of Operating Procedures for the NPR. A NPR that is involved with BNCT should have the Technical Specifications modified to include a requirement for a detailed operating procedure for BNCT treatment of patients.

Sincerely,

W. E. Wilson

W.E. Wilson
Consultant

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