DOCKET NUMBER
PETITION RULE PRM 35-15
(64FR45907)

(5)

DOCKETED

'99 NOV 10 P12:17

November 3, 1999
To: Nuclear Regulatory Commission
Re: Petition for Rulemaking, Docket # PRM 35-15)

To Whom it May Concern,

The petition for rulemaking by Jeffrey C. Angel should be granted. The Angel Shield should be evaluated on its merits and looked at for what it is. Specifically, it is the first radiation syringe shield that completely shields the occupational worker from the radioactive source. It is the first radiation syringe shield which eliminates hand held injections and in so doing removes the occupational worker from immediate contact with the source. It should be viewed quite simply as a new ,better, and safer radiation syringe shield than the ones currently employed and required pursuant to 10 CFR Part 35, Section 35.60 (c).

You need only to look at your own Regulatory Guides when making your decision. The Operating Philosophy for ALARA is found in Regulatory Guide 8.10. Part (A) of 8.10 requires that every reasonable effort should be made to maintain radiation exposures as far below the limits specified. Part (B) explains the objective is thus to reduce occupational exposure as far below the specified limits as is reasonably achievable by means of good radiation protection, planning, and practice. Part (C) requires management and personnel to be continually vigilant for means to reduce exposures, and in searching out new and better ways to perform all radiation jobs with less exposure. It explicitly states that modifications to operating procedures should be made where they will substantially reduce radiation exposure at a reasonable cost.

Further guidance is found in Regulatory Guide 8.29, Risks from Occupational Radiation Exposure. In the discussion section (B), it states, ... even very low levels may have detrimental effects...the scientific community generally assumes that any exposure to ionizing radiation can cause biological effects that may be harmful to the exposed person and that the magnitude or probabilty of these effects is directly proportional to the dose. The ICRP, NCRP, and NRC positions and basic assumptions concerning radiation risks is found in the appendix to 8.29. It is assumed for radiation protection purposes that there is some risk of injury, no matter how small the dose, and that even small doses have the chance of causing cancer. Thus the principle of radiation protection is to do more than merely meet the allowed regulatory limits, doses should be kept ALARA.

The appendix defines "reasonably achievable" as also meaning "to the extent practicable". What is practicable depends on the purpose of the job, the state of the technology, the costs for averting doses, and the benefits derived. It also describes several ways to control radiation doses. Specifically, by limiting the time in radiation areas, maintaining distances from sources of radiation, and providing shielding of radiation sources to decrease the dose. The use of engineering controls, including the design of the equipment is also an important element of the ALARA concept.

The petitioners device clearly furthers the objective of reducing occupational exposures as far below the specified limits as is reasonably achievable. It utilizes the fundamental radiation protection principles of time, distance, and shielding. Until now, there was no other way to inject radionuclides and we protected ourselves with traditional syringe

PDR PRM 35-15

DS10

shields. With this new technology, we no longer have to accept that antiquated practice and the unnecessary exposure associated with hand held injections.

Thank you for considering this comment and again we urge you to grant this petition.

Sincerely,

Arthur Sher M.D.
Diplomat, American Board of Radiology
Radiation Safety Officer
160 NW 170th St.
NMB, FL 33323

Irving Waldman M.D.
Diplomat, American Board of Radiology

Norman Stokes M.D.
Diplomat, American Board of Radiology

Rudolfo Blandon M.D.
Diplomat, American Board of Radiology

Todd Schwartz D.O.
American Osteopathic Board of Radiology