

# PUBLIC SUBMISSION

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**Docket:** NRC-2009-0279  
Potential Changes to Radiation Protection Regulations

**Comment On:** NRC-2009-0279-0067  
Radiation Protection; Advance Notice of Proposed Rulemaking

**Document:** NRC-2009-0279-DRAFT-0084  
Comment on FR Doc # 2014-17252

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## Submitter Information

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**Submitter's Representative:** Mark Georgescu  
**Organization:** Blood Systems, Inc.

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## General Comment

Please see the attached document for comments.

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## Attachments

NRC-2009-0279 BSI Comments

**General Comment:** Consider exceptions or allowances for self-contained irradiators such as those used by Blood Banks and Research Facilities. These irradiators do not have as much risk of exposure as other types of irradiators.

**Q2-6:** What are the potential operational impacts of lowering the annual occupational dose to the lens of the eye from the current NRC regulatory standard of 150 mSv (15 rem) to 50 mSv (5 rem)? Would a reduction in the occupational dose limit for the lens of the eye require changes in programs, procedures, practices (e.g., increased use of protective eyewear), or in-room shielding? If so, please describe these changes, including any potential implementation and operational costs.

**Answer:** The impacts and costs associated with the lowering of the annual occupational dose to the lens of the eye will require changes in programs, procedures and practices. The increase cost of specialized eyewear and enforcement would be additional costs. These are ongoing costs, not one time implementation costs. Eyewear would have to be an individual protective item. Increased external and internal auditing for compliance increases the operating costs. Depending on the number of employees and/or irradiators this may be significant.

**Q4-1:** What are the potential implications of adding specific ALARA planning and implementation requirements to the 10 CFR part 20 regulations? What changes to licensee radiation protection programs could be anticipated? What would be the potential implementation and operational costs?

**Answer:** We do not see the advantage or necessity of requiring an additional document specifically for planning and implementation requirements to current ALARA requirements. It does not add value to the current requirements. It would be better to focus the resources allotted for implementing and practicing ALARA principles on the actual practice of ALARA principles. The potential costs are the same as many other requirements: increased personnel and administrative costs.

**Q4-4:** Should licensees be allowed to establish different ACLs for different groups of occupational workers? If so, what should be the basis for the various groupings?

**Answer:** Yes, different classes of occupational workers should have different ACL requirements, based on the potential for exposure.

**Q4-7:** What are the potential impacts to licensees, contractors, and dosimetry vendors of amending 10 CFR 20.2104 to require a licensee to account for exposure from an occupational worker's concurrent employment with another licensee? Are there any dosimetry vendors that provide concurrent dose records? Should the NRC consider provisions that would require individual occupational workers to provide their occupational dose information in addition to requiring such information from licensees?

**Answer:** This requirement will be very difficult to enforce and track because employees change companies and jobs with increasing frequency. When using sealed source irradiators in the medical field, requiring employees to track their occupational dose would have a very negative impact on the employee who has limited knowledge of irradiation in general. Additionally, the requirement will raise many concerns among this group of personnel that may not be valid based on the potential for exposure. This would be very hard to track also as many States do not require individual badges for the employees using sealed source irradiators. This is an excellent example of allowing exceptions when using sealed source irradiators. In our opinion, the NRC should not consider provisions requiring occupational dose information from either individuals or licensees of sealed source irradiators.

**Q5-1:** Will promulgation of amendments to the 10 CFR part 20 regulations with dose limits and other measurements shown in dual units, with the SI units shown first, followed by the traditional units in parentheses, cause an undue burden or hardship upon any licensee or class of licensees? If so, please explain and provide examples, including any potential implementation or operational costs.

**Q5-2:** Should 10 CFR 20.2101(a) be revised to allow licensees the option of providing records in SI units or in traditional units? Should licensees be allowed to provide reports in the units used in licensee records? Should licensees be required to record and report in both sets of units? Please provide reasons why or why not.

**Q5-3:** Should the NRC amend the appendices for 10 CFR part 20 to show values in SI units only, in traditional units only, or in both sets of units? If both SI and traditional units are provided, which set of units should be considered as the regulatory standard? If only one set of units is specified, what would be the most effective means to provide the other set of units (e.g., in a separate guidance publication)? Please provide reasons why or why not.

**Answer:** In our opinion, it is best to have one set of standard values. Having multiple unit values is very confusing and frequently hard to translate. The SI units are easier to understand and more consistent with other areas that have standardized the reporting values. If SI units become the official language, then a table with comparison values would be a helpful appendix.

**Q6-1:** What criteria should the NRC use to identify additional categories of licensees that should be required to submit annual occupational exposure reports under 10 CFR 20.2206(a)?

**Answer:** The potential for exposure and frequency of exposure, as well as the amount of source material used daily.