DHS 157 Advisory Committee Meeting
February 17, 2021

Generally applicable to ch. DHS 157

a) DHS 157.03(417) defines 'weighting factors.' Which International Commission on Radiological Protection (ICRP) guidance document should these be drawn from?

b) DHS is interested in defining terms such as "annual", "semi-annual" and "quarterly." Are you aware of any reasons why this would not be desirable? For a quarterly requirement, should the requirement be performed once within the stated period (i.e., once each calendar quarter) or at a recurring frequency (i.e., not to exceed 13 weeks)?

c) Should DHS 157.88 (1) (c) include more explicit directions for how long to post Notices of Violation and corrective actions? If so, how long should these documents be posted? What criteria should be used to determine if violation has been corrected and the posting can be removed, i.e. if a violation pertains to a yearly requirement must the posting remain until the next yearly performance of that yearly requirement or only until corrective actions are in place to ensure the yearly requirement will be performed?

Applicable to radiation producing machines

d) Should DHS 157.83(1) specify what information should be in a written directive for external beam radiation therapy? If so, what should the written directive contain? Should the written directive requirements for external beam radiation therapy be similar to what is required in DHS 157.61(4) for teletherapy?

e) DHS 157.74 (2) (f), states persons may not be exposed to the useful beam . . .2. except as authorized by the department. Variances are currently required for research where x-ray imaging is used to document, verify or screen the anatomy of a research subject. Institutional Review Boards (IRB) approved research projects for registrant involvement including if the research's scientific process involves x-ray machines. DHS would like to develop criteria to permit facilities that have IRBs that include radiation protection review, to proceed with the approved project without having to seek DHS approval for each individual research project. Do you have any language or ideas that need to be included in this exemption?
   - Proposal – Registrants with Standing Institutional Review Boards will be exempt from submitting to the department individual research projects providing they annually submit an agreement letter stating the research institution has a standing IRB and all research projects that will involve the use of x-rays will be reviewed and approved by radiation safety personnel. The annual letter will include calibration and safety operations documentation, Radiation Safety Office's review criteria, and file documentation of the previous year's approved studies.

f) DHS 157.74(2)(e) requires the use of gonadal shielding on patients who have not passed the reproductive age. The proposed removal of the requirement is in keeping with the latest recommendations from national radiation organizations including American Association of

Physicists in Medicine, American College of Radiology, Image Gently. Are there concerns regarding the removal of gonadal shielding requirements used in radiography exams?

g) Requirements for cabinet and analytical x-ray systems are set in DHS 157.87. DHS intends to separate industrial uses to be consistent with the Conference of Radiation Control Program Directors (CRCPD) and other states. CRCPD recommendations are meant to more clearly establish the safety rules for analytical and cabinet units in industry: Industrial imaging units as compared to cabinet units and hand held x-ray fluorescence devices utilize vastly different energies and uses; requiring different understanding of the potential hazards. Do you have recommendations for addressing how to divide industrial use of x-rays, examples: by energy level, imaging vs non imaging use, etc.?

h) DHS 157 has never required require thyroid shielding use during dental intra oral radiography. Should the use of thyroid collars be required?

i) In Hospital Regulation, DHS 124, Hospitals are required to have their x-ray units tested every 2 years by a physicist or their designee. This is not required in DHS 157. Should this type of testing be required in all medical settings? Currently the rule does not apply to clinics, etc.

Applicable to radioactive materials

j) The Nuclear Regulatory Commission has modified medical event reporting notification requirements in 10 CFR 35.3045 specific to permanent implant brachytherapy to use activity based criteria. Medical event reporting in DHS 157.72 must be modified to incorporate the new medical event reporting requirements. Is there any value to retaining the current dose based criteria for permanent implant brachytherapy medical event reporting under certain circumstances?

k) The sealed source leak test requirements in DHS 157.24 and DHS 157.62(5) are not consistent with respect to medical sealed sources. How could DHS 157.24 be modified to improve consistency? Should sealed sources in storage be routinely leak tested (for example every 3 or 5 years)? Alternatively, should 157.62(5) be modified to include requiring leak testing if there is any reason to suspect a sealed source is leaking?

l) Financial assurance must be considered for licensees possessing radioactive material with a half-life greater than 120 days, as described in DHS 157.15(1)(b). The 120 day half-life limit is not explicitly stated in DHS 157.15(4). Should DHS 157.15 (4) (a) also include a 120 day half-life limit?