



Matthew McKinley, Chair, Kentucky
David Turberville, Chair-Elect, Alabama
Sherrie Flaherty, Past-Chair, Minnesota
Debra Shults, Treasurer, Tennessee
Glenda Villamar, Secretary, Oregon
David Crowley, Director, North Carolina
Jenny Goodman, Director, New Jersey

March 8, 2017

Mr. Robert MacDougall
Office of Nuclear Materials Safety and Safeguards
U. S. Nuclear Regulatory Commission
Washington, DC 20555

RE: OPPORTUNITY TO COMMENT ON DRAFT NUREG-1556, VOLUME 21,
REVISION 1, "CONSOLIDATED GUIDANCE ABOUT MATERIALS LICENSES:
PROGRAM SPECIFIC GUIDANCE ABOUT POSSESSION LICENSES FOR
PRODUCTION OF RADIOACTIVE MATERIAL USING AN ACCELERATOR
(STC-17-005)

Dear Mr. MacDougall:

The Organization of Agreement States (OAS) Executive Board (Board) has reviewed the above document and respectfully submits the following comments.

1. Page 8-5, lines 8-9: It is unclear what "the total cumulative quantity for all radionuclides" is referring to. Does this mean the total cumulative quantity for each radionuclide over the anticipated life of the accelerator? Or does this mean the summed activity of each radionuclide? If it is the latter, it doesn't make sense since the guidance says that the nuclides should be line-itemed on the license.
2. Page 8-6, lines 36-38: The information in this Note is not consistent with the guidance on pages 8-4 and 8-5. The Note should highlight the detailed information that should be submitted for incidentally produced radionuclides with half-lives >120 days or in significantly larger quantities. Section 8.5.1 should also list examples of radionuclides (Co-57, Co-60, Zn-65, etc.) for each category.
3. Table 8-1 lists the quantities and example nuclides of activation products. Can all accelerators use these values? If not, this should be stated. Are these quantities and nuclides based on the energies of the particles being accelerated and the composition of the target material? Is there a way to determine the quantity and type of activation products based on these inputs? If so, this should be included in this NUREG.
4. Page 8-8, lines 24-26: Delete "Subsection (f) establishes the methods by which any financial assurance instrument, such as a prepayment, surety bond, insurance, or sinking fund, must be provided." This information is described in Figure 8-2 on the same page.

Alabama, Arizona, Arkansas, California, Colorado, Florida, Georgia, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Mississippi, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Virginia, Washington, Wisconsin

5. Page 8-9, lines 1-4. Delete this paragraph. It contains the same information as page 8-8 lines 6-10.
6. Page 8-15, line 11: Change “it is recommended that the RSO have” to “the RSO should have”.
7. Page 8-16, Figure 8-3: This figure was clearly designed for industrial radiography. Several of the icons in the figure do not relate to accelerator facilities, specifically the focus on “devices”. In addition, six-month worker audits are not required for accelerator facilities. Revise or delete this figure.
8. Page 8-34, Figure 8-6. The 10 CFR 20.1003 definition for “total effective dose equivalent” no longer includes the phrase “deep dose equivalent”. Update the text directly above the caption.
9. Appendix H, page H-2: P-32 does not seem to be a good example for accelerator facilities.
10. Appendix J, page J-2: Several isotopes (e.g., I-131) are on the table twice, and the table is missing a horizontal line separating I-129 and Th-nat.
11. Appendix K: Please use the equation editor feature of your word processing program to input the leak test equations.
12. Appendix L: The contamination limits on page L-4 are not correct. In 2014, DOT raised the package contamination limits to 240 dpm/cm² for beta/gamma/low toxicity alpha and 24 dpm/cm² for all other alpha emitters.

We appreciate the chance to comment on this subject, and stand ready to answer any questions you may have.

Sincerely,



Matthew W. McKinley
OAS Chair
Radiation Health Program Administrator
275 East Main Street
Mailstop HS-1-CA
Frankfort, KY 40621