

Comment No.	Organization	Location in the Volume	Comment	Resolution
1.	State of Nevada	General Comment regarding "frac-sand"	<p>The sections regarding "frac-sand" was very limited and is a technology that has been around, but has recently expanded to several areas in the country in a large way. With limited guidance, we are relying on the companies themselves to teach and then explain how to inspect. I took the well logging course put on by the NRC and this was NOT part of the instruction. I have a few suggestions for the guidance:</p> <p>List all of the current sources that are being used, there are several in use now but Ir-192 is the only one mentioned in the Draft;</p>	<p>Working Group developed text in Section 8.10.13.4 briefly explaining hydraulic fracturing, proppant, frac sand, and use of RAM during frac-tagging operations.</p> <p>Referred State of Nevada to Table 8.2. OK with items listed in table.</p>
2.	State of Nevada	General Comment regarding "frac-sand"	Explain the "Zero Wash Proppant" terminology and technology	<p>Working Group developed text in Section 8.10.13.4 briefly explaining hydraulic fracturing, proppant, frac sand, and use of RAM during frac-tagging operations. Can't mention Zero-Wash because it's a patented product, but discussed ceramic proppant technology tagging with radioactive materials.</p>
3.	State of Nevada	General Comment regarding "frac-sand"	List the normal activity for each source that is used	<p>Working group reviewed Table 8.2 and no other nuclides mentioned included the activity being used. Did not add activity to nuclide used in Labeled Frac Sand.</p>

VOLUME 14 EXTERNAL COMMENTS

Comment No.	Organization	Location in the Volume	Comment	Resolution
4.	State of Nevada	General Comment regarding "frac-sand"	Explain the use of the materials, and the blending in gel and sand	Working group developed text in Section 8.10.13.4 briefly explaining hydraulic fracturing, proppant, frac sand, and use of RAM during frac-tagging operations.
5.	State of Nevada	General Comment regarding "frac-sand"	Request the license to submit containment and decontamination surveys when there is a "sand out"	Added item to Section 8.10.13.4, under response from applicant
6.	State of Nevada	General Comment regarding "frac-sand"	Request procedures for removing versus burring on site after "sand out"	Added item to Section 8.10.13.4, under response from applicant
7.	State of Nevada	General Comment regarding "frac-sand"	Request emergency procedures for explosion, leak, contamination & if the lone user were to go down medically	Added item to Section 8.10.13.4, under response from applicant
8.	State of Nevada	General Comment regarding "frac-sand"	Request procedures for securing the area, "Radiography style" during use	Added item to Section 8.10.13.4, under response from applicant
9.	State of Nevada	General Comment regarding "frac-sand"	The sand trucks also possess a generally licensed device for flow measurement, this may need to be mentioned	Working group developed text to address specific license (SL) and general license (GL) gauges and incorporated text in Section 8.5.2.
10.	Organization of Agreement States	Page 32-33	Clean up the footnotes in the table for consistency and legibility	Working Group incorporated the comment.

VOLUME 14 EXTERNAL COMMENTS

Comment No.	Organization	Location in the Volume	Comment	Resolution
11.	Organization of Agreement States	Page 49, Section 8.5	Figure 8.5 does not model good security practices (having the radiation symbol twice on the side of the truck). Suggest revising or deleting.	Revised Figure 8.5 to only include one radiation symbol on truck
12.	Organization of Agreement States	Page 52, Section 8.7	Revise Section 8.7. The definition of TEDE now refers to total effective dose equivalent instead of deep dose. The Board recommends the definition of TEDE in Figure 8.7 be changed to mirror the definition from Part 20 (Total Effective Dose Equivalent (TEDE) means the sum of the effective dose equivalent (for external exposures) and the committed effective dose equivalent (for internal exposures)).	Working Group incorporated the comments and revised the definition to mirror Part 20. Working group incorporated the standard Figure to be used.
13.	Organization of Agreement States	Page 63, Figure 8.10	Figure 8.10 does not model good security practices (having the radiation symbol twice on the side of the truck). Suggest revising or deleting.	Revised Figure 8.5 to only include one radiation symbol on truck
14.	Organization of Agreement States	Page 80	Add a reference to NUREG-2166 (Security Best Practices document).	Working Group incorporated the comment.
15.	Organization of Agreement States	Appendix C, Page C-7	Item 9: Delete brackets from "Description Attached" column for the security program. Licensees should NOT submit their security program during licensing.	Working Group incorporated the comment.

VOLUME 14 EXTERNAL COMMENTS

Comment No.	Organization	Location in the Volume	Comment	Resolution
16.	State of Kentucky	Section 8.8 Page 38	Is it a requirement that a well logging licensee have a well logging assistant at each and every job site where licensed activities are being performed?	No. An individual who has been trained to the qualifications of a logging supervisor may conduct well logging activities alone as there is no requirement in Part 39 for requiring two individuals during well logging operations. However, an individual trained to the qualifications of a logging assistant who handles sources or tracer materials or performs surveys shall be under the personal supervision of a logging supervisor.
17.	State of Kentucky	Section 8.10.5 Page 52	Draft Volume 14 does not address neutron dosimetry. Add language in Section 8.10.5 "Occupational Dosimetry" to state that if you are using an Americium-241/Be source or a H-3 neutron generator that the licensee must provide personnel monitoring to occupational workers capable of detecting neutrons.	Working group verified that Section 8.10.5 discussed the use of neutron dosimetry.

VOLUME 14 EXTERNAL COMMENTS

Comment No.	Organization	Location in the Volume	Comment	Resolution
18.	State of Kentucky	Section 8.10.7	Several industrial radiography and a few well logging licensees are confusing the NRC/Agreement State required Operating and Emergency (O&E) procedures that are carried on the rigs to temporary job sites with the Emergency Response Information required by 49 CFR 172 Subpart G. The crews seem to think their O&E procedures are a substitute for the 49 CFR 172 Subpart G Emergency Response Information required to be presented with their shipping papers. Add clarification in NUREG-1556, Volume 2 (radiography) and Volume 14 (well logging) to differentiate these two different regulatory requirements.	Working Group (Volume 14) added a "Note" differentiating both regulatory requirements. The "Note" was developed by NMSS. The same note was added in the O&E section in Volume 2. Added to Section 8.10.7, Volume 14.