

**Resolution of Comments from the Public on the Proposed Revision to NUREG-1556, Volume 1, Revision 1
Consolidated Guidance about Materials Licenses — Program-Specific Guidance about Portable Gauge Licenses**

Comment No.	Commenter	Location in the Volume	Comment	Resolution
1	Kentucky	N/A	<p>One thing that I did not see discussed in the revised guide that probably bears a mentioning is the fact that for all portable gauge licensees that use a permanent shipping paper (which is practically all of them), they are required by DOT to keep a log of shipments. 49 CFR 172.201(e) Retention and Recordkeeping states "...A motor carrier using a shipping paper without change for multiple shipments of one or more hazardous materials having the same shipping name and identification number may retain a single copy of the shipping paper, instead of a copy for each shipment made, <u>if the carrier also retains a record of each shipment made, to include shipping name, identification number, quantity transported, and date of shipment.</u>" This permanent shipping paper log contains information that is not usually contained on licensee's Utilization Log. Our old Portable Gauge License Guide made no mention of this fact and I could find nothing in your current or revised NUREG 1556 Vol 1 that mentioned the DOT requirements regarding permanent shipping papers.</p> <p>I actually just recently learned this myself taking the Troxler on-line DOT hazmat refresher. This was not something that I had never heard in any class, including my one week NRC RAM Transportation.</p> <p>We are in the process of updating our own KY portable gauge license guide to provide a model combined Utilization and Permanent Shipping Paper Log which includes everything (see attached). Needless to say, if</p>	NRC staff agrees. See added text in 8.10.3: "A log meeting the requirements of 49 CFR 172.201 is required if making multiple shipments using one shipping paper."

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			we did not know of the requirement ourselves and the KY license guide made no mention of the requirement, we are not going to cite our licensees for this DOT violation. However, US DOT might feel otherwise.	
2	Air Force	Chapter 8, Section 8.10.9	NUREG 1556, volume 1, does not require radiation surveys following transport of the source. However, 10 CFR 20.1906(f) suggests Licensees are required to survey for radiation levels to ensure a source is still properly lodged in its shield when transferring special form sources in licensee-owned or licensee-operated vehicles to and from a work site. This requirement appears appropriate for portable density gauges as failure of the sliding tungsten shields to close properly will partially expose the source. Please clarify this contradiction as it applies to Portable Density Gauge Licensees.	NRC staff believes that no change is needed. The surveys required by 10 CFR 20.1906 (f) are only required if transporting greater than Type A quantities, as defined in 10 CFR 71, Appendix A, Table A1. Typically, portable gauges are less than Type A quantities.
3	Air Force	Chapter 8, Sections 8.9 and 8.10.6, Appendices E and G	NUREG 1556, volume 1, does not require a tamper seal when transporting the source. However, 49 CFR PART 173.412 requires "Type A packaging be designed so that the outside of the packaging incorporates a feature, such as a seal, that is not readily breakable, and that, while intact is evidence that the package has not been opened." This requirement does not seem appropriate for transport of portable density gauges by the permittee. Please clarify how the regulation for a tamper seal applies to Portable Density Gauge Licensees?	NRC staff believes that compliance with 10 CFR 30.34(i) will satisfy the requirements in 49 CFR 173.412.

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4	Virginia and OAS	Page xiii	Recommend including FSME into the abbreviations page	NRC staff agrees; however, NMSS was added, because it is the successor of FSME.
5	Virginia and OAS	Page 4	Recommend spelling out FSME in the first paragraph as this is the first time it is mentioned.	NMSS, the successor organization to FSME, was spelled out.
6	APNGA	Chapter 2, Page 4	Page 4, last sentence, next to the last line - should be "to check the jurisdictional status of the tribal lands to request..."	The language in the footer on Page 4 was revised. It now reads "to determine the jurisdictional status of the tribal lands and identify the appropriate regulatory agency for licensing and reciprocity."
7	Virginia and OAS	Page 5	Recommend using the abbreviation FSME in the reference paragraph	NMSS, the successor organization to FSME, will remain spelled out on the page.
8	APNGA	Chapter 3, Page 8	Page 8, Safety Culture. I am/have been the portable gauge industry stakeholder for the Safety Culture initiative and am currently developing examples for each of the Safety Culture Traits similar to the one used in the last line of the next to last paragraph on page 8 ("security requirement for portable gauge licensees...as it pertains	NRC staff believes it is not necessary to add language encouraging annual training. Annual training on safety

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			<p>to the work processes safety culture trait..."). I believe these examples will be of benefit to the licensees as they strive to understand the traits of Safety Cultures as it applies to their license conditions and activities. As you may know I am a strong proponent of adding an annual refresher requirement for the portable gauge industry not only for the purpose of advancing and maintaining a strong Safety Culture but also for addressing troublesome and repetitive emphasis items, such as gauge security during transport. Virtually all other licensees in radiological fields are required to take such a refresher and I believe it would serve to greatly benefit the portable gauge industry to have such a refresher. Many Agreement States have recognized this and taken the initiative to add such a refresher class. While I do understand that the NRC faces a major CFR hurdle if it were to add such a class I wonder if some type of wording, such as "...annual refresher or review by the RSO to the certified gauge operators for Safety Culture and general safety and security is encouraged..." would in effect get the message across while stopping short of "policy".</p>	<p>culture is not required. Also, the NRC's policy statement doesn't specifically encourage annual training of this kind. As such, NRC staff retained the text used in other NUREG-1556 volumes, which does not include specific training recommendations.</p> <p>If the commenter believes that annual refresher training should be added to the regulations for portable gauge users, a member of the public may petition the NRC to develop or change its regulations. The NRC's requirements for submitting a petition for rulemaking are included in the NRC's regulations at 10 CFR 2.802,</p>

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				"Petition for rulemaking."
9	Washington	Chapter 3- Section 3.2	New section (3.2) added to Part 3 under Management Responsibility regarding Safety Culture is not clearly written and may not be useful to our portable gauge licensees. A better effort to "plain talk" guidance to licensees should be made. This section would not fit our state's clear writing standard. The concept of safety culture is sound and we support it, however, it must be presented in a much more clear and concise manner if it is to be of benefit to our licensees. While it is noted in the NUREG that "safety culture policy statement and traits are not incorporated into the regulations", if it is the intention to do so in the future, they must be much more clearly articulated. We cannot hold our licensees to regulations that are subjective and difficult to measure. Table 3.1, outlining the "Traits of a Positive Nuclear Safety Culture", is better than the discussion, because it distills several paragraphs of vague ideas into direct, single-sentence statements.	The purpose of Section 3.2 is to introduce licensees to the concept of safety culture and provide a link to additional resources. As noted in the State of Washington's comment, licensees are not required to implement safety culture provisions because it is not a regulatory requirement. NRC staff believes the text in this section is clear and has not changed it in response to this comment.
10	ADDM	Chapter 8, Page 22	Regarding the sentence on p. 22 "Being granted an NRC license does not relieve a licensee from complying with other applicable Federal, State, or local regulations (e.g., local zoning requirements)," Please clarify what this statement means. Can a municipality issue an ordinance banning the use of devices containing radioactive sources in their city or town?	NRC staff disagrees and made no change. The sentence in the box is correct. The licensee must comply with all governmental regulations.

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11	Illinois	Chapter 8, Section 8.3, Page 22	<p>Item 8.3, page 22: This instruction states, “An NRC approved license amendment is required before receiving, using and storing licensed material at an address or location not included with the application or already listed on the license.” Temporary jobsite locations are not listed in the application or on the license. These do not require an amendment prior to use at the temporary location.</p> <p>And</p> <p>Item 8.3, page 22: The note for this section indicates the licensee is to maintain records for temporary job sites where radioactive sources have leaked. The Agency recommends adding additional reporting requirements to this note that pertain to leaking sources. The note as stated appears to assume simply maintaining records of leaking sources for inspection at a later date would be adequate.</p>	<p>NRC staff recommends no change. NRC licenses authorizing the possession and use of portable gauges usually authorize activities at temporary jobsites.</p> <p>NRC staff does not believe that Section 8.3 is the optimal location to include leak test reporting requirements. Additional reporting language was added to Section 8.10.7: “If the test reveals the presence of 185 Bq (0.005 microcurie) or more of removable contamination, a report should be filed with the NRC in accordance with 10 CFR 30.50(c)(2).”</p>

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12	Virginia and OAS	Page 22, Item 3	Recommend the NRC request that licensees submit detailed diagrams of the storage locations and surrounding areas for review during the licensing process to ensure security and ALARA are being considered.	NRC staff agrees; however, Section 8.9 is the more appropriate section for this request and has included this text: "Provide a facility diagram for each permanent portable gauge storage location or other information that demonstrates that public doses and security are being properly addressed at each storage location. Include on the diagram the use of adjacent areas (including above and below), and information relevant to public dose and security as discussed in sections 8.10.5, 'Public Dose,' and 8.10.6, 'Operating, Emergency, and Security Procedures,' respectively."

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13	Washington	Chapter 8, Section 8.5.1 – Page 23	In section 8.5.1 Sealed Sources and Devices, under “Response from Applicant” (page 23), there is a requirement to “state the total quantity of each type of portable gauge”. This is new from the previous version of the NUREG. What is the reason for this change? In Washington, we charge a flat license fee rather than charging per gauge. We allow a licensee to have as many of a variety of gauges as they need, up to a limit established on the license that is <u>well</u> below surety requirements. The quantity of and type of gauges possessed are verified at each inspection. Many times an applicant does not know exactly how many gauges they will get until their license has been issued. This change seems to add an additional unnecessary requirement to the application process.	NRC staff disagrees. In response to the 2005 GAO investigation of NRC security measures, the NRC implemented new internal procedures that call for the inclusion of total possession limits in licenses authorizing the possession of byproduct, source and special nuclear material.
14	Wisconsin	Chapter 8, Section 8.5.2, Page 24	Page 24 – 1 st paragraph in Discussion – make 10 ⁶ and 10 ³ to be 10 ³ – (superscript)	NRC staff agrees and made the recommended change. “10 ⁶ ” was changed to “10 ³ ”; “10 ³ ” was changed to “10 ³ ”
15	APNGA	Chapter 8, Page 25	The last two bullet items could be misconstrued to mean two different courses. One solution would be to state: “portable gauge manufacturer’s course for users and RSOs, with hands-on experience with portable gauges or. ”	NRC staff agrees and made the recommended change: 1 st bullet: “portable gauge manufacturer’s course for users and RSOs, with hands-on experience with

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				portable gauges OR"
16	Illinois	Chapter 8, Sections 8.7 and 8.8, pages 26 and 27	Items 8.7 and 8.8, pages 26 and 27: These items are for proposing the names of the Radiation Safety Officer and authorized users of radioactive material. There is no mention of any type of background or reference check on these individuals or a check to ensure the individual is "known" to NRC. At a minimum, the regulator should check the National Enforcement Database to see if the individual or company is prohibited from operations.	The NRC has a checklist to provide a basis for confidence that radioactive materials will be used as specified on the license. The NRC has not created requirements for background checks for most portable gauge licensees, but does require them for licensees with more significant quantities and is described in 10 CFR Part 37.
17	APNGA	Chapter 8, Page 26	2 nd bulleted item under "Response from Applicant" should read "documentation demonstrating that the proposed RSO is qualified by training and experience (i.e., certificate of completion of the RSO's course and the authorized user's course)".	NRC staff disagrees. There is currently no requirement for a specific RSO training course; therefore, to clarify this point, the text concerning acceptable training documentation was revised to include a certificate of

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			<p>Note: There is currently no requirement to take a RSO class (there should be! But there currently isn't). There are a number of Agreement States that do have this requirement and the current offerings by industry of RSO courses in and of themselves typically do not qualify an individual to be an authorized user. One must always take a portable gauge certification class to first become an authorized user and then they typically take an RSO course to better understand the role of the RSO. The initial certification course is typically a prerequisite for taking an RSO course but as mentioned, the RSO course by itself, as currently offered by industry, does not certify the user.</p>	<p>completion of the RSO's course "and/or" the authorized user's course.</p> <p>Changes to the NRC's requirements concerning RSO training courses are outside the purview of this NUREG.</p> <p>NRC staff appreciates the commenter's statement that RSO courses typically do not qualify individuals as authorized users and notes that RSO courses are not described as acceptable training for authorized users in the relevant portion of the NUREG (i.e., section 8.8, Item 8).</p>

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18	Wisconsin	Chapter 8, Section 8.8, Pages 26 & 27	In the Criteria section, there may be a bullet item missing. For user training, the text says "one of the following" but then gives only one option.	<p>NRC staff determined that the electronic version has both bullets. Evidently, some copies that were distributed didn't include the second bullet.</p> <p>The final published version will include the missing bullet: "documentation demonstrating that the proposed RSO is qualified by training and experience (e.g., certificate of completion of the RSO's course and/or the authorized user's course)."</p>
19	Colorado	Section 8.9, Page 27	<p>Regulations – make sure that "10" and "CFR 30.34(i)" are on the same line</p> <p>Response from Applicant – change "needed" to "need to"</p>	<p>NRC staff agrees.</p> <p>NRC staff deleted the sentence with "needed" in response to comment 20.</p>

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20	Illinois	Chapter 8, Section 8.9, Page 27	Item 8.9, page 27: This document indicates that the applicant is not required to submit any information pertaining to the facility location for the use/storage of radioactive material. This would prohibit any review for adequacy of the facility for safety including shielding or security and prohibits a proper review to determine if this location is adequate for the use or storage of radioactive material. The document only indicates that the location will be reviewed during inspection. Is the inspection performed after the license is issued or during a pre-licensing visit? If the facility is inadequate, an inspection conducted after the license is issued may be too late for safety and security issues to be addressed.	NRC staff agrees. The text has been revised as follows: "Provide a facility diagram for each permanent portable gauge storage location or other information that demonstrates that public doses and security are being properly addressed at each storage location. Include on the diagram the use of adjacent areas (including above and below), and information relevant to public dose and security as discussed in sections 8.10.5, 'Public Dose,' and 8.10.6, 'Operating, Emergency, and Security Procedures,' respectively."

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21	Washington	Chapter 8, Section 8.10.1 – Page 28	In section 8.10.1 Audit Program, on page 28, it states "...applicants should consider performing performance based audits...". We have made this a requirement on the license. What is the reason for considering this optional rather than a required item?	The audit is required by 10 CFR 20.1101(c), but there is no regulation dictating exactly how the audit is performed, thus the use of "should."
22	New Jersey	Chapter 8, Section 8.10.2	We suggest adding a line in the Section "8.10.2 Instruments" to alert licensees that they need to consider the availability of a borrowed or rented survey meter during non-business hours. If an incident occurs on weekends or after 5 p.m., there may be no way to retrieve a meter. or <i>Require Portable gauge licensee's to possess their own survey meter.</i>	NRC staff agrees and modified the Discussion section by adding language from the commenter's 1 st alternative.
23	Wisconsin	Chapter 8, Section 8.10.3, Page 30	The use of the abbreviation "SSD" in this paragraph is awkward. All other uses of "SSD" pertain to the SSD Registry or registration sheet, not to the actual sealed source and device. Spell out "sealed source and device."	NRC staff agrees and has made the suggested edit. References of "SSD" have been changed to "sealed source and device."
24	Washington	Chapter 8, Section 8.10.4 – Page 31	In section 8.10.4 Occupational Dosimetry (page 31) in the Discussion, it states "When personnel dosimetry is needed, most licensees use either film badges or thermo-luminescent dosimeters (TLDs) that are supplied by an NVLAP-approved processor." Very few of our licensees still use film badges. Most of them use TLDs or optically stimulated luminescence (OSL) dosimeters. This part should be updated to reflect the changes in	NRC staff agrees and has deleted the sentence. See response to comment 25. This text has been deleted: "When personnel dosimetry

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			technology.	is needed, most licensees use either film badges or thermos-luminescent dosimeters (TLDs) that are supplied by an NVLAP-approved processor.”
25	Virginia and OAS	Chapter 8, Section 8.10.4, Page 31	Recommend that the sentence be changed to read “When personnel monitoring is needed applicants must ensure that the processor is NVLAP approved and consult the processor for its recommendations for exchange frequency and proper use of the dosimeter.”	NRC staff agrees. The sentence was revised to read: “When personnel monitoring is required, applicants must ensure that the processor is NVLAP approved and consult the processor for its recommendations for exchange frequency and proper use of the dosimeter.”
26	Wisconsin	Chapter 8, Section 8.10.5, Page 32	In the Criteria section, change "operations" to "material" to more clearly convey that licensees need to take gauge storage (not just gauge use) into account.	NRC staff agrees and made the suggested edit. In the text, “operations” was changed to “material.”
27	Illinois	Chapter 8, Section	Item 8.10.5, page 34: This item indicates that the public	NRC staff modified

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		8.10.5, Page 34	dose/shielding evaluation is not required to be submitted as part of the application. This could have enormous safety ramifications for not only workers within the applicant's facility, but also members of the public if the facility has inadequate shielding and is not discovered until an inspection is conducted.	the "Response from Applicant" in Section 8.9 to include public dose considerations.
28	APNGA	Chapter 8, Page 34	"steps to take, and whom to contact, when a gauge has been damaged". I would offer the following comments regarding damaged gauges: There has always been agreement within the industry and the regulatory agencies as to what immediate steps should be taken once a gauge has been damaged, namely cordoning off the area and contacting the RSO, but then the uncertainty starts. Should the RSO always contact the NRC/Agreement State immediately? Who is authorized to move/ remediate the gauge?, the RSO, a consultant, the manufacturer? Does a regulatory agent always have to be present? What about notification to the USDOT? What about a damaged gauge transported inside of a Type A Package? What about a damaged Type A Package? I think a clarification statement regarding these scenarios would serve to better prepare the RSO/licensee in the event of a damaged gauge. Only then can you have a complete Emergency Procedures document.	NRC staff agrees that this information should be included, but believes it should be included in Appendix G. Table G.1 "Regulatory-Required Notifications" was added to Appendix G to specify when and what types of notifications to the NRC/Agreement States are required.
29	Wisconsin, and OAS	Chapter 8.10.6 – Discussion – 1 st paragraph, 1 st line	Sect. 8.10.6 – Discussion – Comment: 1 st paragraph, 1 st line, remove the “-“ in “Figure 8.-4”.	NRC staff agrees and made the suggested edit. In the text, “-“ in Figure 8.4 was removed.

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30	ADDM	Chapter 8, Page 35	<p>Regarding the sentence on p. 35, Figure 8.4 "Gauges are often damaged by heavy equipment at job sites; therefore, emergency procedures need to be followed to minimize radiation safety risk." What is the basis of this statement? Please provide a reference for an information notice or NMED reference which discusses individual cases of devices being damaged by heavy equipment. Is the frequency of these documented occurrences sufficient enough to be called "often damaged?"</p> <p>We suggest the following alternate text" "In the unlikely event that gauges are damaged, emergency procedures need to be followed to minimize radiation safety risk."</p>	NRC staff agrees that "are often" is not the correct characterization and changed the text to "can be."
31	Virginia and OAS	Chapter 8, Section 8.10.6, Page 35	<p>Virginia disagrees with the requirement that an applicant "will develop, implement and maintain security procedures using information in Appendix G." The two barrier rule is already a regulation requirement listed in 10 CFR 30.34(i) and thus the licensee should not be required to submit a procedure to state how they will meet this regulation. In the past, licensees have not been required to submit procedures on how to meet the storage criteria listed in 10 CFR 20.1801 or 1802, these are verified during the inspections. During inspections verification on how the licensee is meeting the 10 CFR 30.34(i) requirement is also performed. Virginia recommends this requirement be removed from this document or Appendix G be rewritten to incorporate statements regarding the security requirements that would allow the licensee to implement and maintain Appendix G as their procedure.</p> <p>OAS had the identical comment.</p>	NRC staff notes that there is no requirement to submit a procedure to state how the licensee will meet the requirements in 10 CFR 30.34(i). Also, the Response from Applicant section of section 8.10.6 includes options to either commit to implementing and maintaining the procedures in App. G (as suggested by the commenters); commit to

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				developing, implementing, and maintaining procedures that meet the criteria in App. G.; or submit alternative procedures.
32	Washington	Chapter 8, Section 8.10.9 – Page 39	In section 8.10.9 Transportation (page 39), there is a paragraph under Discussion that addresses DOT requirements. It mentions labeling, and blocking and bracing. There is no statement here about the security requirements. While these requirements are well addressed in Appendix G, it seems it would be appropriate and helpful to the applicant to include a mention of them here.	NRC staff disagrees. The subject of the paragraph in section 8.10.9 to which the commenter refers is DOT requirements; therefore, information on the NRC's security requirements is outside its scope and was not included.
33	New Jersey	Chapter 8, Section 8.10.9 – Page 39	In the bullet under Discussion : We strongly agree with the statement on Page 39 that "some DOT requirements are overlooked by portable gauge licensees" - specifically, the regulations for hazmat training. It may be a good idea to point licensees to Section "8.10.9 Transportation" from Section "8.8 Item 8: Training for Individuals Working in or Frequenting Restricted Areas."	NRC staff agrees and added a bullet under notes in Section 8.8 that states: "Initial and recurrent (every 3 years) DOT hazmat training is also required for all gauge users that transport gauges (see Section 8.10.9, "Transportation")."

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34	Illinois	Chapter 8, Section 8.11, Page 39	Item 8.11, page 39: This item addresses disposal and transfer of a gauge and the information to be evaluated prior to transferring the radioactive material (i.e., check that the recipient's license authorizes the type, form and quantity of byproduct material). Some agencies, including Illinois specifically list the manufacture and model number of the device and radioactive source on the license. In this security minded age, checking the serial number is also critical. Simply verifying the type of radioactive material or gauge would not be adequate for transfer of radioactive material to an Illinois licensee.	NRC staff agrees and addressed the comment by revising the last sentence in the first paragraph of the Discussion section, which now specifies the manufacturer and model as authorization criteria. However, NRC staff disagrees that the serial number needs to be included.
35	Illinois	Appendix C, Page C-1	<p>Appendix C, page C1: The training outline does not address the U.S. Department of Transportation Hazardous Materials training required every three years.</p> <p>Additionally, the training was reduced to a total of 3-5 hours, which includes instruction and on-the-job training.</p> <p>The instructor is only required to have a total of 8 hours of training.</p> <p>These do not appear adequate to ensure an individual can safely use and transport radioactive material.</p>	<p>NRC staff agrees. A note was added to Appendix C that addresses DOT training.</p> <p>NRC staff disagrees that the hours were reduced. This section was not changed.</p> <p>Instructor qualifications were edited but the hours required remain the same.</p>

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				NRC staff believes that the training recommendations outlined, which remains largely unchanged, is adequate.
36	APNGA	Appendix C, Page C-1	<p>"Course Examination", 1st sentence stating a ...<i>"closed book"</i>... requirement. I would ask the NRC to reconsider the "closed book" requirement. The typical prospective gauge user is a construction worker unfamiliar with basic radiation physics, regulations and procedures. There is a substantial amount of materials for this individual to become familiar with in one sitting. While the online class allows the person to spend as much time as necessary to learn the material, the sheer volume of information can prove daunting to absorb.</p> <p><i>An "open book" format provides an additional level of learning. Given the opportunity, most individuals will strive to achieve the best grade they can. That improved grade will be achieved by looking up and reinforcing their knowledge and understanding of the materials. We only get one shot at them - we need to take full advantage of that and make it count.</i></p>	NRC staff agrees and has deleted the reference to a "closed book" exam because there is no specific requirement for a "closed book" exam.
37	APNGA	Appendix C, Page C-1	Instructor Training and Experience", Clarity is needed for this section. You are asking that an individual/licensee that is interested in providing gauge training to prospective authorized gauge users acquire the	NRC staff disagrees that further clarification is needed.

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			<p>following: a portable gauge user course (as described in Appendix C?), an 8 hour radiation safety course (how does that differ from the base portable gauge user course as described in Appendix C and who provides it?) and an RSO course (undefined by the NRC). The previous NUREG requirement was for a 40 hour class. Perhaps completion of the gauge safety course and the RSO course will equate to the 8 hour requirement.</p> <p>There is also the mention of a 25 to 50 question <u>written test</u>. Do multiple choice and true/false questions fall under the heading of <u>written test</u>?</p>	While NRC staff believes that multiple choice and true/false tests are written tests, it was not deemed necessary to add text clarifying this point.
38	APNGA	Appendix E, Page E-4	Under Transportation part b.: The USDOT has recently begun not only asking for but fining licensees that do not have a copy of the engineering drawings of Type A Packages (under CFR 171.2 (a,b,e) and 173.415(a). The test results alone are not sufficient.	NRC staff agrees. The text has been revised to include "engineering drawings."
39	APNGA	Appendix E, Page E-4	Appendix E-4, under Transportation part f.: Should the sentence read "Was the package closed and locked during transport?" Using the word sealed could be misconstrued. Both the USDOT and NRC have determined that a lock suffices as a seal and therefore a separate seal is not necessary. See attached letters.	NRC staff agrees and added "locked" as an example of sealed.
40	Washington	Appendix G	New section added to Appendix G – Operating, Emergency and Security Procedures addresses "Information to Consider when Developing Security Procedures", describes in just the right level of detail how	NRC staff appreciates the comment.

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			to secure gauges in vehicles, at temporary job sites, and at permanent storage locations. It is clearly written and contains very good information for licensees by clarifying the requirements and giving good examples. The accompanying photographs demonstrating the correct way to secure a gauge in a vehicle are very worthwhile. This should help licensees improve their safety programs.	
41	Wisconsin	Appendix G, Page G-3	Appendix G -_Comment: Combine 2 nd and 3 rd bullets under RSO and Licensee Management section – they should not be split up.	NRC staff agrees and made the recommended change. The 2 nd and 3 rd bullets were combined under Radiation Safety Officer and Licensee Management section to read, “If gauges are used for measurements with the unshielded source extended more than 3 feet below the surface, contact persons listed on the emergency procedures need to know the steps to be followed to retrieve a stuck source and to convey those steps

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				to the staff on site."
42	New Jersey	Appendix G, Page G-3	<p>4th bullet – 6th line – remove the extra space between "of" and "10 CFR 20.2203"</p> <p>Footer – add a space at the end between "of" and "emergency"</p>	<p>NRC staff agrees and made the recommended change to the 3rd bullet: The extra space between "of" and "10" was removed.</p> <p>NRC staff agrees and made the recommended change and added a space after "of" in the footer.</p>
43	Wisconsin	Appendix G, Page G-4	Licensees should not be required to develop a separate security procedure. Many security elements are already addressed in the operating procedure. We have been expecting our licensees to integrate security into their existing operating procedures for a number of years, and we do not see added value in creating a distinct security procedure.	NRC staff agrees that it is acceptable to create a separate security procedure or to incorporate the security requirements into a joint operating and security procedure. NRC staff created a sample security procedure in response to a different comment.
44	Wisconsin	Appendix G, Page G-4	"Information to Consider when Developing Security Procedures" is basically guidance on how to meet the two-barrier rule and should be more explicit about stating this. The section should also have specific guidance on	NRC staff agrees and added security procedures to Appendix G.

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			what topics should be covered in a security procedure.	
45	APNGA	Appendix G, Page G-4	4th paragraph, 3rd line - Do you really want to list a <u>hotel room</u> as a place to temporarily store a gauge?	NRC staff agrees and removed “hotel room” from the 4 th paragraph, 3 rd line under Methods to Meet the Security Requirements section (Appendix G, Page G-5).

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46	New Jersey	Appendix G, Page G-6	A section on what does not constitute two physical controls with a picture - such as a locked transportation case with one cable through the handle and looped around part of the truck bed. Strengthen the statement on Page G-6, top paragraph-to read: "Licensees commonly use a chain and a padlock to secure a portable gauge in its transportation case to the open bed of a pickup truck while using the vehicle for storage. This is not considered to be adequate security because there is only one physical control. The transportation case is portable and a theft could occur if the chain is cut and the transportation case with the portable gauge is taken. Similarly, if a licensee simply loops-the chain through the handles of the transportation case, a thief..."	NRC staff agrees with the language change but disagrees with adding a picture. The following text was added: "Licensees commonly use a chain and a padlock to secure a portable gauge in its transportation case to the open bed of a pickup truck while using the vehicle for storage. This is not considered to be adequate security because there is only one physical control. The transportation case is portable and a theft could occur if the chain is cut and the transportation case with the portable gauge is taken. Similarly, if a licensee simply loops-the chain through the handles of the transportation case, a thief..."

Comment No.	Commenter	Location in the Volume	Comment	Resolution
47	Colorado	Appendix G, Page G-7 and Page G-8	<p>As a general comment and in light of the specific comments below, it is our opinion that the examples and pictures provided in Appendix G provide helpful guidance to licensees.</p> <p>Figure (photograph) G. 1 of Appendix G should be modified to better demonstrate that any cables/chains used should generally be kept taut. The cables/chains clearly show "slack". Having slack in cables or chains may aid in the theft of a gauge and allow movement or prying.</p> <p>Figure (photograph) G.2 of Appendix G is somewhat unclear in demonstrating the two lock approach requirement for security. Possibly, it is due to the angle of the image. It is somewhat difficult to see if there are two separate chains or one single chain connected at different ends. It is suggested that the image/photo be retaken at a different angle or a second photo or inset be added to clarify this. Alternately, text and arrows could be overlaid upon the image to more clearly point out or explain the lock and chain mechanisms in the Figure.</p>	NRC staff agrees and added different figures.
48	New Jersey	Appendix G, Page G-8	Label Figure G.2 with arrows pointing out the two locks on the box. If not familiar with that type of locking system, it appears that there is just one padlocked chain.	NRC staff agrees and replaced the figures with new figures.
49	ADDM	Appendix G, Page G-9	The rest of the document is well written, especially section G-9 which describes the requirements for two physical controls. Some licensees have been unclear as to what the criteria of this requirement is.	NRC staff appreciates the comment.
50	Wisconsin	Appendix H	Appendix H, Page H-2, the font for "Guidance to Licensees" is different.	NRC staff agrees and changed the

Comment No.	Commenter	Location in the Volume	Comment	Resolution
				font.
51	New Jersey	Appendix H, Page H-11	Sentence above the second box should read "is equal to less than <u>0.0005</u> microsievert (0.05 mrem) per hour".	NRC staff disagrees with the comment and believes that 0.5 microsievert, rather than 0.0005 microsievert as implied by the commenter, is the appropriate value.
52	Air Force	Appendix I	<p>a.The formula provided in the NUREG is only appropriate if the sample and background count time are the same. Please state this restriction or provide a more general equation.</p> <p>b.The NUREG instructions for estimating instrument efficiency, neglected to state that the calibration source must be in the same configuration as the sample.</p> <p>c.The NUREG requires the use of a NIST traceable source with an accuracy of + 5%. However, there is no requirement for the number of source counts that must be collected. The number of source counts has a direct effect on the statistical accuracy of the efficiency; i.e., 10000 source counts provides an additional 1% error, 1000 counts a 3% error, 100 counts a 10% error. Suggest a minimum number of source counts be collected, so the efficiency calculation will maintain the</p>	<p>NRC staff agrees, and added "(valid only when the sample and background count times are the same)."</p> <p>NRC staff agrees and added "The calibration source must be in the same configuration as the sample."</p> <p>NRC staff agrees, but notes that there are no specific regulatory requirements on counting statistics. NRC staff added a note for the licensee's</p>

Comment No.	Commenter	Location in the Volume	Comment	Resolution
			<p>low statistical accuracy you are suggesting.</p> <p>d. The NUREG stated that leak test analysis results be reported in "millicuries" rather than "microcuries" as has traditionally been required. Is this an oversight or have the reporting requirements changed?</p>	<p>consideration when developing their calibration procedures: "Efficiency accuracy is dependent upon the total integrated counts of the standard. The count time and the standard's activity should be large enough to produce a relatively high number of integrated counts (e.g., 10,000 source counts provides an additional 1% error, 1,000 counts a 3% error)."</p> <p>NRC staff agrees that this was an oversight. The text has been changed back to microcuries.</p>

The comments received have been posted in NRC's Agencywide Documents Access and Management System with the indicated Accession Numbers.

ADDM ML12194A471
Air Force ML12194A472
OAS ML12187A160
APNGA ML12194A470
State of Colorado ML121850017
State of Illinois ML15061A160

State of Kentucky ML15061A126
State of New Jersey ML12184A034
State of Washington ML15061A134
State of Wisconsin ML12184A035
Commonwealth of Virginia ML15061A129