



Ms. Cindy Bladey  
Rules, Announcements, and Directive Branch  
Division of Administrative Services  
Office of Administration  
Mail Stop: TWB-05-B01M  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

5/30/2012  
77 FR 31894  
(5)

Re: NUREG-1556, Volume 1, Revision 2, draft

NUREG 1556 VOL 1 REVISION 2 DRAFT COMMENTS

RECEIVED

MAY 31 2012

RULES & POLICIES

Thank you for the opportunity to comment on the NUREG 1556 Vol. 1 revisions. My comments will be provided in a chronological page by page order. While no one would ever confuse me with an English Major I will nonetheless also try to point out any typos.

- Page 4, last sentence, next to the last line – should be “to check the jurisdictional status of the tribal lands to request...”
- 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 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”.
- Page 24, next to last paragraph – last sentence: Licensees “should may” ?

SOUST Review Complete  
Template = ADM-013

E-REDB = ADM-03  
all = J. Herrera (txh1)

- 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."
- Page 26, 2<sup>nd</sup> 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)". 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.
- 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.
- Appendix C-1, "Course Examination", 1<sup>st</sup> sentence stating a ..."closed book"... 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. 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.
- Appendix 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 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. There is also the mention of a 25 to 50 question written test. Do multiple choice and true/false questions fall under the heading of written test?
- Appendix 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. See attached letter.

- 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.
- Appendix G-4, 4<sup>th</sup> paragraph, 3<sup>rd</sup> line – Do you really want to list a hotel room as a place to temporarily store a gauge?

Thank you for your consideration and the opportunity to comment on the NUREG 1556 Volume 1 revisions.

George Marshall – Director  
(APNGA) American Portable Nuclear Gauge Association  
15105 Bitterroot Way  
Rockville, MD 20853  
240-888-6426  
gmarshall@apnga.com

# Tamper Evident Seals

March 17, 2011

Mr. George Marshall, Director  
American Portable Nuclear Gauge Association  
15105 Bitterroot Way  
Rockville, MD 20853

Dear Mr. Marshall:

Your email dated October 28, 2010 to Ms. Sampson requested our interpretation of whether a lock is a sufficient tamper indicating feature on a radioactive material package. The Nuclear Regulatory Commission (NRC) staff has reviewed the regulation that pertains to your request, namely Title 10 of the *Code of Federal Regulations* (10 CFR), Part 71, "Packaging and transportation of radioactive material," and in particular 10 CFR 71.43, "General standards for all packages."

The provisions of 10 CFR Paragraph 71.43(b) requires that "The outside of a package must incorporate a feature, such as a seal, that is not readily breakable and that, while intact, would be evidence that the package has not been opened by unauthorized persons." The objective of the NRC's tamper-indicating system is to provide assurance that no tampering or entry occurred after the seal was applied to the container. A lock that can be applied, removed and reapplied, without leaving any indication of tampering on the seal or associated container, would not necessarily provide such an assurance. A lock may be used as part of a tamper indicating system if it meets the requirements of 10 CFR 71.43(b).

Between November 10, 2010 and January 19, 2010, we received additional limiting language from you in regard to your request. The NRC staff's original response, noted above, generally outlined the packaging requirements of 10 CFR, 71, "Packaging and Transportation of Radioactive Material." However, the provisions of 10 CFR 71.14(b) describes exemptions for low-level materials. A licensee is exempt from all the requirements of Part 71 other than Sections 71.5 and 71.88 (Air transport of plutonium), with respect to shipment or carriage of the following packages, provided the packages do not contain any fissile material, or the material is exempt from classification as fissile material under Section 71.15:

- (1) A package that contains no more than a Type A quantity of radioactive material;

One additional requirement is that the material being shipped does not contain Category 1 and Category 2 material in excess of the Import Export limits describe in 10 CFR 110 Appendix P.

**If the packages do not exceed the limits of 10 CFR 110 Appendix P and your packages do not contain more than a Type A quantity or any fissile material, the only remaining requirement is to comply with Section 71.5, "Transportation of Licensed Material." This Section requires compliance with the Department of Transportation applicable requirements of 49 CFR 107, 171 through 180 and 390 through 387. Therefore, if you do not exceed the above limits and you comply with the Department of Transportation requirements you will be in compliance with 10 CFR 71.**

G. Marshall

-2-

In accordance with 10 CFR Section 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agency-wide Documents Access and Management System (ADAMS). ADAMS is accessible through the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

Robert Caldwell, Branch Chief */RA/*  
Fuel Cycle and Transportation Security Branch  
Division of Security Policy  
Office of Nuclear Security and Incident Response



U.S. Department of Transportation  
**Pipeline and Hazardous Materials  
Safety Administration**

OCT 13 2010

1200 New Jersey Ave, SE  
Washington, D.C. 20590

Mr. George Marshall  
American Nuclear Portable Gauge Association  
15105 Bitterroot Way  
Rockville, MD 20853

Ref. No. 10-0121

Dear Mr. Marshall:

This responds to your May 28, 2010 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to Class 7 (radioactive) material packages. Specifically, you ask if a lock is a sufficient feature on a Type A packaging to satisfy the requirement to seal a Type A packaging in accordance with § 173.412.

The answer is yes. Section 173.412(a) requires the outside of a Type A packaging to incorporate a feature, such as a seal, that is not readily breakable; and while intact, is evidence that the package has not been opened. A similar requirement exists in the International Atomic Energy Agency (IAEA) Safety Standards, *Regulations for the Safe Transport of Radioactive Material* (TS-R-1; see Paragraph 635). IAEA Safety Standards, *Advisory Material for the Safe Transport of Radioactive Material* (TS-G-1.1), a companion guide for TS-R-1, states:

“There are many methods of sealing but the following are typical of those used on packages for radioactive material: ... padlocks may be used on timber boxes and also for lead/steel packages. A feature such as a drilled pillar may be incorporated into the box or packaging design so that when the padlock is fitted through the drilled hole it is not possible to gain entry into the package.” [Paragraph 635.3(c)]

PHMSA agrees with the guidance in TS-G-1.1. The intent of a seal on a Type A package is to limit access in transportation to authorized persons. A padlock ensures that only authorized persons may access the package. Any damage to the padlock will provide evidence of package opening by unauthorized persons. Thus, it is the opinion of this office that a lock, that is not readily breakable and that is placed in the locked position on a Type A packaging, may be used as a feature to satisfy the requirement to seal a Type A packaging in accordance with § 173.412.

I hope this information is helpful. If you have further questions, please contact this office.

Sincerely,

Ben Supko  
Acting Chief, Standards Development  
Office of Hazardous Materials Standards

# TYPE A Package Engineering Drawings

PHMSA Case No. 11-00181-RMS-SW [REDACTED]

Addendum A  
Page 1 of 5

## SPECIFIC ALLEGATIONS

### General Factual Allegations/Averments

1. During an inspection at [REDACTED], PHMSA's investigator reviewed shipping papers, compliance records, and observed Respondent's procedures for offering for transportation in commerce a hazardous material, RQ, UN3332, Radioactive Material, Type A Package, Special Form, 7.
2. Respondent conducts nuclear gauge repair, calibration and leak testing and places Class 7 materials into transportation.

### Probable Violation No. 1

Offering for transportation in commerce a DOT specification 7A packaging containing RQ, UN3332, Radioactive Material, Type A Package, Special Form 7, without maintaining complete documentation of tests and an engineering evaluation or comparative data in violation of 49 C.F.R. §§ 171.2(a, b, e) and 173.415(a).

### Factual Allegations/Averments

1. On May 26, 2011 at Respondent's facility in [REDACTED], PHMSA's investigator reviewed nuclear gauge service request forms with attached sales orders provided by the Respondent that document the transfer of radioactive materials between the Respondent and its customers.
2. Upon review of the service request forms, PHMSA's investigator noted that the Respondent offers for transportation in commerce several different Type A packages containing RQ, UN3332, Radioactive Material, Type A Package, Special Form, 7.
  - a. Humboldt gauge model 5001 on March 8, 2011 and March 18, 2011;
  - b. Troxler gauge model 3430 on January 8, 2011, January 21, 2011, May 6, 2011, and May 24, 2011;
  - c. CPN gauge model MC-1DR on January 26, 2011 and February 2, 2011.
3. Upon request, Respondent failed to provide to the PHMSA investigator copies of the complete documentation of tests and engineering evaluation or comparative data for the three different Type A Packages that the Respondent had offered for transportation in commerce.
4. Respondent offered for transportation in commerce a DOT specification 7A packaging containing RQ, UN3332, Radioactive Material, Type A Package, Special Form 7, without maintaining complete documentation of tests and an engineering evaluation or comparative data in violation of the HMR.