

Title: Nuclear Regulatory Commission (NRC) Fiscal Year 2012 Agency Report

1. Please describe the importance of standards in the achievement of your agency's mission, how your agency uses standards to deliver its primary services in support of its mission, and provide any examples or case studies of standards success. Please include relevant Internet links and links to your agency's standards website.

It is the policy of the U.S. Nuclear Regulatory Commission (NRC) to increase the involvement of stakeholders in our regulatory development process and, consistent with the provisions of the National Technology Transfer and Advancement Act of 1995 (Public Law 104-113), to encourage NRC staff participation in the development of consensus standards in support of its mission. NRC involvement also encourages standards developing organizations (SDOs) to develop codes, standards, and guides that can be endorsed by the NRC and implemented by the industry, and increases the likelihood that the standards that SDOs develop will meet both public and private sector needs.

The NRC uses voluntary consensus standards (VCSs) as a key part of our regulatory framework. Some standards are incorporated by reference into NRC regulations. NRC's regulations may be found at: <http://www.nrc.gov/reading-rm/doc-collections/cfr/>. The NRC staff also issues documents providing guidance on acceptable methods for complying with NRC regulations, such as Regulatory Guides. These guidance documents frequently reference consensus standards as acceptable methods for compliance with NRC regulations. Regulatory Guides are cataloged here:

<http://www.nrc.gov/reading-rm/doc-collections/management-directives/>

The NRC's reasons for using standards include providing the level of regulatory certainty and predictability desired by stakeholders, improving efficiency and transparency, providing regulations and guidance of high technical quality, and accessing the broad range of technical expertise and experience of the individuals who are represented on many consensus standards organizations. Participation in standards development minimizes the expenditure of NRC resources that would otherwise be necessary to develop regulations and guidance which provide the technical depth and level of detail of consensus standards.

NRC is working with several standards developing organizations to update voluntary consensus standards that may be applied to license amendments for existing light water reactors or new nuclear plant construction, including advanced reactor technologies and small modular reactors. The NRC cooperated with the U.S. Department of Energy, the National Institute of Standards and Technology (NIST), and the American National Standards Institute (ANSI) to establish the Nuclear Energy Standards Coordination Cooperative (NESCC). Formed in 2009, and continuing to meet two to three times per year, the group is open to standards developing organizations (SDOs) and all stakeholders in the development and application of standards related to nuclear energy technology, including operating and proposed new power plants. Its goals are to identify standards needs, prioritize standards for development or revision, and initiate or support collaboration in writing standards. The NESCC has established task groups to examine standards in specific technical areas, such as concrete and welding. In addition, an effort is under way to compile a database of standards referenced in NRC regulations and guidance.

The NRC intends to continue participating in the NESCC and other cooperative efforts to close technical and regulatory gaps through development and application of consensus standards. Standards continue to provide a critical element in our safety mission. For more information, the NRC website on standards development is at: <http://www.nrc.gov/about-nrc/regulatory/standards-dev.html>.

2. Please list the government-unique standards your agency used in lieu of voluntary consensus standards during FY 2012.

Ans.: 0

3. Please list the Voluntary Consensus Standards (VCS) your agency substituted for Government Unique Standards (GUS) in FY 2012 as a result of review under Section 15(b)(7) of OMB Circular A-119.

Ans.: 0

4. Please provide the total number of Voluntary Consensus Standards your agency BEGAN to use during FY 2012: Optional: If possible, also please provide the total

number of Non-consensus Standards that are developed in the private sector your agency used during FY 2012. In addition, please provide your agency's rationale for using the Non-consensus Standards that are developed in the private sector counted in this question.

Ans.: Voluntary Consensus Standards: **17**

VCSs Used in Regulation:

None

VCSs Used in Regulatory Guidance:

1. IEEE Std. 603-2009, "Criteria for Safety Systems for Nuclear Power Generating Stations," was endorsed in Revision 2 of RG 1.106, "Thermal Overload Protection for Electric Motors on Motor-Operated Valves," February 2012.
2. IEEE Std. 741-2007, "Protection of Class 1E Power Systems and Equipment in Nuclear Power Generating Stations," was endorsed in Revision 2 of RG 1.106, "Thermal Overload Protection for Electric Motors on Motor-Operated Valves," February 2012.
3. ANSI N14.5-1997, "Radioactive Materials - Leakage Tests on Packages for Shipment," was endorsed in Revision 1 of RG 7.4, "Leakage Tests on Packages for Shipment of Radioactive Material," March 2012.
4. ASTM C1671-2007, "Standard Practice for Qualification and Acceptance of Boron Based Metallic Neutron Absorbers for Nuclear Criticality Control for Dry Cask Storage Systems and Transportation Packaging," was endorsed with exceptions in Revision 1 of RG 7.7, "Administrative Guide for Verifying Compliance with Packaging Requirements for Shipping and Receiving of Radioactive Material," March 2012.
5. NUC-001-2, "Nuclear Plant Interface Coordination," North American Electric Reliability Corporation, 2010, was endorsed in Revision 1 of RG 1.93, "Availability of Electric Power Systems," March 2012.
6. ANSI/HPS N13.39-2001, "Design of Internal Dosimetry Programs," was endorsed in Revision 2 of RG 8.24, "Health Physics Surveys During Enriched Uranium-235 Processing and Fuel Fabrication," June 2012.
7. ANSI N323A-1997, "Radiation Protection Instrumentation Test and Calibration, Portable Survey Instruments," IEEE, 1997, was endorsed in Revision 2 of RG 8.24, "Health Physics Surveys During Enriched Uranium-235 Processing and Fuel Fabrication," June 2012.

8. NCRP Report No. 65, "Management of Persons Accidentally Contaminated with Radionuclides," 1980, was endorsed in Revision 2 of RG 8.24, "Health Physics Surveys During Enriched Uranium-235 Processing and Fuel Fabrication," June 2012.
9. NCRP Report No. 112, "Calibration of Survey Instruments Used in Radiation Protection for the Assessment of Ionizing Radiation Fields and Radioactive Surface Contamination," 1991, was endorsed in Revision 2 of RG 8.24, "Health Physics Surveys During Enriched Uranium-235 Processing and Fuel Fabrication," June 2012.
10. ASME AG-1, "Code on Nuclear Air and Gas Treatment," 2003, was endorsed in Revision 2 of RG 8.24, "Health Physics Surveys During Enriched Uranium-235 Processing and Fuel Fabrication," June 2012.
11. ASME N509-2002 (reaffirmed 2008), "Nuclear Power Plant Air-Cleaning Units and Components," was endorsed in Revision 4 of RG 1.52, "Design, Inspection, and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants," September 2012.
12. ASME N510-2007, "Testing of Nuclear Air-Treatment Systems," was endorsed in Revision 4 of RG 1.52, "Design, Inspection, and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants," September 2012.
13. ASME N511-2007, "In-Service Testing of Nuclear Air Treatment, Heating, Ventilating, and Air-Conditioning Systems," was endorsed in Revision 4 of RG 1.52, "Design, Inspection, and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants," September 2012.
14. ASME AG-1-2009, "Code on Nuclear Air and Gas Treatment," including the 2010 Addendum 1a and the 2011 Addendum 1b, was endorsed in Revision 4 of RG 1.52, "Design, Inspection, and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants," September 2012.
15. ASTM D3803-1991, "Standard Test Methods for Nuclear-Grade Activated Carbon," Reapproved 2009, was endorsed in Revision 4 of RG 1.52, "Design, Inspection, and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants," September 2012.

16. NFPA 90A, "Standard for the Installation of Air-Conditioning and Ventilation Systems," 2002, was endorsed in Revision 4 of RG 1.52, "Design, Inspection, and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants," September 2012.
17. ANSI/ISA S7.3-R1981, "Quality Standards for Instrument Air," was endorsed in Revision 1 of RG 1.68.3, "Preoperational Testing of Instrument and Control Air Systems," September 2012.

Other Technical Standards: **0**

Rationale: N/A

5. Please enter the Voluntary Consensus Standards Bodies (VCSB) in which your agency participated in during FY 2012.

Ans.: **16**

<u>Voluntary Consensus Standards Body</u>	<u>Acronym</u>
American Concrete Institute	ACI
American Institute of Steel Construction	AISC
American National Standards Institute	ANSI
American Nuclear Society	ANS
American Society for Testing and Materials	ASTM
American Society of Civil Engineers	ASCE
American Society of Mechanical Engineers	ASME
American Welding Society	AWS
Health Physics Society	HPS
Institute of Electrical and Electronic Engineers	IEEE
Institute of Nuclear Materials Management	INMM
International Society of Automation	ISA
International Organization for Standardization/International Electrotechnical Commission / International Electrotechnical Commission	ISO/IEC

National Association of Corrosion Engineers	NACE
National Council of Radiation Protection and Measurements	NCRPM
National Fire Protection Association	NFPA

6. Please provide the total number of your agency's representatives who participated in voluntary consensus standards activities during FY 2012 and the total number of activities these agency representatives participated in.

Ans.:

Agency Representatives: **188**

Activities: **454**

7. Please provide any conformity assessment activities (as described in "Guidance on Federal Conformity Assessment Activities" found in the Federal Register, Volume 65, Number 155, dated August 10, 2000) in which your agency was involved in FY 2012.

Ans.: None

8. Please provide an evaluation of the effectiveness of Circular A-119 policy and recommendations for any changes.

Ans.:

The NRC believes that the Circular provides appropriate direction and encouragement for federal agencies to develop internal agency-wide guidelines. The circular also provides sufficient and reasonable flexibility for each agency to make an independent determination regarding its participation on voluntary consensus bodies and use of developed standards.

The NRC is following the ongoing effort to review and revise Cir. A-119, and we will provide agency comments at appropriate points in the process. At this time, we do not foresee significant effects on NRC processes as a result of proposed changes to the Circular.

9. Please provide any other comments you would like to share on behalf of your agency.

Ans.: No comment

10. Please use this box to provide any additional comments on how your agency currently reports its use of voluntary consensus standards:

10-1. Question removed by NIST

10-2. Question removed by NIST

10-3. Question removed by NIST

10-4. Does your agency report standards that it uses for guidance purposes (as opposed compliance purposes)? (a) Yes; (b) No; (c) Not applicable.

Ans.: **Yes**

10-5. Does your agency report use of standards from non-ANSI accredited standards developers, industry consortia groups, or both? (a) non-ANSI Accredited; (b) Consortia; (c) Both; (d) Neither; or (e) Not applicable.

Ans.: **D**

10-6. Does your agency have a schedule for periodically reviewing its use of standards for purposes of updating such use? (a) Yes; (b) No

Ans.: **Yes**

10-7. How often does your agency review its standards for purposes of updating such use? [Enter the number of years]

Ans.: **5**