



THE SECRETARY OF COMMERCE
Washington, D.C. 20230

June 16, 2008

The Honorable Jim Nussle
Director, Office of Management and Budget
Washington, DC 20503

Dear Mr. Nussle:

I enclose the *Eleventh Annual Report on Federal Agency Use of Voluntary Consensus Standards and Conformity Assessment*. This document represents activities administered by Federal agencies during FY 2007, as required under Public Law 104-113, the National Technology Transfer and Advancement Act, and Office of Management and Budget (OMB) Circular A-119. I am pleased to submit this report to OMB for review and subsequent forwarding to Congress.

As this report demonstrates, Federal agencies continue to rely on private-sector standards for their regulatory and procurement needs, and understand the benefits from doing so. Reported use of government-unique standards in lieu of voluntary consensus standards is at the lowest level in seven years, and continues to represent a very small percentage of overall standards used by the Government.

Furthermore, Federal agencies continue to develop a better understanding of the requirements set forth in the Act and the Circular, resulting in more consistent interpretation and reporting of agency activities. The enclosed report contains the most accurate data compiled to date regarding Federal agencies' use of government-unique standards instead of voluntary consensus standards.

If you require further information, please contact Mary Saunders, Chief, Standards Services Division, National Institute of Standards and Technology, at (301) 975-2396.

Sincerely,

Carlos M. Gutierrez

Enclosure

NISTIR 7503

Eleventh Annual Report on Federal Agency Use of Voluntary Consensus Standards and Conformity Assessment

Mary F. Donaldson
Standards Coordination and Conformity Group
Standards Services Division
Technology Services

NIST
**National Institute of
Standards and Technology**
U.S. Department of Commerce

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May 2008



U.S. Department of Commerce
Carlos M. Gutierrez, Secretary

National Institute of Standards and Technology
James M. Turner, Deputy Director

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Summary Report on Federal Agency Use of Private Sector Standards and Conformity Assessment Activities for FY 2007

1.0 – Executive Summary

The U.S. Department of Commerce presents this summary report for the Office of Management and Budget (OMB) in compliance with OMB Circular A-119 and Public Law 104-113, the National Technology Transfer and Advancement Act (NTTAA). As required by Section 9 of the Circular, this report, prepared by the National Institute of Standards and Technology (NIST), describes activities related to the use of voluntary consensus standards (VCSs) by 26 federal agencies during fiscal year (FY) 2007.

Since the inception of the NTTAA, Federal agencies have continued to make progress in relying on voluntary consensus standards in support of their regulatory and procurement activities. NIST, through its Standards Incorporated by Reference database, independently tracks governmental use of private-sector standards in regulation and procurement. As of the date of this report, NIST has identified more than 20000 citations of standards incorporated by reference in procurement and regulatory documents. This online interactive database <<http://standards.gov/sibr/query/index.cfm>> demonstrates the extensive use of voluntary standards throughout the U.S. Government.

For FY 2007, federal agencies reported 350 new uses of VCSs. In contrast, federal agencies promulgated only two new government-unique standards in lieu of VCSs during the fiscal year, bringing the total number of government-unique standards used in lieu of VCSs to 48. The continued adoption of significant numbers of VCSs and the low rate of adoption of new government-unique standards in lieu of VCSs illustrates the success that the NTTAA continues to have in encouraging agencies to look first to voluntary consensus standards to meet their regulatory, procurement and conformity assessment needs rather than to develop government-unique standards.

Agencies reported 3370 personnel participating in a total of 497 standards-developing organizations, representing an all time high for organizations with federal participation.

Reports for FY 2007 show that agencies and affected stakeholders continue to realize benefits from federal participation in the development and adoption of VCSs to support agency missions. These adoptions result in cost savings to federal agencies, to the Nation's businesses, and ultimately to the taxpayer through reduced injuries and deaths, increased transactional efficiencies, reduced administrative burdens, and lower costs of products and services.

During FY 2007, several agencies reported substantial benefits from their adoption and use of voluntary consensus standards. The Department of the Interior's (DOI) Bureau of Reclamation participation with Institute of Electrical and Electronics (IEEE) standards development allows DOI to ensure that the hydroelectric power equipment standards developed will result in equipment that meets the needs of the Nation's western electric power grid; helps to avoid economically disruptive (billion dollar) blackouts; and enhances the safety of the hydroelectric facilities under DOI's responsibility. In addition, the Nuclear Regulatory Commission achieves both cost reduction and time savings through endorsement of the American Society of Mechanical Engineers boiler code, thereby avoiding the

independent development of regulatory requirements for construction, in-service inspection and in-service testing of nuclear power plant components. These examples illustrate a few of the various ways the government and the taxpayer reap benefits from the development, adoption and use of voluntary consensus standards.

2.0 – Overview and Scope

NIST formulated this report in close consultation with OMB, based on inputs submitted to NIST by federal agencies in fulfillment of the requirements of OMB Circular A-119 and the reporting requirements of Section 12 of the NTTAA. The report describes federal agency activities related to the use of private-sector standards in regulation, procurement and conformity assessment during FY 2007. A list of reporting agencies may be found in Appendix A.

3.0 – Federal Agency Use of Standards

The OMB Circular requires that federal agencies use voluntary consensus standards in lieu of government-unique standards in their regulatory and procurement activities. However, a federal agency is given the discretion to decide whether to use existing voluntary consensus standards if the agency determines that use of such standards would either be inconsistent with applicable laws or otherwise impractical. The Circular also directs agencies to establish a process for continuing review of their use of standards for purposes of updating such use, including substitution of private-sector standards for government-unique standards wherever possible.

3.1 – Government-Unique Standards Used in Lieu of Voluntary Consensus Standards

The OMB Circular requires that agencies report their use of standards on either a “categorical” or a “transactional” basis. Those agencies that report on a “categorical” basis are not required to list each instance that a government-unique standard is used in lieu of a private-sector standard in procurement actions. Such agencies are required to have a system in place to ensure that government-unique standards are developed only when suitable private-sector standards are not available for use. At present, only the Department of Defense (DoD) and the National Aeronautics and Space Administration (NASA) consistently report on a “categorical” basis. For all agencies, in those cases when government-unique standards are required because private-sector standards do not exist, use of the government-unique standard is not subject to reporting.

Table 3.1 illustrates the cumulative use of government-unique standards (that is, the total number used, by agency and the U.S. Government as a whole, by year) in lieu of private-sector standards since FY 1997, as well as the number of government-unique standards introduced and discontinued in each fiscal year. During FY 2007, federal agencies reported that they incorporated two new government-unique standards and withdrew 27 from the report. The Department of Labor (DOL) reported two new government-unique standards, while the Environmental Protection Agency (EPA) removed 27 government-unique standards from its report after an internal review. The review concluded 27 of those that had been previously reported did not meet the criteria for being in lieu of existing private sector standards.

Agency¹	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
USDA									1	1	1
HHS	3	3	3	3	3	3	3	2	2	4	4
HUD				2	2	2	2	2	2	2	2
DOL					1	2	4	5	5	6	8
DOT	1	2	2	2	2	3	3	3	3	3	3
EPA		3	28	29	40	45	50	50	50	50	23
GSA				3	2	2	3	2	2	3	3
NARA				1	1	1	1	1	1	1	1
CPSC				1	1	1	2	2	2	2	2
GPO				4	4	4	4	4	0	0	0
ACCESS										1	1
New Uses	4	4	25	12	12	7	9	1	1	5	2
Discontinued					1			2	4	0	27
Total In Use	4	8	33	45	56	63	72	71	68	73	48

Appendix C lists the government-unique standards promulgated by agencies in 2007, along with the rationale for not using the specified relevant voluntary consensus standard. For a complete listing of the government-unique standards used in lieu of voluntary consensus standards and the justifications from FY 1997 through FY 2007, see NIST’s Standards website <<http://standards.gov/NTTAA/agency/index.cfm>>.

3.2 – New Uses of Voluntary Consensus Standards (VCSs) By Federal Agencies

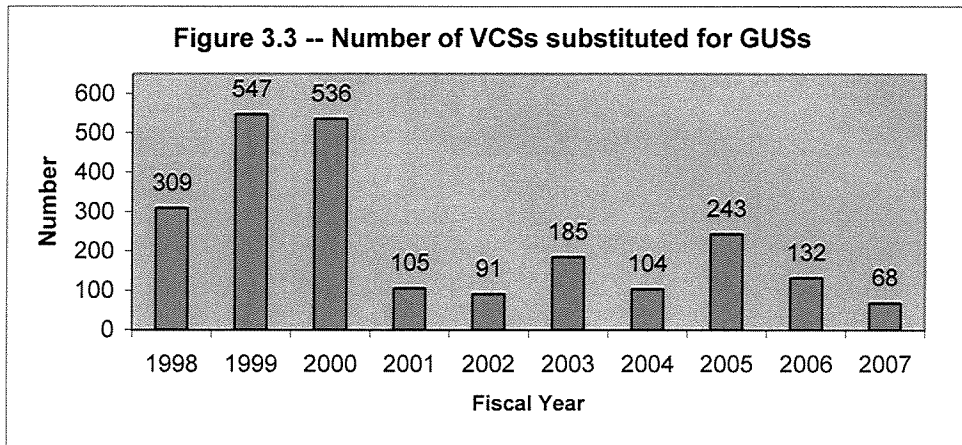
For FY 2007, federal agencies reported the adoption of 350 new Voluntary Consensus Standards. Three agencies, the Departments of Energy, Treasury and Defense, account for nearly 90 percent of the reported new uses.

3.3 – Current Agency Reporting on Voluntary Consensus Standards Substituted for Government-Unique Standards

Federal agencies also report annually on the number of voluntary consensus standards that they have substituted for government-unique standards during the year. Figure 3.3 illustrates the substitutions for each year since FY 1998. In FY 2007, federal agencies substituted 68 voluntary consensus standards for government-unique standards.² After an intense initial effort to substitute many government-unique standards, there has been an average of about 133 substitutions a year since 2001.

¹ See Appendix A for list of agency acronyms.

² Government-unique standards being substituted include the universe of GUSs, i.e., those in use prior to the implementation of NTTAA reporting, those that were not ‘in lieu of VCSs’, and those that were in lieu of VCSs. Since NIST began collecting data, there have been 2470 reported substitutions of VCSs for GUSs across agencies. While we do not know the entire universe of GUSs, we know from published sources that DoD (the largest user of GUSs) still uses over 20000 GUSs counting military, federal and NATO specifications and as of FY 2006 was using more than 9200 private-sector standards. 7400 private-sector standards were adopted by DoD before 1997.

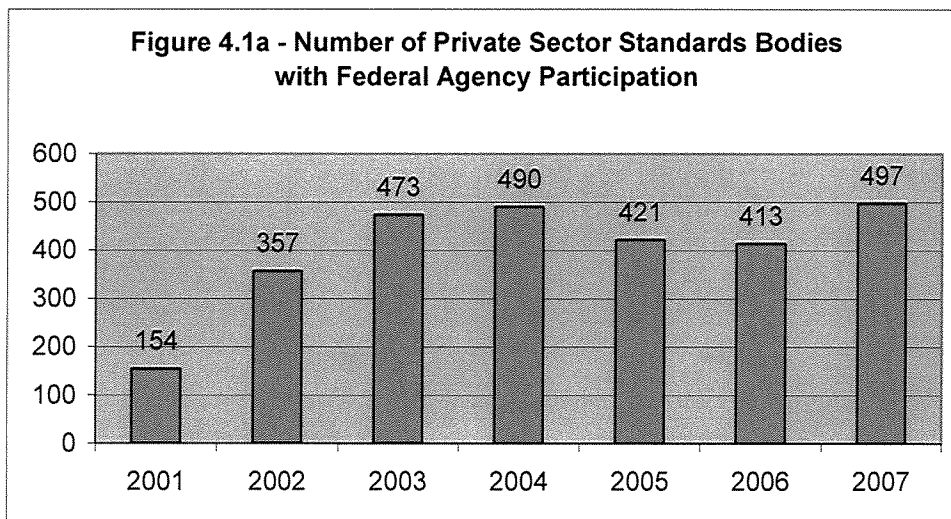


4.0 – Federal Participation in Private Sector Standards Activities

OMB Circular A-119 states that federal agencies “must consult with voluntary consensus standards bodies, both domestic and international, and must participate with such bodies in the development of voluntary consensus standards when consultation and participation is in the public interest and is compatible with their missions, authorities, priorities, and budget resources.” The Circular further declares “agency support provided to a voluntary consensus standards activity must be limited to that which clearly furthers agency and departmental missions, authorities, priorities, and is consistent with budget resources.”

4.1 – Participation Data for FY 2007

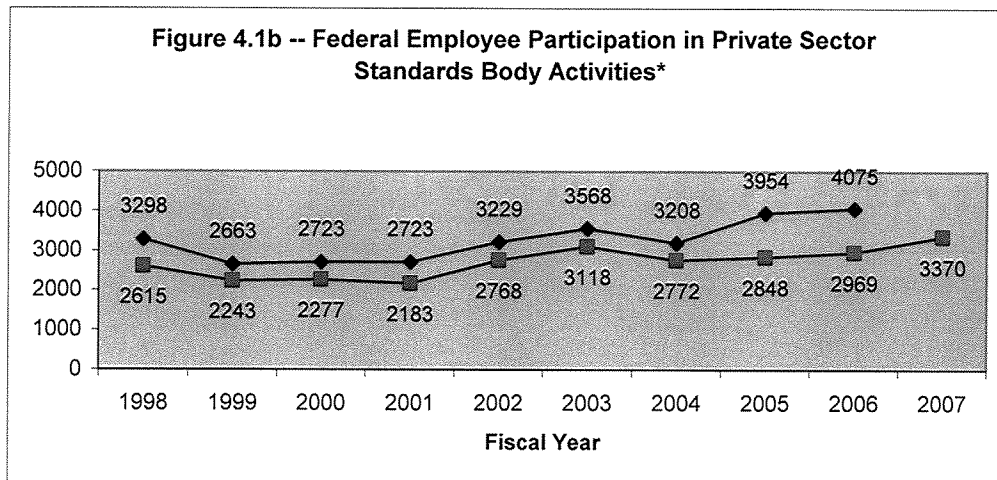
In FY 2007, agencies reported participation in 497 private sector standards bodies, compared to 413 in FY 2006, reflecting a 20 percent increase and an all-time high. (See Figure 4.1a.) The list of organizations includes American National Standards Institute (ANSI), accredited voluntary consensus standards developers, other (non-ANSI accredited) standards developers, industry and trade associations, international organizations, and consortia.



Federal agencies are also required by OMB to report the number of federal employees who participate in private sector standards bodies. This includes not only those who serve on

technical standards development committees, subcommittees, or workgroups, but also those who participate in management activities, annual meetings, or seminars. In FY 2007, agencies reported that 3370 employees participated in private-sector standards body activities. Among agencies reporting this data, this statistic reflects an increase of 405 participants over the previous year. Figure 4.1b illustrates total federal employee participation in private sector standards body activities since FY 1998. Data detailing FY 2007 participation for each agency is provided in Appendix B.

A complete listing of the standards developing organizations in which federal agencies participated can be viewed in the extended appendices to this report located at <http://standards.gov/NTTAA/agency/index.cfm>.



* The upper series includes DoD participation data prior to 2007 while the lower series excludes DoD participation.

5.0 – Federal Agency Conformity Assessment Activities

The NTTAA requires NIST to coordinate federal, state, and local standards activities and conformity assessment activities with private-sector standards activities and conformity assessment activities, with the goal of eliminating unnecessary duplication and complexity in the development and promulgation of conformity assessment requirements and measures. Federal conformity assessment activities are a means of providing assurance that the products and services regulated or procured by federal agencies have the required characteristics and/or perform in a specified manner. Agency conformity assessment procedures may include: sampling and testing, inspection, accreditation, certification; licensing; product listing; the submission to an agency of manufacturing, operational, and related data for review; manufacturer self-declaration of conformity to agency requirements; mandatory labeling and advertising requirements; establishment of national requirements, which are adopted/enforced at state and local government levels; issuance of regulatory guidelines; pre-marketing approval requirements; post-marketing monitoring requirements; and the conduct of environmental impact assessments. NIST publishes a number of directories and reports on conformity assessment-related issues and maintains a Web site <<http://ts.nist.gov>> that provides a one-stop-shopping source for information on various conformity assessment issues.

Throughout the fiscal year, numerous agencies worked with NIST support to design and implement appropriate and effective conformity assessment schemes for products related to homeland security, health and safety, and the environment. A measurement and standards infrastructure for three homeland security technology areas, namely radiological and nuclear detectors, biometrics readers and emergency communications equipment, was developed through these interagency efforts. Also, four other government agencies – the Environmental Protection Agency (EPA), the Consumer Product Safety Commission (CPSC), the Food and Drug Administration (FDA), and the Department of Justice’s National Institute of Justice (NIJ) as well as the NIST worked with standards developers, accreditation bodies, and industry representatives to enhance programs and initiatives in conformity assessment for electronics recycling, water conservation, toy safety, electrical medical devices, and body armor.

The full report of FY 2007 agency conformity assessment activities may be found in the *Addendum to the Eleventh Annual Report on Federal Use of Voluntary Consensus Standards and Conformity Assessment* <<http://standards.gov/NTTAA/agency/index.cfm>>.

6.0 – Evaluation of the Effectiveness of OMB Circular A-119

During FY 2007, the majority of reporting agencies either had no comment on the effectiveness of OMB Circular A-119 or indicated that they found the Circular effective in helping them manage their standards development programs. However, several agencies did provide substantive comments concerning recommended changes to the Circular and these are summarized below.³

- Department of Defense (DoD) questions the benefit of collecting report data and recommends reviewing and modifying the A-119 reporting requirements to include more meaningful information, such as examples of positive outcomes from participation in non-government standards activities and reliance on non-government standards.
- Department of Transportation (DOT) recommends that the “OMB Circular A-119 be revised to require NTTAA reporting only on instances of government-unique standards being used in lieu of voluntary consensus standards. The Circular should continue the policy that there is no requirement to report on government-unique standards developed where a voluntary consensus standard is unavailable, per sections 6g and 9a of the Circular.”
- Health and Human Services (HHS) Centers for Disease Control expressed concern over the limitation of constraining the reporting to just Standards Developing Organizations. This results in the “under-reporting of our activity with (other) outside partners...”
- The Department of Homeland Security proposes the reporting move away from providing data that is both difficult to obtain and of questionable accuracy, and instead focus more on reporting standards development activities across agency programs and components.

³ It is within OMB’s purview to consider and respond to these comments, as appropriate.

- The Department of Veterans Affairs suggested the Circular include a method to encourage agencies to be more involved in identifying useful standards and be responsible for enforcing compliance.

The full text of agency comments may be found in the *Addendum to the Eleventh Annual Report on Federal Use of Voluntary Consensus Standards and Conformity Assessment* located at <<http://standards.gov/NTTAA/agency/index.cfm>>.

7.0 – The Interagency Committee on Standards Policy (ICSP)

During FY 2007, 60 individuals served on the ICSP including agency Standards Executives, their alternates, NIST support staff, and representatives from OMB and the Executive Office of the President. The ICSP met four times in FY 2007, including one joint meeting with the American National Standards Institute’s Government Member Forum. Information concerning the ICSP including membership, charter and meeting minutes may be found at the following link: <<http://standards.gov/icsp/query/index.cfm>>.

8.0 – Success Stories: Examples from Federal Agencies

Leveraging the private-sector standards development process for government purposes has led to significant resource savings for agencies and stakeholders throughout the Federal Government. Some examples of successes from fiscal year 2007 are:

- Department of the Interior (DOI)

The Department of the Interior’s Bureau of Reclamation is the second largest producer of hydroelectric power in the western United States. The agency’s Hydropower Technical Services Group is responsible for developmental research, computer model analysis, operational testing, and specification review for stability enhancement of Reclamation’s interconnection to the bulk power system. This group’s participation in IEEE standards development allows DOI to ensure that the hydroelectric power equipment standards which are developed will result in equipment that meets the needs of the Nation’s western electric power grid; helps to avoid economically disruptive (billion dollar) blackouts; and enhances the safety of the hydroelectric facilities under DOI’s responsibility.

- Nuclear Regulatory Commission (NRC)

An example of a standards success for NRC involves the endorsement of Sections III (Construction of Nuclear Facility Components) and XI (In-service Inspection of Nuclear Power Plant Components) of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code and the ASME Code for Operation and Maintenance of Nuclear Power Plants (In-service Testing of Nuclear Facility Pumps and Valves) in NRC’s regulations and regulatory guidance. These ASME Codes are developed through the consensus process, and endorsement of the ASME Code by the NRC provides a method of incorporating rules into the regulatory process that are acceptable to the NRC and have received industry participation in their development. If the NRC did not take action to endorse the ASME Code, the NRC would either have had to develop independently the regulatory requirements for construction, in-service inspection (ISI), and in-service testing

(IST) of Nuclear Power Plant Components, or to establish the acceptable criteria and methods for construction, ISI, and IST on a case-by-case basis. Additional agency success stories may be found in the responses to Question 1 in the *Addendum to the Eleventh Annual Report on Federal Use of Voluntary Consensus Standards and Conformity Assessment* located at: <<http://standards.gov/NTTAA/agency/index.cfm>>.

9.0 – Challenges and Opportunities

As of FY 2007, eleven years since the start of the NTTAA reporting requirement, federal agencies indicate they use 48 government-unique standards in lieu of voluntary consensus standards. This small number of government-unique standards reflects a real and continuing reliance on voluntary consensus standards. The Act has successfully encouraged agencies to look first to use voluntary consensus standards to meet their needs rather than to develop unnecessary government-unique standards.

NIST continues to assist federal agencies and their stakeholders involved in standards management. NIST hosts the internet portal <<http://standards.gov>>, providing a one-stop e-government location for information related to the use of voluntary consensus standards. The website offers background, materials, useful links, and search tools for locating information about the use of standards in government including a searchable database, “Standards Incorporated by Reference” <<http://standards.gov/sibr/query/index.cfm>>. The website also serves as a forum for providing ongoing, practical guidance, tools, and information needed by agencies to successfully implement the NTTAA, as well as a means to electronically report standards activities required by the NTTAA and OMB Circular.

Building on the success of the NTTAA in reducing reliance on government-unique standards along with the trend towards e-government, NIST is working with agencies to continue shifting towards reporting more timely and accurate information to the standards community while refining the information to better reflect the intent of the NTTAA and direction from OMB. In addition, NIST is working with agency standards executives and OMB to integrate standards participation and use more directly into the missions, decision making processes, and strategic goals of the federal agencies.

In addition to preparing and transmitting the required annual reports to OMB, NIST will continue to provide resources on <standards.gov> to facilitate federal agency participation in the development and use of private sector standards. NIST will also work with agencies as they establish websites that reflect required NTTAA and OMB Circular A-119 data and up-to-date information on agency standards activities. The annual report fulfills the reporting requirements of both the NTTAA and OMB Circular. Expanded use of <standards.gov> and agency websites will consolidate information gathering and support efficient communication between agencies and stakeholders.

Appendix A -- FY 2007 List of Reporting Federal Agencies

Agency	Acronym	Standards Program Website
Department of Agriculture	USDA	*
Department of Commerce	DOC	http://ts.nist.gov/commerce/
Department of Defense	DoD	http://www.dsp.dla.mil
Department of Energy	DOE	http://www.hss.energy.gov/NuclearSafety/techstds/index.html
Department of Education	ED	*
Department of Health and Human Services	HHS	*
Department of Homeland Security	DHS	http://www.dhs.gov/xfrstresp/standards/
Department of Housing and Urban Development	HUD	http://www.hud.gov/offices/hsg/sfh/mps/mpshome.cfm
Department of the Interior	DOI	*
Department of Justice	DOJ	http://www.ojp.gov/nij/topics/technology/standards-development.htm
Department of Labor	DOL	*
Department of State	DOS	*
Department of Transportation	DOT	Various – see DOT’s report on http://standards.gov/NTTAA/agency/index.cfm
Department of the Treasury	TRES	http://www.treas.gov/offices/international-affairs/standards/
Department of Veterans Affairs	VA	http://www1.va.gov/oamm/
Environmental Protection Agency	EPA	http://www.epa.gov/oppt/p2home/pubs/programs/voluntary.htm
General Services Administration	GSA	http://www.gsa.gov Home>About GSA>Reference>Supply Standards
National Archives and Records Administration	NARA	*
National Aeronautics and Space Administration	NASA	http://standards.nasa.gov
National Science Foundation	NSF	*
Consumer Product Safety Commission	CPSC	http://www.cpsc.gov/volstd/standards.html
Federal Communications Commission	FCC	*
Federal Trade Commission	FTC	*
Nuclear Regulatory Commission	NRC	http://www.nrc.gov/about-nrc/regulatory/standards-dev.html
Government Printing Office	GPO	*
Access Board	ACCESS	http://www.access-board.gov/gs.htm

*Not available or not reported

Appendix B -- FY 2007 Federal Agency Information on Participation/Adoption of Voluntary Standards Activities Required by OMB Circular A-119

Agency	Government unique standards used in lieu of voluntary consensus standards	Voluntary consensus standards substituted for government unique standards	Voluntary consensus standards used this year (new uses)	Employee participation in voluntary consensus standards bodies	Voluntary consensus standards bodies with agency participation
USDA	1	0	0	98	34
DOC	0	0	0	464	108
DoD	*	67	57	NR	123
DOE	0	0	150	895	81
ED	0	0	0	4	5
HHS	4	0	0	793	170
DHS	0	0	14	125	49
HUD	2	0	0	4	5
DOI	0	0	4	300	63
DOJ	0	0	0	0	0
DOL	8	0	0	60	18
DOS	0	0	0	8	1
DOT	3	0	4	198	48
TRES	0	0	104	3	2
VA	0	0	0	4	20
EPA	23	0	3	44	25
GSA	3	0	8	23	26
NARA	1	0	0	16	13
NASA	*	1	0	105	22
NSF	0	0	0	4	3
CPSC	2	0	1	26	13
FCC	0	0	1	28	13
FTC	0	0	0	0	0
NRC	0	0	4	163	16
GPO	0	0	0	0	0
ACCESS	1	0	0	5	6
Totals	48	68	350	3370	**

*Agencies reporting on a categorical basis per OMB Circular A-119, Section 12.

** Total not provided. Total would result in multiple counting due to participation in standards bodies by two or more federal agencies.

Appendix C -- FY 2007 Government-Unique Standards used in lieu of Voluntary Consensus Standards

1	Agency:	Department of Labor (DOL)
	Government-Unique Standard:	29 CFR 1910 Subpart S - Electrical Standard (Incorporated: 2007) [Incorporated: 2007]
	Voluntary Standard:	NFPA 70 - National Electric Code NFPA 70E - Electrical Safety Requirement for Employee Workplaces. ANSI/IEEE C2 - National Electrical Safety Code ANSI/ASME B30.4 - Portal, Tower, and Pedestal Cranes NFPA 33 - Spray Application Using Flammable or Combustible Materials ANSI Z133.1 Arboricultural Operations for Pruning, Repairing, Maintaining, and Removing Trees, and Cutting Brush
	Rationale:	Several voluntary consensus standards were relied upon for the various provisions in the final rule, however, no single VCS is available to cover all the workplace applications that are addressed by OSHA. The Agency believes that it would be less burdensome for the regulated community to use one OSHA standard rather than purchase and use the 6 individual consensus standards it used to write the rule.
2	Agency:	Department of Labor (DOL)
	Government-Unique Standard:	30 CFR Part 75 - Sealing of Abandoned Areas - Emergency Temporary Standard. [Incorporated: 2007]
	Voluntary Standard:	ACI 318-05 - Building Code Requirements for Structural Concrete and Commentary ACI 440.2R-02 - Design and Construction of Externally Bonded FRP Systems for Strengthening Concrete Structures ASTM E119-07 - Standard Test Methods for Fire Tests of Building Construction and Materials ASTM E162-06 - Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source
	Rationale:	Four consensus standards were relied upon for various provisions in the emergency temporary standard, but no one consensus standard is available that covered all of the topics covered by MSHA's Emergency Temporary Standard.