

FISCAL YEAR 2004
ANNUAL REPORT TO THE OFFICE OF MANAGEMENT AND BUDGET
- STANDARDS USE AND PARTICIPATION -

U. S. DEPARTMENT OF ENERGY

Standards Management: The Department of Energy (DOE) implements the federal guidance and requirements of OMB Circular A-119 (OMB A-119) and the statutory requirements of Public Law (PL) 104-113 (15 USC 272) regarding the use of voluntary consensus standards (VCSs) through specific Departmental directives (policies, orders, requirements, guides, and technical standards) and supporting programs and management systems.

The Department's overall standards activities are managed through the DOE-wide Technical Standards Program (TSP), established under the DOE Standards Executive within the Office of Environment, Safety and Health. (The TSP Internet address is <http://www.eh.doe.gov/techstds/>). The TSP provides the means for DOE to fully implement the policy and requirements of PL 104-113 and OMB A-119, and establishes a focus from which to promote the use of VCSs across DOE and to support active participation with Standards Development Organizations (SDOs).

The TSP also manages the development and maintenance of DOE internal standards, where SDO standards are not available to meet unique DOE technical needs and cannot be readily developed by an SDO. The TSP has procedures for converting DOE Technical Standards to VCSs, and has active interfaces and initiatives with SDOs.

The TSP also charters topical committees that coordinate standards development activities in specific technical areas across DOE, and with counterparts in other federal agencies, industry, academia, and national and international SDOs. The topical committees are comprised of subject matter experts from across the DOE community, and encompass such diverse areas as laboratory accreditation, metrology, fire protection, environmental management systems, meteorology, biota dose assessment, chemical safety, emergency management, and nuclear safety training. DOE topical committees may include observers and participants from other federal agencies, industry, academia, and SDOs.

The DOE Standards Executive actively participates with the Interagency Committee on Standards Policy (ICSP), with support from the DOE TSP. The DOE, Nuclear Regulatory Commission (NRC), and National Institute of Standards and Technology (NIST) conduct standards coordination meetings with key SDOs to review common standards needs and activities, identify issues, and coordinate development efforts. The DOE, NRC, and NIST also continue to cooperate in sponsoring U.S. participation with ISO's TC85 Nuclear Energy committees and working groups (presently under ASTM administration).

The DOE Information Technology (IT) Standards Program, in coordination with the DOE TSP, tracks IT standards development, coordinates with subject matter experts, adopts new or retires outdated standards, and maintains a Profile of Adopted Standards - primarily international and national standards (at http://cio.doe.gov/ITReform/ArchitectureStandards/repository_info.htm).

DOE's Office of Energy Efficiency and Renewable Energy (EERE), Codes and Standards Program (Internet address is http://www.eere.energy.gov/buildings/program_areas/codes.html) also conducts a legislatively mandated, multi-year effort to improve the energy efficiency in the Nation's buildings through energy efficiency standards, codes and guidelines for buildings, building equipment, and appliances. The Department is required to promulgate amended energy efficiency standards designed to achieve the maximum improvement in energy efficiency that the Secretary determines are technically feasible and economically justified. The Department's codes and standards development efforts in these areas are closely coordinated with SDOs and include early involvement of industry and state stakeholders and relevant federal agencies.

Under the President's National Energy Policy, DOE's Hydrogen, Fuel Cells & Infrastructure Technologies Program in EERE integrates activities in hydrogen technologies, including codes and standards (Internet address is: <http://www.eere.energy.gov/hydrogenandfuelcells/codes/>). The Program's objectives include working with national and international code and standards development organizations, code officials, industry experts, and national laboratory scientists to draft new model codes and equipment standards that cover emerging hydrogen technologies for consideration by the various code enforcing jurisdictions, and helping coordinate codes and standards activities to avoid duplication of effort.

Standards Use: DOE "uses" VCSs extensively in managing, operating, and regulating our diverse sites, laboratories, operations, facilities, and activities – over a range that includes nuclear weapons production, energy research, oil storage, hydroelectric power, accelerator operations, nuclear facility decommissioning, and fusion experiments. VCSs are consulted, referenced and applied in mission-related design, procurement, construction, operations, maintenance, emergency operations, and decommissioning efforts; in environment, safety and health management; in DOE research and development activities; and in security and safeguards programs.

For DOE reporting purposes, "use" means that a VCS has been cited, referenced, applied, or otherwise incorporated into DOE requirements, operations, and activities for the first time, or is in continued use, as noted below. For Fiscal Year 2004, DOE documented the use of 1,325 different VCSs. A VCS that is used by several different organizations or in different versions is reported as a single use by DOE. DOE also internally tracks the use of consortia standards (about 35 – all information technology), but these are not reported in that number.

The VCSs reported as used by DOE in this annual review are compiled from several sources that cite VCSs as acceptable means to meet requirements, as guidance, or as essential references for DOE and DOE contractors. These sources include: DOE Regulations (as an acceptable means to meet specific DOE requirements or as a reference); DOE Directives - policies, orders, manuals, guides (as an acceptable means to meet specific DOE requirements or as a reference); DOE contracts; and DOE safety basis documents (stated as a commitment or applied reference in DOE documented safety analyses, including safety analysis reports, standards/requirements identification documents, "work smart" standards sets, process safety management, and hazards analyses).

Other areas where DOE and its contractors use VCSs at DOE facilities and activities that may not be fully documented and reported include:

- ✓ writing procedures;
- ✓ establishing safety criteria (e.g., for worker job task analyses, fire protection, nuclear criticality safety, nuclear facility safety); and
- ✓ citing supporting references in internal DOE Technical Standards.

Very few VCSs (none for this reporting period) are mandated through DOE rules, regulations or DOE Directives. However, DOE is an agent in the development and maintenance of certain legislatively mandated building and appliance energy efficiency codes and standards, and in supporting and facilitating the development of hydrogen technology codes and standards. DOE more typically will cite specific VCSs as “acceptable means” for implementing requirements, and allow the use of equivalent alternatives. VCSs also may be cited in List B of DOE procurement contracts with its Management and Operation and Management and Integration contractors.

Summary: OMB A-119 requires that federal agencies report certain standards use and standards participation information to OMB via NIST. The DOE report is provided as Attachment 1, “FY 2004 DOE Annual Agency Report to OMB, Required Information for Agency Annual Report to NIST on Standards Use and Activities.” The following information summarizes that report:

DOE did not mandate the use of any government-unique standards in lieu of suitable voluntary consensus standards during FY 2004. DOE identified no additional voluntary consensus standards that have been substituted for government-unique standards.

DOE participated with 65 non-government standards bodies (about 43 are ANSI-affiliated VCS standards bodies). There were 729 agency employees participating in VCS activities (These individuals were involved in 1,497 activities due to multiple participations.) DOE used 1,325 VCSs on a continuing basis during FY 2004.

ATTACHMENT 1

FY 2004 DOE Annual Agency Report to OMB

The following information (with explanatory notes) has been developed for the OMB Annual Report and has been submitted to NIST to: (1) report the use of voluntary consensus standards within DOE, and: (2) report participation in standards development activities on behalf of DOE (by DOE staff and DOE contractor staff on behalf of DOE):

Required Information for Agency Annual Report to NIST on Standards Use and Activities

1. As required by P.L. 104-113, you **must** highlight all instances where the agency used government-unique standards in lieu of voluntary consensus standards during FY 2004. For each instance, you must identify the specific government-unique standard used as well as the voluntary consensus standard that was not selected. Equally as important, you must clearly state your agency's rationale for such use.

NONE for DOE for FY 2004

In addition, your report for FY 2004 should also include:

2. A list by name and acronym of the voluntary consensus standards bodies in which your agency participated during the reporting period.

See Attachment 2, "Standards Development Organizations (SDOs) with DOE or DOE Contractor Participation"

NOTE: FY 2004 count: 65 (43 are ANSI-affiliated)

3. The number of agency employees participating in voluntary consensus standards activities during this period.

729 for DOE FY 2004

NOTE: This number includes both DOE employees and DOE contractors.

4. The number of voluntary consensus standards that your agency used during FY 2004 based upon procedures set forth in Sections 11 and 12 of the Circular.

1325 for DOE FY 2004

NOTES: This reflects an increase of 138 additional standards being used this year. There are also consortia standards used by DOE (but not included in the count), primarily by the DOE IT Standards Program.

5. A description of how your agency currently reports its use of voluntary consensus standards. Specifically, please provide your agency's answers to the following questions:

- Does your federal agency report (a) only the first-time use of standards, (b) continued uses of standards, or (c) both first-time and continued uses of standards?

DOE reports: (c) both first-time and continued uses of standards.

There are perhaps over 80 DOE federal and contractor organizations using standards. Many are using a particular standard for the first time, others are discontinuing its use, and still others are continuing its use. It would be highly impractical and not very useful to discern use in these circumstances.

- Does your agency report (a) the total number of standards it uses or (b) each instance where the agency uses (i.e., references) a standard?

DOE reports: (a) the total number of standards it uses.

This total is based on counting a particular standard once, even if it is used in multiple versions, multiple times, with multiple organizations and functions. Reporting each instance where a standard is used would add several thousand to the DOE count.

- Does your agency report multiple editions of a single standard as one standard used or as multiple standards used?

DOE reports the use of multiple versions of a standard as a single use.

Many DOE contracts apply to multiple facilities at a site. The contract will list a set of standards a single time, but some standards may be applied to multiple facilities. Furthermore, multiple versions of each standard may be in use. For example, the applicable version of a standard may depend upon the construction or modification date of each facility. Consequently, there may be multiple uses of the standard and multiple versions applied for each listing.

- Does your federal agency report standards that it uses for guidance purposes (as opposed to compliance purposes)?

Yes, DOE reports standards used as guidance (as well as those used for compliance purposes).

Standards cited as guidance are reported where they are used in whole or in part to support DOE missions and functions. These are generally cited in DOE requirements as acceptable means to meet a requirement, and as technical references essential to implementing a requirement or standard. While standards cited in a DOE directive as guidance (or references) are not mandated for use, any alternative generally needs to be justified.

- Does your agency report use of standards from non-ANSI-accredited standards developers including industry consortia?

No, DOE does not report the use of non-ANSI-accredited standards.
However, DOE does track the use of consortia standards, primarily in the information technology area where about 35 consortia standards have been noted.

6. Identification of voluntary consensus standards that have been substituted by your agency for government-unique standards during the reporting period as a result of an agency review under section 15b (7) of the Circular.

NONE

7. An evaluation of the effectiveness of Circular A-119 policy and any recommendations for changes to the Circular.

OMB A-119 continues to be adequate.

You may also wish to report:

8. Any conformity assessment activities in which your agency has been involved in the reporting period as described in the Federal Register, Vol. 65, No. 155, Thursday, August 10, 2000, Guidance on Federal Conformity Assessment Activities;

Same Report – *this is essentially unchanged from previous years.*

9. Examples or case studies of your agency's standards successes.
10. Any additional information and/or comments you would like to provide.

ATACHMENT 1
 STANDARDS DEVELOPMENT AGENCIES
 WITH DOE OR DOE CONTRACTOR PARTICIPATION

#	Acronym	Standards Development Organizations	ANSI Affiliated
1	AACE	AACE International	
2	ACI	American Concrete Institute International	√
3	AGS	American Glovebox Society	√
4	AIAA	American Institute of Aeronautics and Astronautics	√
5	AIChE	American Institute of Chemical Engineers	
6	AIHA	American Industrial Hygiene Association	√
7	AIIM	Association for Information and Image Management	√
8	AISC	American Institute of Steel Construction	√
9	ANS	American Nuclear Society	√
10	ANSI	American National Standards Institute	√
11	ASA	Acoustical Society of America	√
12	ASCE	American Society of Civil Engineers	√
13	ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers	√
14	ASME	American Society of Mechanical Engineers	√
15	ASNT	American Society for Nondestructive Testing	√
16	ASQ	American Society for Quality	√
17	ASSE	American Society of Safety Engineers	√
18	ASTM	ASTM International	√
19	AWEA	American Wind Energy Association	√
20	AWS	American Welding Society	√
21	AWWA	American Water Works Association	√
22	BSSC	Building Seismic Safety Council	
23	CAM-I	Consortium for Advanced Manufacturing International	√
24	CIRMS	Council on Ionizing Radiation Measurements and Standards	
25	CRWI	Coalition for Responsible Waste Incineration	
26	CSI	Construction Specifications Institute	
27	CTI	Cooling Tower Institute	√
28	EIA	Electronic Industries Alliance	√
29	HFS	Human Factors Society	
30	HPS	Health Physics Society	√
31	IAEA	International Atomic Energy Agency	
32	IBC	International Building Code	

#	Acronym	Standards Development Organizations	ANSI Affiliated
33	ICBO	International Conference of Building Officials	
34	ICDD	International Center for Diffraction Data	
35	ICNIRP	International Commission on Non-Ionizing Radiation Protection	
36	ICRP	International Commission on Radiation Protection	
37	IEA	International Energy Agency	
38	IEC	International Electrotechnical Commission	
39	IEEE	Institute of Electrical and Electronics Engineers	√
40	IIE	Institute of Industrial Engineers	√
41	INMM	Institute of Nuclear Materials Management	√
42	IPC	Institute for Interconnecting and Packaging Electronic Circuits (IPC Association Connecting Electronics Industries)	√
43	ISA	Instrumentation, Systems, and Automation Society	√
44	ISO	International Organization for Standardization	
45	ITI	Information Technology Industry Council	√
46	NACE	National Association of Corrosion Engineers	√
47	NACLA	National Council of Laboratory Accreditation	
48	NBBPVI	National Board of Boiler and Pressure Vessel Inspectors	√
49	NCRP	National Council on Radiation Protection and Measurements	
50	NCSL	National Conference of Standards Laboratories	√
51	NEMA	National Electrical Manufacturers Association	√
52	NFPA	National Fire Protection Association	√
53	NHA	National Hydrogen Association	
54	NIRMA	Nuclear Information and Records Management Association	√
55	NSC	National Safety Council	√
56	NSF	NSF International	√
57	PMI	Project Management Institute	√
58	RIA	Robotics Industry Association	√
59	SAE	Society of Automotive Engineers International	√
60	SAVE	Society of American Value Engineers	
61	SES	Standards Engineering Society	
62	SIA	Security Industry Association	√
63	SPRI	Single Ply Roofing Institute	√
64	UL	Underwriters Laboratories	√
65	WRC	Welding Research Council	