

**DOE TECHNICAL STANDARDS
PROGRAM PROCEDURES**

DOE-TSPP-1-2013

September 2013

**DOE TECHNICAL STANDARDS PROGRAM
OVERVIEW AND RESPONSIBILITIES**

U.S. Department of Energy
Office of Nuclear Safety
Washington, D.C. 2058

CONTENTS

1.	SCOPE	1
1.1	Purpose	1
1.2	Applicability	1
2.	PROGRAM OVERVIEW.....	1
2.1	General.....	1
2.2	Technical Standards Program Procedures (TSPPs).....	4
3.	PROGRAM RESPONSIBILITIES.....	5
3.1	Cognizant Secretarial Officers (CSO), Program Senior Officials, and DOE Heads of Field Organizations	5
3.2	Chief Health, Safety and Security Officer (HS-1)	5
3.3	Director, Office of Nuclear Safety (HS-30)	5
3.4	Technical Standards Managers' Committee.....	5
3.5	Technical Standards Program Manager.....	5
3.6	Technical Standards Managers.....	6
3.7	Preparing Activity	7
3.8	Review Activity	8
3.9	Topical Committees.....	8
3.10	DOE Element Personnel	8
3.11	DOE Representative to Voluntary Consensus Standards Activity.....	8

ATTACHMENT A: DOE TECHNICAL STANDARDS MANAGERS' COMMITTEE CHARTER

1. SCOPE

1.1 Purpose

This procedure describes the responsibilities of persons who are charged with implementing the Department of Energy (DOE) Technical Standards Program (TSP).

1.2 Applicability

This procedure applies to all DOE Headquarters and field organizations, management and operating contractors, and laboratories (hereafter referred to collectively as Technical Standards Program (TSP) participants) working to the requirements of DOE Order (O) 252.1A, *Technical Standards Program*.

2. PROGRAM OVERVIEW

2.1 General

Through the proper selection and use of standards, DOE and its contractors can avoid costly duplication of effort and rework. Standards are used to transfer technology and standardize work processes to produce consistent acceptable results. They can be used to provide specific methods and techniques on “how to” implement DOE’s requirements. The methods and techniques addressed in standards involve a range of activities, including the following: (1) common and repeated use of rules, conditions, guidelines or characteristics for products or related processes and production methods, and related management systems practices, and (2) the definition of terms; classification of elements; delineation of procedures; specification of dimensions, materials, performance, designs, or operations; measurement of quality and quantity in describing materials, processes, products, systems, services, or practices; test methods and sampling procedures; or descriptions of fit and measurements of size or strength.

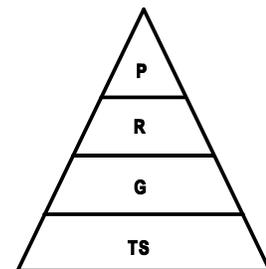
Standards are available from a number of different sources. For DOE, the preferred source of standards is from the voluntary consensus standard (VCS) community. This approach conforms with Federal requirements related to standards development and use established in Public Law (PL) 104-113 (15 U.S.C. 272) and Federal policy described in Office of Management and Budget (OMB) Circular A-119.

The VCSs are non-government standards, developed and maintained by non-government organizations. The voluntary consensus standard community includes international and national standards development organizations, such as the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC), the Institute of Electrical and Electronics Engineers (IEEE), ASTM International (ASTM) (formerly known as American Society for Testing and Materials), the American Nuclear Society (ANS), National Fire Protection Association (NFPA), ASME International (ASME) (formerly known as American Society of Mechanical Engineers), American Society of Civil Engineers (ASCE), and the American Concrete Institute (ACI). The American National Standards Institute (ANSI) is the administrator and coordinator of the United States private sector voluntary consensus standards and conformity assessment system. ANSI is the U.S. representative to ISO and IEC within the international standards community. Voluntary consensus standards bodies adhere to a number of strict and disciplined practices to ensure high quality standards are produced (e.g., adequate representation from affected communities including DOE, voting and challenge procedures, and third party audits).

DOE/contractor personnel are required by DOE O 252.1A to first make use of existing VCSs, where available and appropriate or adaptable for DOE purposes, in lieu of developing DOE Technical Standards (TS), except where use of VCSs is inconsistent with law or impractical. If no existing VCS is adequate, existing Government standards should be considered for meeting the DOE needs. VCSs may be adopted in whole, in part, or by reference. Government standards that may be used by DOE include, but are not limited to: General Service Administration (GSA) Federal Standards; Federal Information Processing Standards (FIPS) issued by the National Institute of Standards and Technology (NIST); Department of Defense Military Standards (DoD MILSTDs); and standards and specifications that are developed under the procedures of the Federal Property Management Regulation (FPMR) 101-29. State and local government standards may also be considered where appropriate.

A DOE Technical Standard should be prepared only when it is justifiable to do so, and when neither an adequate VCS nor Government standard exists nor can be developed on a schedule consistent with Department priorities. In cases where a DOE Technical Standard is developed, DOE and its contractors should evaluate the potential for converting the new DOE Technical Standard to a VCS using the criteria in DOE-TSPP-8-2013. This is consistent with the intent of PL 104-113 and OMB Circular A-119, which encourage government partnering with the private sector in the development of standards and government participation on Standards Developing Organization (SDO) bodies to reduce overlap and duplication of standards.

DOE Technical Standards are part of a hierarchy of documents that describe how the Department performs work. The top level of this hierarchy is DOE Policy documents (P), which describe the high level expectations and fundamental values of the Department—the "why we do it" statements. The next level, requirements documents (R), such as orders and rules, identifies "what must be done." These documents set DOE expectations or specify criteria that must be met in achieving DOE missions and ensuring safe and reliable facility operations. Guides (G), the next level, provide general information and methodologies that DOE finds acceptable to meet the Department's requirements. Often, the DOE guides provide a link between the requirements and DOE Technical Standards. The bottom level, DOE Technical Standards, provide specific standardized approaches, methodologies, technical criteria, or other information on accomplishing a task, developing a plan, and/or performing a calculation or assessment to implement a DOE requirement. DOE Technical Standards provide a common shared approach or methodology for implementing a DOE requirement such that its implementation is consistent across DOE programs and operations. The activities of the TSP are described in the Technical Standards Program Procedures (TSPPs) and DOE O 252.1A. DOE Programs and sites typically have implementing procedures that further describe how specific organizations will implement this hierarchy.



Just like VCSs, DOE Technical Standards do not become requirements within DOE simply because the standards exist. DOE Technical Standards and other standards may become mandatory documents when (1) they are cited as a requirement in a DOE requirements document; (2) they are identified as mandatory in DOE-approved contractor documents, such as Documented Safety Analyses; or (3) they are

identified as mandatory standards in contractual agreements between DOE and its contractors. As a good practice, DOE Technical Standards should be invoked by specific revision, to avoid future confusion about subsequent changes.

The TSP serves as an integral element of DOE's management systems - part of the infrastructure supporting DOE's Integrated Safety Management System (ISMS). The TSP interfaces are shown in Figure 1 and discussed below. The Department Standards Executive, designated in accordance with OMB Circular A-119, directs implementation of the Department's policy on the development and use of standards. In this role, the Department Standards Executive also represents DOE's interests in Federal agency standardization activities coordinated by the Interagency Committee on Standards Policy (ICSP).

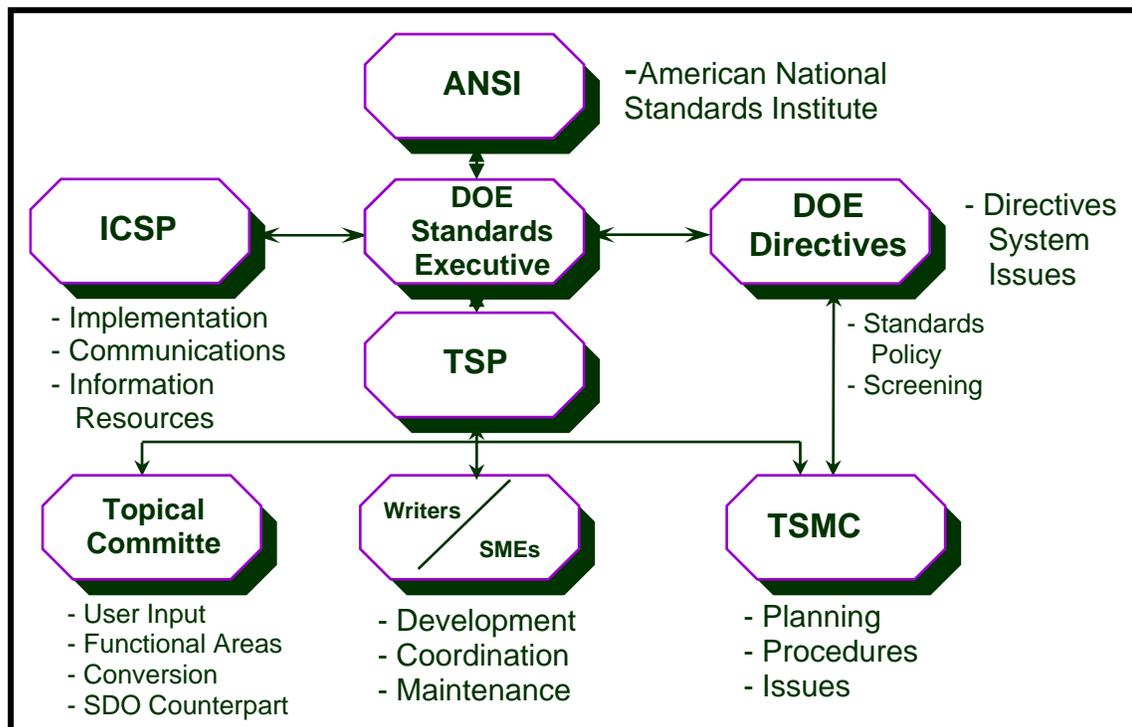


Figure 1. DOE Technical Standards Program Interfaces

The DOE TSP Manager provides leadership and management support for the TSP, working through a network of Technical Standards Managers (TSMs), [organized as the Technical Standards Managers' Committee (TSMC)] and a system of DOE Topical Committees headed by designated Chairpersons. The TSMC represents key DOE Headquarters program offices, DOE operations and field offices, and contractor organizations. The TSP Manager brings focus, continuity, and purpose to the program; concurrently, the TSP and TSMC act as a clearinghouse for standards information, promote participation of individuals in VCS work, identify and respond to standards needs, provide information on DOE Technical Standards initiatives and relevant VCS work, and expand standards awareness through education and other outreach programs.

DOE Headquarters, field, and contractor organizations rely on the expertise and services of the TSP and TSMC to meet their program responsibilities as either Preparing Activities (develop/maintain DOE Technical Standards) or Review Activities (assess the adequacy of DOE Technical Standards for meeting identified

needs). Overall coordination of specific standards issues both within DOE and directly with the SDO community can also be conducted through designated DOE topical committees recognized under the TSP. These groups are usually composed of subject matter experts (SMEs) from various DOE/contractor organizations and organized under a single chairperson, but they can be linked to other Federal and industry groups, as well as SDOs. Topical committees generally function independently under the broad recognition of the TSP; they can be called upon to support specific standards needs within the Department and use the TSP forum to bring forward important standards issues for consideration. The TSP is a Department-wide effort that crosscuts all organizations and disciplines. Information on the TSP can be electronically accessed at the following Internet address (URL): <http://www.hss.energy.gov/nuclearsafety/techstds/>

In addition, ANSI has developed the National Standards Systems Network (NSSN), a global information system on international, regional, and domestic standards. The NSSN can be electronically accessed at the following Internet address (URL): <http://www.nssn.org/>

Standards provide a practical solution to the Department's challenge to safely and reliably manage and operate its facilities at reasonable cost. Through them, the technologies of industries and governments worldwide are available to DOE. Standards are the repository for international experience and knowledge. The TSP links the Department to this repository.

2.2 Technical Standards Program Procedures (TSPPs)

The DOE TSPPs are a set of implementing procedures to consistently implement the requirements of the TSP as defined by DOE O 252.1A. The TSP Manager may establish TSPPs with the review and approval of the TSMs and make the TSPPs available for DOE-wide use. The TSPPs must be consistent with the requirements in DOE O 252.1A. The TSPPs establish process-level requirements to consistently implement the DOE policy-level requirements from DOE O 252.1A.

The TSPPs are developed jointly by the DOE TSP Manager, the TSP, participating TSMs, and associated DOE Topical Committee Chairpersons and Steering Committee members. Revisions and updates to the TSPPs may be proposed by any of the TSP participants, and may stem from operational necessities, service needs, process improvement analyses, customer suggestions, and changes in guidance and requirements (such as those stemming from PL 104-113 and OMB A-119 revisions). Proposed changes to the TSPPs are submitted for TSMC review via TSP RevCom. The TSP resolves comments on the TSPPs and provides for TSMC review and concurrence via TSP RevCom. TSPPs are not approved unless all non-concurrences are resolved.

The TSMs coordinate their organization's participation in the TSP in accordance with the TSPPs. The TSPPs are oriented towards supporting the Department's TSMs and the TSP in carrying out their responsibilities to promote the preferential use of VCSs by DOE, and supporting the development and maintenance of needed internal standards. They are also often used by Preparing Activities to originate, process, and gain approval of a DOE Technical Standard. The TSPPs provide the TSP with efficient and effective means to provide services, data, and information; develop and maintain DOE Technical Standards; and establish topical committees. They are subjected to continuous improvement based on frequent use, experience and lessons learned.

The TSPPs also contain process flowcharts and summaries to provide simplified overviews of TSP processes. In conjunction with an experienced TSP and TSMs, they provide the means for DOE to implement Federal and DOE policy and requirements, and establish essential services and processes for DOE's Technical Standards needs.

3. PROGRAM RESPONSIBILITIES

3.1 Cognizant Secretarial Officers (CSO), Program Senior Officials, and DOE Heads of Field Organizations

CSOs, Program Senior Officials, and heads of field organizations are responsible for implementing the TSP and ensuring that DOE Technical Standards documents developed or processed by their organizations follow TSP processes, and that "unauthorized documents" or "rogue documents" (see DOE O 251.1C, *Departmental Directives Program*) are brought under the Directives System or TSP.

3.2 Chief Health, Safety and Security Officer (HS-1)

The Office of Health, Safety and Security (HSS) has overall responsibility for administering the TSP.

3.3 Director, Office of Nuclear Safety (HS-30)

The Director of the Office of Nuclear Safety is responsible for managing the day-to-day operations of the TSP and for implementing the standards requirements of Public Law 104-113 and OMB A-119 through the TSP.

3.4 Technical Standards Managers' Committee

The TSMC consists of designated TSMs who represent the different TSP participants on standards-related matters. The charter for the committee, including responsibilities, is provided in Attachment A.

3.5 Technical Standards Program Manager

A Technical Standards Program Manager is appointed by the Chief Health Safety and Security Officer. The Manager has the following responsibilities:

- 3.5.1 Serve as the overall manager of day-to-day operations and program planning and development activities of the TSP.
- 3.5.2 Manage DOE implementation of the standards requirements of Public Law 104-113 and OMB Circular A-119 and provide input on TSP activities to senior DOE management as requested.
- 3.5.3 In partnership with TSMs, screens all TSP actions (new draft standards, revised draft standards, and standard cancellations) to ensure that they meet the intent of a DOE technical standard and are not duplicative of existing, adequate VCSs or other DOE Technical Standards.
- 3.5.4 Assist and coordinate with TSMs and Preparing Activities in the development and maintenance of DOE Technical Standards.
- 3.5.5 Chair and support the TSMC to identify TSP needs and issues.
- 3.5.6 Establish TSPPs as needed, with concurrence from TSMs, and makes them available for DOE-wide use.

- 3.5.7 Serve as the primary point of contact for the TSP to answer standardization questions and resolve standardization policy issues, and assist TSMs in their resolution of issues related to implementation of the TSP.
- 3.5.8 Encourage DOE participation in the development of voluntary consensus standards, and ensure appropriate DOE representation on voluntary consensus standards committees, subcommittees, and working groups.
- 3.5.9 Act as liaison with voluntary consensus standards bodies for activities related to DOE programs, and assist voluntary consensus standards bodies when their activities benefit DOE programs, projects, and facilities.
- 3.5.10 Establish and maintain a database of information on standards activities within DOE, TSP participants in voluntary consensus standards activities, and VCSs available for DOE use.
- 3.5.11 Review approved DOE Technical Standards to ensure completeness prior to posting and release.
- 3.5.12 Support the establishment and operations of DOE topical committees.

3.6 Technical Standards Managers

A TSM is usually a senior, experienced person that is appointed by the head of a TSP participant organization and tasked with managing that organization's standards activities under the TSP. TSMs have the following responsibilities:

- 3.6.1 Serve as the single point of contact for their organization on standards-related work.
- 3.6.2 Coordinate their organization's participation in the TSP in accordance with the TSPPs.
- 3.6.3 Work with their organization to identify VCSs, or other standards (e.g., military) suitable to their needs, and to develop and maintain DOE Technical Standards as needed.
- 3.6.4 Assist the Preparing Activity in identifying Review Activities (refer to section 3.8 of this procedure).
- 3.6.5 Using the TSP RevCom system, coordinate proposed DOE Technical Standards with appropriate individuals (also known as subject matter experts) and organizations and consolidate comments.
- 3.6.6 Headquarters TSMs in organizations with a Central Technical Authority: obtain input and comments from the Central Technical Authority and reflect this input in the organization's consolidated response.
- 3.6.7 Provide feedback to subject matter experts on disposition of their comments and provide notification to subject matter experts on comment resolution and concurrence drafts.
- 3.6.8 Arrange for approval of DOE Technical Standards developed within their organization.
- 3.6.9 Headquarters TSMs: Assign a document identifier number (from the block of numbers designated by the TSMC) to the Preparing Activity just prior to final approval for release and publication of new or revised DOE Technical Standards.

- 3.6.10 Send approved DOE Technical Standards to the TSP staff for indexing, and internet posting.
- 3.6.11 Maintain project files of DOE Technical Standards development activities within their organization, including comment resolutions.
- 3.6.12 Coordinate draft VCSs within their organization.
- 3.6.13 Keep the TSP staff informed of VCSs activities in their respective organizations.
- 3.6.14 Maintain familiarity with functions and responsibilities of the TSM position, participate in TSM orientation sessions, and participate in TSMC meetings on a routine basis and participate to help establish program procedures, address issues, and represent their organization's interests.
- 3.6.15 In partnership with the Technical Standards Program Manager, screen all TSP projects to ensure that they meet the description of a technical standard, and are not duplicative of existing, adequate VCSs, allowing only those projects that meet that intent to proceed past the project initiation phase.
- 3.6.16 In partnership with Cognizant Secretarial Officers, Senior Program Officials, Field Office Managers, and the DOE TSP, respond to all TSP requests, including the maintenance of DOE Technical Standards for which their organization has responsibility (e.g., responding to Sunset Review Reports in a timely manner).

3.7 Preparing Activity

A Preparing Activity is the DOE organization that has accepted responsibility for developing, coordinating, and maintaining a DOE Technical Standard. The Preparing Activity is represented by a Senior Line Manager, a DOE senior executive who accepts overall responsibility, and an Author, who serves as a single point of contact for development activity. The Preparing Activity may be supported by a working committee and/or DOE contractors. Preparing Activities have the following responsibilities:

- 3.7.1 Verify the need for developing a technical standard.
- 3.7.2 Conduct searches for existing voluntary consensus standards. Note: VCSs may be adopted in whole, in part, or by reference.
- 3.7.3 Ensure that all documents intended to function as technical standards within DOE are processed through the TSP.
- 3.7.4 Develop and update DOE Technical Standards. Updates include revisions, change notices, reaffirmations, and cancellations.
- 3.7.5 For DOE Technical Standards, select the appropriate distribution statement from DOE O 241.1B, *Scientific and Technical Information Management*. Ensure that all drafts of DOE Technical Standards are appropriately marked.
- 3.7.6 With the support of the TSM, coordinate proposed DOE and VCSs with appropriate DOE organizations.
- 3.7.7 Respond to comments received during coordination. For DOE Technical Standards projects, resolve essential comments with the Reviewing Activities prior to sending the document to line management for approval.

- 3.7.8 Submit essential comments that cannot be resolved to the responsible TSM for resolution.
- 3.7.9 Forward the final version of proposed DOE Technical Standards to the appropriate DOE senior line manager for approval.
- 3.7.10 Respond to user feedback as it is received.

3.8 Review Activity

A Review Activity is an organization or person with expertise relating to any proposed technical standard. Review Activities may include individuals or organizations representing diverse viewpoints, such as purchasers, users, suppliers, manufacturers, and regulatory bodies. Review Activities have the following responsibilities:

- 3.8.1 Review proposed TSP actions and submit comments through the responsible TSM.
- 3.8.2 Review comment resolutions proposed by the Preparing Activity and work toward mutually acceptable resolutions.

3.9 Topical Committees

Topical committees are groups of DOE and DOE contractor SMEs that are recognized by the TSP. These committees are usually organized by specific technical areas that may have standards development/application or standardization implications for DOE. Topical committees have the following responsibilities:

- 3.9.1 Focus the Department's standards work in specific areas of interest.
- 3.9.2 Serve as user groups to exchange information on implementation of standards at DOE facilities.
- 3.9.3 Inform Preparing Activities of existing voluntary consensus standards that would serve DOE's needs in lieu of developing a new DOE Technical Standard.
- 3.9.4 Serve as Preparing Activities or Review Activities in the preparation, review, maintenance, or conversion of DOE Technical Standards.
- 3.9.5 Represent DOE interests with VCSs organizations and other Federal agencies on specific standards issues.

3.10 TSP Participants

- 3.10.1 Record participation in standards writing activities, management boards, or both of voluntary consensus standards bodies using DOE Form (F) 1300.2, *Record of Non-Government Standards Activity*.
- 3.10.2 Work with organizational TSMs and line managers in determining the need for new or revised DOE Technical Standards, the availability of suitable VCSs, and the appropriate processes for developing and maintaining a DOE Technical Standard under the TSP.

3.11 DOE Representative to Voluntary Consensus Standards Activity

- 3.11.1 Represent the Department's interests in the development of VCSs needed by DOE.

- 3.11.2 Function as (or in cooperation with) the Preparing Activity in coordinating and resolving comments within DOE on proposed VCSs (both new/revised standards and projects to convert DOE Technical Standards to voluntary consensus standards).

**ATTACHMENT A
DOE TECHNICAL STANDARDS MANAGERS'
COMMITTEE CHARTER**

1. Purpose

The Committee is to facilitate communications and coordinate standards work among Technical Standards Program (TSP) participant organizations (Department of Energy (DOE) and contractor organizations) in accordance with DOE Order (O) 252.1A, *Technical Standards Program*.

2. Membership and Organization

All duly appointed Technical Standards Managers (TSMs) are members of the Technical Standards Managers Committee (TSMC). Other members may be appointed as the TSMC determines appropriate. The TSMC will consist of a policy body and a technical body. The policy body consists of the DOE members. The technical body consists of all members. The TSMC is chaired by the Manager of the TSP. The vice chair and secretary will be appointed by the TSMC chair, with the advice of the TSMC. The vice chair will be selected from among the major headquarters program office TSMs on a rotating basis. The secretary will be selected from among the field office TSMs on a rotating basis. Task groups may be formed as needed for special projects.

3. Meetings

The TSMC will meet periodically to discuss standardization-related matters of interest. Any special task groups will meet as necessary to complete assigned responsibilities. Special meetings of the TSMC or smaller groups may be called at any time as directed by the TSMC chair. Telephone conferences may be used to fulfill the functions of these meetings.

4. Responsibilities

The roles and responsibilities of the TSMC are as follows:

- 4.1 Recommend criteria, procedures, and actions for accomplishing the goals and objectives of the TSP.
- 4.2 Develop guidelines to assist TSP participants in the proper application of voluntary consensus (both international and national) and Government standards.
- 4.3 Provide a forum for discussing problem areas related to standards, or other issues related to the TSP. Establish appeals panels (composed of policy members) to resolve problems and essential comments not previously reconciled.
- 4.4 Provide recommendations for improving DOE Technical Standards processes.
- 4.5 Provide assistance to DOE and contractor organizations during their development, review, and approval of proposed DOE Technical Standards.