

**GAO**

**Testimony**

Before the Subcommittee on Technology, Committee on  
Science, House of Representatives

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**VOLUNTARY  
CONSENSUS  
STANDARDS**

**Agencies' Compliance  
With the National  
Technology Transfer  
and Advancement Act**

Statement of Jim Wells,  
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**G A O**

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Madam Chair and Members of the Subcommittee:

We are pleased to be here today to discuss the National Technology Transfer and Advancement Act, which became law in March 1996. As you know, the legislative history of the act describes the importance of developing standards that are appropriate to rapidly changing technology and acknowledges that federal agencies should be major participants in the U.S. standards system. Specifically, Section 12 codified existing guidance from the Office of Management and Budget (OMB) and directed federal agencies to increase their use of voluntary consensus standards and use them instead of government-developed standards whenever possible. Voluntary consensus standards are technical specifications for products or processes that are developed by standards-setting bodies. The act assigned broad oversight responsibility to OMB and coordination responsibilities to the National Institute of Standards and Technology (NIST).

In February 1998, OMB issued revised Circular A-119 (Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities) to be consistent with the terminology in the act and to provide federal agencies with guidance on how to meet the act's requirements. The circular directs federal agencies to participate in standards-setting bodies and adopt voluntary consensus standards when possible in order to reduce duplication in production lines and assist U.S. competitiveness in trade. The circular directs the agencies, through NIST, to provide OMB with information on their standards activities for inclusion in an annual report to the Congress. As agreed with your staff, my statement today will focus on (1) NIST's and OMB's activities in carrying out their oversight responsibilities under the act; (2) agencies' efforts in reporting their standards activities; and (3) progress made specifically by the Department of Defense (DOD) and the Environmental Protection Agency (EPA) in complying with the act. My comments are based on information we have obtained from NIST, OMB, DOD, and EPA.

In summary, Madam Chair, our work showed the following:

- NIST and OMB have taken a number of steps to guide and coordinate federal agencies in their efforts to increase their use of voluntary consensus standards. For example, NIST has chaired an interagency committee to coordinate standards policy and activities among federal agencies, established an internal advisory committee to create a strategic approach to setting standards for other agencies to model, and recently proposed guidance on federal conformity assessment activities. NIST has also worked with the American National Standards Institute, which coordinates and sanctions voluntary standards, to develop a web site that helps agencies identify relevant voluntary standards. Since revising OMB Circular A-119, OMB's efforts have focused primarily on its review and approval of NIST's summary of federal activities on standards that OMB submits to the Congress.

- The report on federal agencies' standards activities covering fiscal year 1998 was presented to the Congress this month, 18 months after the close of the fiscal year. The delay reflected tardiness in each stage of the reporting process, starting with federal agencies that provided their input to NIST several months after the date specified in the circular. For example, 12 agencies--or about half of those reporting--reported their standards activities after the December 31, 1998 deadline. NIST received the last submission in March 1999. NIST, in turn, provided OMB with agencies' submissions in September 1999, about 8 months after the January 31<sup>st</sup> deadline established in the circular. In part, NIST's report was late because of the agencies' tardiness in providing submissions. In addition, NIST did not have a definitive list of agencies that are required to report, which added to the delay because it could not determine when all the submissions were in. Finally, OMB provided the report to the Congress about 6 months after receiving agencies' submissions from NIST. OMB stated that this time was necessary because of revisions it requested from NIST and other demands on its resources, such as its efforts to help coordinate federal activities to address Y2K issues.

- We found that both DOD and EPA--the two agencies you asked us to review--have taken steps to comply with the act. For example, DOD has replaced hundreds of military specifications with voluntary standards, and EPA has established a system to keep track of its rules that use voluntary consensus standards. According to OMB and NIST

officials, DOD's and EPA's efforts are similar to the progress most federal agencies have been making in complying with the act. The reporting measures established in the circular do not assess agencies' efforts in assisting U.S. competitiveness, so we cannot measure the progress being made against this objective.

Before discussing these issues in more detail, we would like to provide some background information on the act and reporting requirements for federal agencies.

## **Background**

Standards are technical specifications that pertain to products and processes, such as the size, strength, or technical performance of a product, process, or material. Voluntary consensus standards are standards developed by standards-setting entities such as the American Society for Testing and Materials (a non-profit organization formed to develop standards); these organizations derive consensus through the principles of due process, openness, and balance of interests. Government standards are developed by individual federal agencies for their own use. Although unique government standards sometimes are appropriate, such as standards for certain specialized military equipment, in other cases, a voluntary standard would suffice. This creates duplication for industry, which may have to provide two lines of production to meet both government and private needs, and can put U.S. companies at a disadvantage in international trade.

To reduce these problems, the act (P.L. 104-113) and the OMB circular direct federal agencies to use voluntary consensus standards whenever possible. The circular describes impractical circumstances as those that would fail to serve the agency's program needs or be inconsistent with the agency mission. For example, the Navy uses a military standard for the welding of submarine hulls, in part, because of security considerations. The act also directs federal agencies to consult with and participate when appropriate in standards-setting organizations and provide explanations when they do not use voluntary consensus standards in their procurement or regulatory activities. The act provides specific direction to NIST concerning its coordination role. The circular establishes policies to implement the act.

The act and circular also direct federal agencies, NIST, and OMB to report federal standards-setting activities. The act requires federal agencies to notify OMB when they choose not to use voluntary consensus standards and requires OMB to report annually to the Congress summarizing the agencies' explanations for not using voluntary consensus standards. However, the act does not specify a deadline for OMB's report. The circular directs the agencies to report to NIST, by December 31<sup>st</sup> of each year, agencies' explanations and other information, including the number of federal employees participating in voluntary consensus standards organizations, the number of voluntary standards substituted for government standards, and any recommendations for changes that OMB should make to the circular. The circular directs NIST to forward this report to OMB by January 31<sup>st</sup> of the following year.

### **NIST's and OMB's Activities**

In the 4 years since the act was passed, NIST and OMB have taken a number of steps to further the act's implementation by federal agencies. NIST has initiated several activities to guide federal agencies' use of voluntary consensus standards. For example, NIST chairs the Interagency Committee on Standards Policy, which seeks to promote consistent standards policies and to foster cooperation among the federal government, U.S. industry, and standards-setting organizations. As chair of the committee, NIST, through the Secretary of Commerce, asked each federal agency to designate a Standards Executive to serve on the committee and coordinate the agency's standards activities and implementation of OMB's circular. NIST has also established the Standards Advisory Committee as a coordination mechanism within NIST for matters related to standards and conformity assessment. One of its tasks is to devise a strategic approach on adopting and using standards within NIST. According to agency officials, this strategic approach could then be used as a model by other federal agencies. NIST recently proposed guidance on federal conformity assessment activities and has also produced reports designed to guide federal agencies on such issues as lab accreditation

and policies of the International Organization for Standardization, an international standards writing organization.

NIST has also taken actions to coordinate the identification and use of standards by federal agencies. For instance, it has worked with the American National Standards Institute to develop the National Standards Systems Network, a web site that agencies can use to search for standards information from many sources, including standards-setting organizations. NIST has also convened meetings with representatives of federal agencies, U.S. industry, and standards-setting organizations. According to NIST officials, the objective of these meetings is to increase federal agencies' and private industry's understanding of how standards are set as well as promote dialogue among these groups.

In overseeing agencies' use of voluntary consensus standards, OMB works directly with agencies only as a member of the Interagency Committee on Standards Policy. OMB does not direct each agency's day-to-day compliance with the act. It is NIST's role to inform federal agencies about standards and help them comply with the act and the circular. However, OMB officials noted that they would talk to agencies that were not complying. Since revising the circular, OMB's efforts have focused primarily on its review and approval of NIST's annual summary of federal activities on standards that OMB submits to the Congress.

### **Reporting Deadlines Have Not Been Met**

OMB provided its report to the Congress on federal agencies' standards activities for fiscal year 1998 in March 2000, about 18 months after the close of the fiscal year. Delays occurred in each stage of the reporting process. For example, 12 agencies—about one-half of those reporting—provided their input to NIST for fiscal year 1998 after the December 31<sup>st</sup> deadline. Among these were 9 of the 14 Executive Departments, including the departments of Education, Justice, Labor, Transportation, Health and Human Services, Housing and Urban Development, State, Agriculture, and Veterans Affairs. NIST received its last submission—from Veterans Affairs--in March 1999. OMB officials

offered three reasons why the agencies have reported late. First, the agencies have not had an opportunity to fully establish their process for using, reviewing, and reporting standards. Second, the Y2K issue required staff resources to be focused on that challenge. Third, the agencies have not had the resources to report as expeditiously as possible.

NIST, in turn, provided OMB with the agencies' submissions about 8 months after the January 31<sup>st</sup> deadline OMB gave NIST in the circular. In part, NIST's report was late because some of the agencies did not report on time. NIST officials stated that, after receiving the last agency submission in March 1999, NIST was directed by OMB to wait for additional submissions from agencies that had not reported, and NIST did so. However, NIST had not developed a definitive list of which agencies should report. As a result, it could not determine when all agencies' submissions were in. According to OMB officials, several agencies have stated that they should not be required to report because they are not involved in standards-setting activities but only one agency, the United States Agency for International Development, notified NIST in writing of its intention not to file a report. We believe this lack of clarity contributed to NIST's delay in reporting to OMB. NIST officials also noted that its reporting time was lengthened by its own internal review and OMB's request that NIST obtain comments from the Interagency Committee on Standards Policy.

OMB provided its report to the Congress on standards activities in fiscal year 1998 about 6 months after receiving NIST's report. OMB stated that this time was necessary because of revisions it requested from NIST and other demands on its resources, such as Y2K issues. It should be noted that OMB provided its fiscal year 1997 report to Congress about 8 months after receiving NIST's submission. Its fiscal year 1999 report is under development.

### **Agencies' Compliance Efforts**

DOD and EPA—the two agencies you asked us to specifically address in our review-- have taken steps to comply with the act and circular. These agencies have differed in their approaches, however. DOD has gradually increased its use of voluntary consensus standards in procurement, while EPA has increased its awareness of these standards in its rulemaking activities. According to officials with OMB and NIST, DOD's and EPA's efforts are similar to the progress most federal agencies are making. The reporting measures established in the circular do not assess agencies' efforts in assisting U.S. competitiveness. As a result, we cannot measure the progress being made against this objective.

#### DOD Has Started To Use More Voluntary Consensus Standards

Since the passage of the act, DOD has begun to increase its use of voluntary consensus standards. However, the effort to do this began prior to the act's passage. In particular, DOD completed a major review of all military specifications in 1994. As a result of this review, DOD replaced many military specifications with voluntary consensus standards. More recently, according to DOD officials, the Department has developed procedures to (1) identify outdated specifications and replace them, whenever possible, with voluntary consensus standards and (2) help ensure that DOD-developed standards do not proliferate. To eliminate outdated military specifications, every 5 years, DOD reviews military standards that previously have not had voluntary consensus counterparts to determine if these standards could be replaced with new voluntary consensus standards. To reduce the creation of new standards, DOD's senior executives must approve projects with new DOD-developed standards. To control use of existing standards, DOD requires an executive outside of the originating program office to issue a waiver.

DOD's annual reports on its standards activities from fiscal year 1997 through fiscal year 1999 indicate that DOD is gradually increasing its use of voluntary standards, although the reports do not indicate how many military standards were adopted or continued to be used during these years. For example, in fiscal year 1997, DOD reported that it

adopted an additional 73 voluntary standards and replaced 58 DOD standards with voluntary standards. By fiscal year 1999, these numbers had gone up to an additional 627 voluntary standards adopted and 491 DOD standards replaced.

### EPA Has Increased Its Consideration but Not Its Use of Voluntary Consensus Standards

The passage of the act and revisions to OMB's circular, which extended its directions to regulatory agencies, caused EPA to focus attention on the use of voluntary consensus standards. EPA had initiated efforts to use voluntary consensus standards in its rulemaking activities before the act's passage, but the agency placed greater emphasis after the law's enactment on obtaining access to voluntary consensus standards and identifying which of them could replace EPA standards. For example, in 1997 EPA appointed its first Standards Executive to coordinate the agency's response to the act. To respond to the reporting directions in the revised circular, EPA established a system in 1998 to keep track of rule makers' use of voluntary consensus standards. The agency obtained access to the National Standards Services Network, which provides information on voluntary consensus standards. EPA has also set up training sessions for rule makers to learn about using the network and prepared a draft rule writers' guide that emphasizes consideration of voluntary standards.

EPA's reports on its standards activities from fiscal years 1997 through 1999 indicate that EPA increased its awareness and consideration of voluntary consensus standards in regulatory actions and its ability to report on their use in accordance with the act. For example, in fiscal year 1997, EPA was not able to determine how often it had used government-developed standards in lieu of voluntary consensus standards. Over the course of the next year EPA established a database that enabled it to track this information for each transaction. Thus, in its fiscal year 1998 report, EPA identified three final regulations in which a voluntary consensus standard was rejected in favor of a government standard. EPA provided a detailed rationale for each instance. In its fiscal year 1999 report, EPA identified 13 final rules where the agency had rejected more than

78 existing voluntary consensus standards based on impracticability, including a lack of validation data and the standard's inability to be broadly applied.

Despite its increased consideration of voluntary consensus standards, EPA appears to have used fewer such standards in fiscal year 1999 than it did in fiscal year 1997. For example, in fiscal year 1997, EPA reported that a total of 31 final rules used or made reference to various voluntary consensus standards. In fiscal year 1999, this number had dropped to nine final rules and six proposed rules adopting voluntary consensus standards or proposing that they be adopted.

#### According to OMB and NIST, Other Agencies Are Also Complying

OMB and NIST officials told us that other agencies have also increased their consideration and use of voluntary consensus standards in compliance with the act. This performance reflects that many agencies were using voluntary consensus standards—in compliance with earlier editions of the circular—before the act's passage. In addition, according to OMB officials, federal agencies currently develop very few government-specific standards in lieu of voluntary consensus standards. Furthermore, they believe that agencies are complying with the act because they have received no complaints from the private sector about the agencies' practices. The private sector would have an incentive to voice disagreement if the agencies were continuing to use government standards unnecessarily.

#### **Observations**

While we can document progress by federal agencies in complying with the National Technology Transfer and Advancement Act, we were unable to make a qualitative assessment of the effectiveness of agencies' compliance efforts in assisting U.S. competitiveness. The annual report on agencies' standards-setting activities includes information on agencies' activities, not on the impact of these actions on U.S. industry. While we recognize the value of having agencies report increasing consideration and use

of voluntary consensus standards, for the Congress to determine whether the agencies' activities are effective, more information is needed on whether standards used by agencies are reducing duplications in production lines or assisting U.S. competitiveness in trade.

We conducted our review from February to March 2000 in accordance with generally accepted government auditing standards. We provided OMB, NIST, DOD, and EPA with a draft of the testimony for review and incorporated their suggestions where appropriate.

This concludes my statement. If you or other members of the Subcommittee have any questions, we will be pleased to respond to them.

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### **Contact and Acknowledgments**

For additional information, please contact Jim Wells at (202) 512-3841. Individuals making key contributions to this testimony were Kathy Hale, Robin Nazzaro, Daren Sweeney, and Mindi Weisenbloom.

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