NISTIR 7118

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

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U.S. DEPARTMENT OF COMMERCE
Donald L. Evans, Secretary
TECHNOLOGY ADMINISTRATION
Phillip J. Bond, Under Secretary of Commerce for Technology
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
Hratch G. Semerjian, Acting Director

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Summary Report on Federal Agency Use of Voluntary Consensus Standards and Conformity Assessment Activities for FY 2003

1.0 Executive Summary

This summary report is provided to the Office of Management and Budget (OMB) by the National Institute of Standards and Technology (NIST) in compliance with OMB Circular A-119 and Public Law 104-113, the National Technology Transfer and Advancement Act (NTTAA). It describes activities related to the use of voluntary consensus standards and conformity assessment practices by agencies of the Federal government during FY 2003 as required by Paragraph 9 of the Circular.

This report presents the standards and conformity assessment activities of 25 Federal agencies. Reported data show that overall Federal agencies continue to look to the private sector to fulfill government needs rather than creating new government-unique standards. Since FY 1997, Federal agencies have adopted nearly 2,500 private sector standards in support of their regulatory, procurement and policy activities.

For FY 2003, Federal agencies reported 400 new uses of private sector standards. In addition, during the same period agencies substituted 185 private sector standards for government-unique standards. This is a clear demonstration of the progress made by agencies in complying with the NTTAA and Circular A-119. It indicates that, overall, agencies are increasingly looking to the private sector to fulfill government's needs rather than create new government-unique standards.

Agency reporting on the number of government-unique standards used in lieu of private sector standards shows an incremental increase in FY 2003; with only nine new uses reported. New uses by agencies of government-unique standards in lieu of private sector standards have declined steadily each year since FY 1999.

Federal agencies reported participation in 433 private sector standards developing organizations during FY 2003. This is the largest number recorded since 2001 when NIST began collecting this data. The number of agency staff participating in standards activities was 3,568, an increase of 11% over the previous reporting period. Even so, private sector standards developers assert that there continue to be areas where greater Federal agency participation is necessary to ensure government input on important standards-related issues.

For their part, Federal agencies report that maintaining their current levels of participation in standards developing organizations is becoming increasingly difficult. Competing organizational priorities, dwindling budget resources and anticipation in coming years of accelerated staff losses due to retirement and downsizing are just some of the reasons for concern in this area among agency Standards Executives.

Federal agencies continue to make advances in their ability to assess their standards-related activities and to make accurate reports of their activities for incorporation into this annual report. NIST is focusing its efforts on improving information sharing among Federal agencies as well as between the public and private sector, and on developing training programs to acquaint agency staff with their responsibilities under the NTTAA.

2.0 Overview and Scope

This summary report is provided to the Office of Management and Budget (OMB) by the National Institute of Standards and Technology (NIST) in compliance with OMB Circular A-119. It describes activities related to the use of voluntary consensus standards and conformity assessment practices by agencies of the Federal government during FY 2003 as required by Paragraph 9 of the Circular. The account of federal activities summarized in this document was compiled from reports submitted to NIST by federal agencies also in compliance with Paragraph 9 of the OMB Circular and Section 12 of the NTTAA. First signed into law on March 7, 1996, the NTTAA directs federal government agencies to achieve greater reliance on voluntary consensus standards developed by the private sector and decreased dependence on government-unique standards developed by and for the government. It also directs that federal agency personnel participate in the activities of voluntary consensus standards developing organizations in order to help ensure that standards produced in the private sector are more likely to be appropriate for use by federal agencies. These policies had been reflected for many years in OMB Circular A-119, and the enactment of the NTTAA codified these policies into statute and reinforced them.

This report presents the standards and conformity assessment activities of twenty-five (25) federal agencies as listed in Appendix A. Data for the Department of Homeland Security (DHS) is not included in this report, as the Department was not fully formed and operational with respect to its standards management operations in time to file a submission for FY 2003 for inclusion herein. Consequently, reports from the Federal Emergency Management Agency and the National Communications System, both of which reported as independent agencies in years past, as well as the US Coast Guard, which formerly reported under the Department of Transportation, are not included in this report, as those agencies were all subsumed under the newly established DHS during FY 2003.

This summary report represents a shift in reporting methodology from prior submissions made by NIST in compliance with the Act and the Circular. In response to comments received on the content and structure of past reports, NIST has attempted to prepare a shorter, more focused report that is more useful and informative for the reader. Supplemental information including individual agency submissions that were published in the past as appendices to NIST reports can be obtained online at www.standards.gov or by contacting NIST directly.

3.0 Federal Agency Use of Standards

According to OMB Circular A-119, federal agencies must use voluntary consensus standards, both domestic and international, in their regulatory and procurement activities in lieu of government-unique standards. An agency has the discretion to decline to use existing voluntary consensus standards if the agency determines that use of such standards is inconsistent with applicable law or otherwise impractical. According to paragraph 6 a.(1) and (2) of OMB Circular A-119:

"Use" means incorporation of a standard in whole, in part, or by reference for procurement purposes, and the inclusion of a standard in whole, in part, or by reference in regulation(s).

"Impractical" includes circumstances in which such use would fail to serve the agency's program needs; would be infeasible; would be inadequate, ineffectual, inefficient, or inconsistent with agency mission; or would impose more burdens, or would be less useful, than the use of another standard.

The Circular also directs agencies to establish a process for ongoing review of their use of standards for purposes of updating such use, including substitution of private sector standards for government-unique standards wherever possible.

The stated policies of the OMB Circular are thus intended to reduce to a minimum the reliance by agencies on government-unique standards. The Circular also states that its policies do not create the basis for discrimination in agency procurement or regulatory activities among standards developed in the private sector, whether or not they are developed by voluntary consensus standards bodies. Historically, federal agencies have in fact used other private sector standards (classified by the Circular as non-consensus standards, industry standards, company standards and de facto standards). In reporting the full measure of their efforts at minimizing government-unique standards, agencies have typically reported to NIST their activities in these areas as well. Consequently, the information contained in this report addresses the use of standards and participation in standards development activities of organizations described interchangeably either as non-government or private sector standards developers. Either of these terms can be taken to include voluntary consensus standards as well as the other classifications of standards listed above.

3.1 Government-Unique Standards Used in Lieu of Private Sector Standards

According to paragraph 6 of OMB Circular A-119, the heads of agencies “must transmit to OMB through NIST an explanation of the reason(s) for using government-unique standards in lieu of voluntary consensus standards.” After careful review of data for FY 2003 and past reporting periods, NIST and OMB have taken steps in this report to account for inconsistent reporting across the agencies that has in the past presented a less than accurate picture of this important metric. To explain briefly, some agencies in past years have counted the number of private sector standards not used instead of the

government-unique standards that were introduced. For example, a single government-unique standard used in lieu of five private sector standards was often reported as five government-unique standards used. For the first time in this report, each government-unique standard is listed (and counted) only once along with all of the corresponding private sector standards not used. Appendix C contains a complete listing of reported government-unique standards used in lieu of private sector standards for FY 2003, as well as the associated rationales for such use provided by the agencies. Secondly, further examination of the government-unique standards reported in this category has revealed that some standards were listed previously when no alternative private sector standards existed. In the absence of a private sector standard not used, these government-unique standards need not be reported and have therefore been removed from the list. Finally, while some agencies report use of a government-unique standard in the first year that it is used and in each subsequent year until such use is rescinded, other agencies report use of a government-unique standard only in the first year of its use. For this report, an effort was made to normalize the reported data in a manner consistent with the spirit of the NTTAA.

Table 3.1 illustrates the cumulative use of standards from FY 1997 to present by agency as well as the number introduced and withdrawn each year. Appendix C contains a list of the 72 government-unique standards and justifications reported between FY 1997 and FY 2003 that are still in use.

Table 3.1 Government-unique Standards Used in Lieu of Private Sector Standards FY 1997 – FY 2003

Agency	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
DOD	*	*	*	*	*	*	*
HHS	3	3	3	3	3	3	3
HUD				2	2	2	2
DOL					1	2	4
DOT	1	2	2	2	2	3	3
EPA		4	29	30	40	45	50
GSA				3	2	2	3
NASA	*	*	*	*	*	*	*
NARA				1	1	1	1
CPSC				1	1	1	2
GPO				4	4	4	4
New Uses	+4	+5	+25	+12	+11	+7	+9
Discontinued					-1		
Total in Use	**4**	**9**	**34**	**46**	**56**	**63**	**72**

* DOD and NASA report on a categorical basis in accordance with Section 12 of OMB Circular A-119.

Agencies were not asked to report in FY 1997 those government-unique standards already in place at the onset of the NTTAA and OMB Circular A-119 reporting requirements. Consequently, there is no data presently available to indicate how many government-unique standards introduced more than seven years ago are still in use that

could possibly be withdrawn and replaced by more current, relevant and cost-saving voluntary consensus standards. Therefore, NIST will encourage agencies to intensify their efforts in future years to review government-unique standards uses that are five years old or older to determine if suitable voluntary consensus standards are now available for substitution. Also, for future reporting periods NIST will call on agencies to specifically report ongoing use of previously reported government-unique standards such as those listed in Appendix C and to identify additions, deletions, and substitutions of government-unique standards that occur during the reporting period as is captured in Table 3.1.

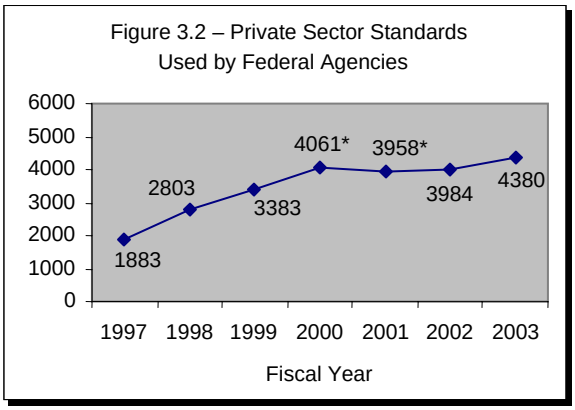
Table 3.1 indicates that agencies continue to develop a minimal number of government-unique standards each year. Agencies report that these additions are necessary in order to fulfill demands of higher performance specifications and measurements as well as to accommodate highly specialized technologies.

OMB Circular A-119 allows federal agencies to report the number of private sector standards they have used on either a categorical or transactional basis as outlined in Paragraph 11 and Paragraph 12 of the Circular, respectively. In short, under the categorical option, agencies that make extensive use of standards in procurement activities are not required to list individually all of the government-unique standards they used in lieu of private sector standards during the period. Thus, the numbers represented in Table 3.1 do not fully encompass all of the government-unique standards used in lieu of private sector standards by federal agencies during FY 2003. Only two agencies, the Department of Defense (DOD) and the National Aeronautics and Space Administration (NASA), opted to report their use of government-unique standards in lieu of private sector standards on a categorical basis for FY 2003. However, both DOD and NASA have always reported this way for prior reporting periods. Therefore, the data points in Table 3.1 consistently represent government-unique standards used in lieu of private sector standards for the rest of reporting agencies.

The practice of using government-unique standards on the part of federal agencies will necessarily continue because of the highly specialized applications of technology (i.e., military, space travel, national security) in which federal agencies are involved. However, the incidence of new uses of government-unique standards has stabilized at a very low rate; only nine new standards were used for the first time during this reporting period. Agencies that continue to use government standards developed in the past instead of available voluntary consensus standards state the need to apply and to adhere to higher performance specifications and measurements than are available through commercial and/or other consensus standards. Therefore, while the government-unique standards listed may appear at face value to be duplicative of available private sector standards, the health, environmental and safety benefits of their use balance the costs. Examples include the Department of Transportation's (DOT) Performance-Based Brake Testing standards for large trucks and buses, the Environmental Protection Agency's (EPA) Methods for testing air quality, and the Department of Health and Human Services/Food and Drug Administration's (HHS/FDA) Guidelines on Aseptic Processing.

3.2 Federal Agency Use of Private Sector Standards

This measure provides a general indication of the frequency with which government agencies used private sector standards during the reporting period. In any reporting year, the total number of private sector standards used by all government agencies will vary based largely on current operational priorities for that period. As with the previous measures, this one can be affected by changes in the accuracy with which federal agencies are able to determine and report their use of standards during the reporting period.

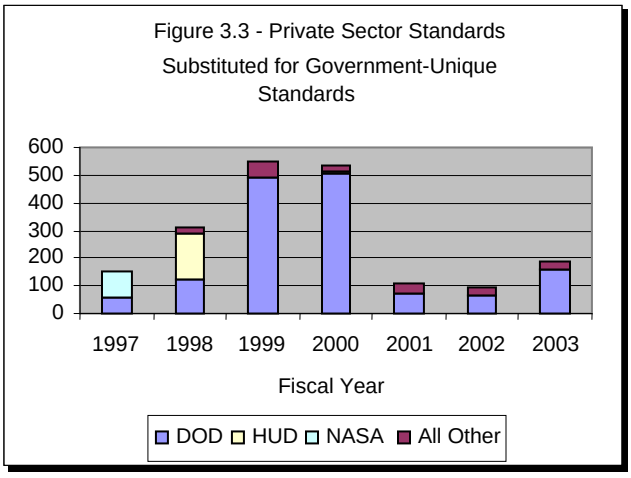


* Due to lack of available data, amounts for FY 2000 and FY 2001 contain estimated Private Sector Standards use for Department of Interior.

As illustrated by Figure 3.2, the total number of private sector standards in use by federal agencies has grown rather steadily since the onset of agency reporting under the NTTAA. (The sharp increase indicated in FY 2000 was due largely to a reported increase of more than 1500 VCS used by the Department of the Interior. While this irregularity is thought to be a reporting error, Interior is unable to confirm a more accurate figure.)

In FY 2003, changes in standards use varied widely on an agency-by-agency basis; however, the positive net change of nearly 400 new uses of private sector standards again demonstrates the progress made by federal agencies in complying with the NTTAA and Circular A-119. The positive trend seen in the chart indicates overall that, as needs arise within federal agencies for new standards, the agencies are increasingly looking to the private sector to fulfill government's needs rather than create new government-unique standards.

3.3 Private Sector Standards Substituted for Government-Unique Standards



Once again, a significant number of private sector standards were substituted for government-unique standards during the reporting period, which attests to the fulfillment of Section 12 of the NTTAA (P.L. 104-113). These figures are represented graphically in Figure 3.3. As in previous years, the Department of Defense was responsible for the largest number of substitutions. Since 1999, DOD has accounted for the majority of the private sector standards substitutions in any given

year. In FY 2003, DOD substitutions accounted for about 85 percent of the total. The standards substituted address a diverse set of technologies including metals and alloys, and manufactured parts.

3.4 Summary Observations

It is important to caution the reader that reliance upon numbers alone for an understanding of federal agency standards use can be misleading. For example, an increase in the use of government-unique standards used in lieu of private sector standards may not signal a negative development if national priorities such as homeland security require such use. Likewise, the use of a management system standard such as ISO 9000 or ISO 14000 can be a far more significant event and can have a much more profound effect on a federal agency's activities, including its regulated and/or affected procurement communities, than use of a specific test method. Yet, the use of each standard may be counted only once by a reporting agency. At any rate, while there is much more substance to federal use of standards than can be discerned through a cursory review of reported figures, the overall trends are clear—federal agencies are increasing their reliance upon private sector standards.

4.0 Federal Participation in Private Sector Bodies

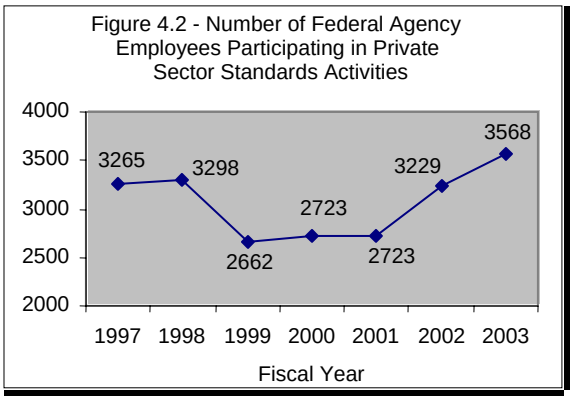
OMB Circular A-119 states that federal agencies "must consult with voluntary consensus standards bodies, both domestic and international, and must participate with such bodies in the development of voluntary consensus standards when consultation and participation is in the public interest and is compatible with their missions, authorities, priorities, and budget resources." The Circular goes on to declare that "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 Federal Agency Participation in Private Sector Standards Development Activities

Federal agencies reported participation in 433 private sector standards developing organizations during FY 2003. This is the largest number of non-government standards developing organizations with federal agency participants recorded since 2001 when NIST began collecting this data. This total includes ANSI-accredited voluntary consensus standards developers, trade associations and industry consortia. The list also contains both domestic and international organizations. In addition to participating at the committee level, federal representatives also serve in various other ways within these organizations, sometimes serving in leadership roles that include secretariats, office holders and board members. Nevertheless, private sector standards developers assert that even greater federal agency participation is necessary in order to bring forth government input on important standards-related matters.

4.2 Federal Agency Employees Participating in Private Sector Standards Bodies

In the aggregate, federal agencies once again reported higher net numbers of participation in standards developing activities in FY 2003, another indicator of the increased attention being paid by agencies to standards activities and use. The gains are largely attributable to more complete and accurate reporting of employee participation on the part of a handful of responding agencies.



4.3 Summary Observations

As stated above, the reported increases in recent years of federal agency involvement in private sector standards development activities signifies an overall improved capability on the part of federal agencies to gauge and report their activity levels in these areas. Some clear benefits of better accounting are that agencies can better manage their existing resources, and they are able to more effectively focus their efforts on standards that further mission-related priorities.

Anecdotally, federal agencies assert that maintaining their current levels of participation in standards developing organizations is becoming increasingly difficult. Competing organizational priorities, dwindling budget resources and anticipation in coming years of accelerated losses due to retirement of experienced staff are just some of the reasons for concern in this area among agency Standards Executives. It is also true that these factors are more prevalent in some agencies than in others, resulting in noticeable variability across the agencies with respect to the current status of their individual efforts to implement the requirements of the NTTAA and OMB Circular A-119.

5.0 Federal Agency Conformity Assessment Activity

Conformity assessment includes all activities concerned with determining directly or indirectly that relevant requirements in standards or regulations are fulfilled. Conformity assessment includes: sampling and testing; inspection; certification; management systems assessment and registration; accreditation of the competence of the aforementioned activities and recognition of an accreditation program's capability. The NTTAA directs NIST to coordinate government standards activities and conformity assessment activities with private sector standards activities and conformity assessment activities. In accordance with OMB Circular A-119, NIST issued guidance[1] to federal agencies for the purpose of eliminating unnecessary duplication and complexity in the development and promulgation of conformity assessment requirements and measures.

[1] 15 CFR Part 287, *Guidance on Federal Conformity Assessment Activities*, Federal Register: August 10, 2000 (Volume 65, Number 155)

There are several examples of agencies using existing public and private sector conformity assessment systems to reduce the duplication of programs and associated costs. For instance, NIST cooperates with the National Cooperation for Laboratory Accreditation (NACLA) through the NIST/ NACLA Memorandum of Understanding which states that "NIST and NACLA will encourage the use by government and the private sector of such accreditation bodies by informing them of the NACLA recognition process and inviting their participation in that process." In another example, the Department of Energy has endorsed the mission and vision of NACLA, part of which involves encouraging DOE laboratories and organizations to become users of the NACLA accreditation body recognition process and to join NACLA as member organizations. Other examples of ongoing public-private cooperation in conformity assessment activities include the following:

- EPA currently recognizes the American Industrial Hygiene Association and the American Association for Laboratory Accreditation (A2LA) as accrediting organizations for its National Lead Laboratory Accreditation Program (NLLAP).
- A2LA and NIST's National Voluntary Laboratory Accreditation Program (NVLAP) are approved accreditation bodies under the U.S. Federal Communications Commission (FCC) program that requires manufacturers and suppliers of personal computers and computer peripherals who intend to use a "Declaration of Conformity" on their products to have the products tested by an accredited Electromagnetic Compatibility (EMC) laboratory.

Federal agencies continue to participate in a variety of conformity assessment activities that are either conducted by private sector organizations or are government-run activities that encourage private sector participation. A number of federal agencies are working jointly with other agencies and non-governmental organizations in the development of conformity assessment policies and guidelines.

6.0 Evaluation of the Effectiveness of OMB Circular A-119

OMB Circular A-119 provides an opportunity for federal agencies to offer commentary on the effectiveness of the Circular. The remarks offered by federal agencies for FY 2003 were mostly positive. Some examples of those comments are paraphrased below:

- The Consumer Product Safety Commission stated that during FY 2003, the Commission's efforts to enhance voluntary safety standards development were complemented by the overall federal policy set forth in the Circular.
- The Department of Defense affirmed that the A-119 policy mandating that government agencies review their respective voluntary consensus standards programs at least once a year is an excellent means of determining if agencies are relying on government-unique standards to a greater extent than is necessary.
- The National Aeronautics and Space Administration stated that the Circular continues to provide stimulus for NASA's efforts to "enhance the use of Voluntary Consensus Standards, challenge the need for NASA-unique Technical

Standards requirements, and improve its Technical Standards System." As a result, NASA has increased its participation with Voluntary Consensus Standards bodies in standards activities by 10 percent from FY 2002."

On the other hand, some agencies voiced a desire for more precise instructions on how to report their use of standards. These and other issues surrounding federal agencies' ability to effectively comply with the Circular will be addressed by the Interagency Committee on Standards Policy (ICSP) during FY 2004.

7.0 The Interagency Committee on Standards Policy

As set out in Section 13 of OMB Circular A-119, the Interagency Committee on Standards Policy (ICSP) is directed to advise the Secretary of Commerce and other Executive Branch agencies in standards policy matters. The Committee reports to the Secretary of Commerce through the Director of NIST. The ICSP seeks to promote effective and consistent standards policies in furtherance of U.S. domestic and foreign goals and to foster cooperative participation by the Federal government and U.S. industry and other private organizations in standards activities, including the related activities of product testing, quality system registration, certification, and accreditation.

Chaired by NIST, the committee had as many as 45 members during FY 2003, including agency Standards Executives and their alternates, NIST support staff and representation from OMB. Six agencies had vacant Standards Executive positions. In May 2003, the ICSP, through the Secretary of Commerce, made requests of five federal agency heads to appoint Standards Executives to fill existing vacancies on the ICSP and to achieve representation for the newly formed Department of Homeland Security. The ICSP Chair plans to request through the Secretary one additional appointment to represent the newly formed Access Board, formerly the Architectural and Transportation Barrier Compliance Board, an independent Federal Board originally created by Congress in 1973. The use of government-unique and private sector standards as well as conformity assessment activities will very likely figure in the programs of both the DHS and the Access Board; therefore, membership on and coordination with the ICSP should prove advantageous for both organizations and for the ICSP as a whole.

The ICSP met three times in FY 2003 at various locations in the Washington Metropolitan Area. The following examples are but a handful of the various topics discussed by the committee at those meetings:

- The importance of standards in support of homeland security objectives, and the addition of representation from the newly formed Department of Homeland Security;
- Collaboration with the private sector through the Homeland Security Standards Panel established by the American National Standards Institute (ANSI);
- Ramifications for federal agencies stemming from the *SBCCI, Inc. v. Veeck* case;
- Private sector concerns regarding use by multiple federal agencies of the Leadership in Energy and Environmental Design (LEED) Green Building Rating

System for environmentally sustainable buildings;
- Various discussions among committee members regarding improved methods of selecting standards for use, improved management of standards activities, and streamlined annual activity reporting.

8.0 Challenges and Opportunities

In order to comply successfully with the Act and the Circular, federal agencies must work externally to increase their use of private sector standards and to increase their participation in private sector standards development activities. At the same time, federal agencies must improve internally their ability to assess their activities and to make accurate reports of their activities for incorporation into the NTTAA Annual Reports. Clearly, federal agencies are making advances in both of these areas.

At the same time, federal agencies continue to deal constructively with significant challenges to their efforts to fully implement the requirements of the NTTAA. Diminishing assets and competing organizational priorities have caused agencies to make difficult decisions regarding resource allocations as they try to maintain support for standards-related activities at levels necessary to carry out their missions. In addition, agencies regularly experience personnel turnover at all organizational levels due to reorganizations, accelerating retirements among senior level career personnel, and normal attrition. These changes make it very difficult for federal agencies to retain high-level managers who appreciate the importance of standards and who visibly support standards-related activities. Likewise, federal agencies struggle to retain knowledge of standards policies, responsibilities and practices at the staff level.

In an effort to address at least some of these challenges, NIST is developing training programs with the goal of acquainting federal agency leaders, managers and staff with their roles and responsibilities under the NTTAA as well as the benefits to government of NTTAA implementation. Under this initiative, practical guidance will also be offered in effective methods of managing and reporting standards activities. NIST also intends to create a handbook that contains useful and concise information for federal employees who make decisions regarding use of standards.

In a further effort to improve information sharing among federal agencies as well as between government and the private sector, NIST has created an Internet portal located at www.standards.gov. A major goal of this portal is to provide a one-stop, e-government location for information related to the use of voluntary consensus standards in government. It can also serve as a forum for providing ongoing, practical guidance to agencies on standards-related matters. Appendix D is provided to introduce readers to the store of information that is available at this site. NIST welcomes any suggestions on content and format improvements that might improve the usability of this portal.

9.0 Conclusion

This year's report is evidence that agencies are committed to carrying out Section 12 of

the NTTAA, which was enacted to encourage the Federal government to rely on private sector, voluntary consensus standards wherever possible. There is ample evidence to suggest that the Federal government as a whole is improving incrementally from year-to-year both in its use of private sector standards and in the level of its participation in private sector standards development activities. From FY 1997-FY 2003, the government has used nearly 2,000 private sector standards in place of government-unique standards. Furthermore, federal agencies are developing very few government-unique standards, and federal agencies overall are getting better at reporting the full extent of their standards-related activities in an accurate and timely manner. Private sector stakeholders continue to seek additional participation to meet their needs for government input in important standards development activities.

For additional information, individual agency report submissions may be obtained online at www.standards.gov or by contacting the Standards Coordination and Conformity Group within Technology Services at NIST.

Appendix A: FY 2003 List of Reporting Federal Agencies

Note: This report presents the standards and conformity assessment activities of twenty-five (25) federal agencies as listed below. Data for the Department of Homeland Security (DHS) is not included in this report, as the Department was not fully formed and operational with respect to its standards management operations in time to file a submission for FY 2003. Consequently, reports from the Federal Emergency Management Agency and the National Communications System, both of which reported as independent agencies in years past, as well as the US Coast Guard, which formerly reported under the Department of Transportation, are not included in this report, as those agencies were all subsumed under the newly established DHS during FY 2003.

Agency	Acronym
Department of Agriculture	USDA
Department of Commerce	DOC
Department of Defense	DOD
Department of Energy	DOE
Department of Education	ED
Department of Health and Human Services	HHS
Department of Housing and Urban Development	HUD
Department of the Interior	DOI
Department of Justice	DOJ
Department of Labor	DOL
Department of State	DOS
Department of Transportation	DOT
Department of the Treasury	TRES
Department of Veterans Affairs	VA
Environmental Protection Agency	EPA
Agency for International Development	USAID
General Services Administration	GSA
National Archives and Records Administration	NARA
National Aeronautics and Space Administration	NASA
National Science Foundation	NSF
Consumer Product Safety Commission	CPSC
Federal Communications Commission	FCC
Federal Trade Commission	FTC
Nuclear Regulatory Commission	NRC
Government Printing Office	GPO

Appendix B: Federal Agency Activities Related to Use of Private Sector Standards and Conformity Assessment

I Agency	II Government-unique standards in use in lieu of voluntary consensus standards	III Voluntary consensus standards substituted for government-unique standards in FY 2003	IV Voluntary consensus standards in use in FY 2003	V Employee participation in voluntary consensus standards bodies in FY 2003	VI Change from previous year	VII Voluntary consensus standards bodies with agency participation in FY 2003	VIII Change from previous year
USDA	0	0	163	106	24	42	-9
DOC	0	0	0	415	-24	118	-47
DOD	*	156	8803	450	-11	55	0
DOE	0	0	1187	674	-7	85	28
ED	0	0	17	2	0	1	0
HHS	3	11	663	623	108	165	126
HUD	2	1	300	10	0	5	0
DOI	0	0	242	645	345	25	6
DOJ	0	0	1	5	0	1	-1
DOL	4	0	117	61	1	16	1
DOS	0	0	0	0	0	0	0
DOT	3	0	323	167	-9	30	-24
TRES	0	0	99	3	-63	3	-5
VA	0	0	0	4	-10	17	-3
EPA	50	0	109	44	2	21	-1
USAID	0	0	0	0	0	0	0
GSA	3	0	391	25	-19	26	2
NARA	1	16	52	13	0	10	-2
NASA	*	1	266	144	13	33	-3
NSF	0	0	0	3	3	7	7
CPSC	2	0	0	31	2	7	-1
FCC	0	0	0	5	0	7	0
FTC	0	0	0	0	0	0	0
NRC	0	0	117	136	-8	15	0
GPO	4	0	126	2	2	4	4
Totals	72	185	4380	3568	349		

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

Appendix C: Government-Unique Standards Used in lieu of Voluntary Consensus Standards in FY 2003

Note: Government-unique standards denoted by (*) indicate instances of use reported for the first time in FY 2003.

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
1	HHS	FDA Guidelines on Aseptic Processing (1987)	ISO 13408-1 – Aseptic Processing of Health Care Products, Part 1, General Requirements	FDA/CBER is not using the ISO standard because the applicability of these requirements is limited to only portions of aseptically manufactured biologics and does not include filtration, freeze-drying, sterilization in place, cleaning in place, or barrier-isolator technology. There are also significant issues related to aseptically produced bulk drug substance that are not included in the document
2	HHS	FR Notice dated June 17, 1994 Tentative Final Monograph for Health Care Antiseptic Drug Products; Proposed Rule	ASTM Standard E1115 – Test Method for Evaluation of Surgical Hand Scrub Formulations	Sensitivity and bias of the ASTM Standard has not been established.
			ASTM Standard E1173-93 – Standard Test Method of an Evaluation of Preoperative, Precatheterization, or Preinjection Skin Preparations	Sensitivity and bias of the ASTM Standard has not been established.
			ASTM Standard E1174-00 – Standard Test Method for the Evaluation of the Effectiveness of Health Care Personnel or Consumer Handwash Formulations	Sensitivity and bias of the ASTM Standard has not been established.
3	HHS	National Standard Format (NSF)	ANSI X12 837	The NSF is used widely across the health care payment industry and has become a defacto national standard. However, the Centers for Medicare and Medicaid Services (CMS) have directed their contractors to discontinue use of the NSF standard and replace it with ANSI X12 837.
4	HUD	24 CFR 200.935 -- Administrator qualifications and procedures for HUD building products certification programs.	ANSI A119.1 N – Recreation Vehicles	HUD Building-Product Standards & Certification Programs. HUD was required by legislation to "establish federal construction and safety standards for manufactured homes and to authorize manufactured home safety research and development." Recently, HUD retained a

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
				private consensus body (NFPA) to update and modernize the Manufactured Home Standards. At the conclusion of the development process, NFPA will submit the revised standard to HUD for regulatory adoption.
5	HUD	24 CFR 3280 – Manufactured Home Construction and Safety Standards	ANSI A119.1, Recreation Vehicles, and NFPA 501C, Standard on Recreational Vehicles.	HUD-Unique Manufactured Home Construction & Safety Standards. HUD was required by legislation to "establish federal construction and safety standards for manufactured homes and to authorize manufactured home safety research and development." Recently, HUD retained a private consensus body (NFPA) to update and modernize the Manufactured Home Standards. At the conclusion of the development process, NFPA will submit the revised standard to HUD for regulatory adoption.
6	DOL	Electric Motor-Drive Equipment rule	IEEE Standard 242-1986 Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems (IEEE Buff Book) NFPA 70 - National Electrical Code®	The MSHA rule is a design-specific standard. The NFPA and IEEE standards were used as a source for the rule; however, the exact requirements of the rule were tailored to apply specifically to electric circuits and equipment used in the coal mining industry.
7*	DOL	Exit Routes, Emergency Action Plans, and Fire Prevention Plans, 29 CFR 1910, Subpart E	Life Safety Code, NFPA 101-2000	The OSHA standard addresses only workplace conditions whereas the NFPA Life Safety Code goes beyond workplaces. However, in the final rule OSHA stated that it had evaluated the NFPA Standard 101, Life Safety Code, (NFPA 101-2000) and concluded that it provided comparable safety to the Exit Route Standards. Therefore, the Agency stated that any employer who complied with the NFPA 101-2000 instead of the OSHA Standard for Exit Routes would be in compliance.
8*	DOL	Sanitary Toilets in Coal Mines, 30 CFR 71, Subpart E	Non-Sewered Waste Disposal Systems--Minimum Requirements, ANSI Z4.3-1987	The ANSI standard was not incorporated by reference because certain design criteria allowed in the ANSI standard, if implemented in an underground coal mine, could present health or safety hazards. For instance, combustion or incinerating toilets could introduce an ignition source which would create a fire hazard. For certain other design criteria found in the ANSI standard, sewage could seep into the groundwater, or overflow caused by rain or run-off could contaminate portions of the mine.
9	DOL	Steel Erection Standards	ANSI A10.13, Steel Erection; ASME/ANSI	Many consensus standards were relied upon for various provisions in the final rule, but there was

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			B30 series Cranes standards	no one consensus standard available that covered all of the topics covered by OSHA's final rule.
10	DOT	Brake Performance, 49 CFR 393.52, – FMCSA's Performance-Based Brake Testers (PBBTs) requirement.	SAE J667 – Brake Test Code Inertia Dynamometer (cancelled February, 2002) SAE J1854 – Brake Force Distribution Performance Guide – Trucks and Buses	FMCSA used government-unique standards in lieu of voluntary consensus standards when it implemented its final rule to allow inspectors to use performance-based brake testers (PBBTs) to check the brakes on large trucks and buses for compliance with federal safety standards and to issue citations when these vehicles fail (67 FR 51770, August 9, 2002). The FMCSA evaluated several PBBTs during a round robin test series to assess their functional performance and potential use in law enforcement. The standard, a specific configuration of brake forces and wheel loads on a heavy-duty vehicle, was used to evaluate the candidate PBBTs and their operating protocols. The agency's rationale for use of the government-unique standards was to verify that these measurements and new technology could be used by law enforcement as an alternative to stopping distance tests or on-road deceleration tests. PBBTs are expected to save time and their use could increase the number of commercial motor vehicles that can be inspected in a given time. Only PBBTs that meet specifications developed by the FMCSA can be used to determine compliance with the Federal Motor Carrier Safety Regulations. The final rule represents a culmination of agency research that began in the early 1990s.
11	DOT	63 FR 17976; April 13, 1998 - Product Safety Signs and Labels	ANSI Z535.4 - ANSI Requirements for Color Coded Header Messages for the Different Levels of Hazard	Since agency labeling decisions are highly dependent on the facts regarding the specific hazard being addressed, NHTSA anticipates making case-by-case determinations of the extent to which it should follow voluntary standards versus information from focus groups and other sources. NHTSA will rely on its own expertise and judgment in making determinations under the NTTAA and the statutory provisions regarding vehicle safety standards.
12	DOT	Air Bag Warning Label (1997)	ANSI ISO	The Air Bag Warning Label uses yellow as the background color, instead of orange, in accordance with an ANSI standard, and uses a graphic developed by Chrysler Corporation to depict the hazards of being too close to an air bag, instead of the graphic recommended by the ISO. These decisions were based on focus group testing sponsored by the agency which strongly indicated that these unique requirements would be far more effective with respect to safety than

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
				the industry standards.
13	EPA	40 CFR 89 – Control of Emissions from New and In-Use Non-Road Compression Ignition Engines	ISO 8178 – Reciprocating Internal Combustions Engines, Exhaust Emission Measurement	Procedures would be impractical because they rely too heavily on reference testing conditions. Agency decides instead to continue to rely on procedures outlined in 40 CFR Part 90.
14	EPA	40 CFR 90 – Control of Emission from Non-Road Spark Ignition Engines at or below 19KV	ISO 8178 – Reciprocating Internal Combustions Engines, Exhaust Emission Measurement	Procedures would be impractical because they rely too heavily on reference testing conditions. Agency decides instead to continue to rely on procedures outlined in 40 CFR Part 90.
15	EPA	40 CFR 92 – Control of Air Pollution from Locomotives and Locomotive Engines	ISO 8178 – Reciprocating Internal Combustions Engines, Exhaust Emission Measurement	Procedures would be impractical because they rely too heavily on reference testing conditions. Agency decides instead to continue to rely on procedures outlined in 40 CFR Part 90.
16	EPA	EPA Method 1 – Traverse Points, Stationary Sources	ASTM D3154-00, Standard Method for Average Velocity in a Duct (Pitot Tube Method)	1. The standard appears to lack in quality control and quality assurance requirements. It does not include the following: (1) Proof that openings of standard pitot tube have not plugged during the test; (2) if differential pressure gauges other than inclined manometers (e.g., magnehelic gauges) are used, their calibration must be checked after each test series; and (3) the frequency and validity range for calibration of the temperature sensors. 2. They are too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
			ASTM D3154-91 (1995), "Standard Method for Average Velocity in a Duct (Pitot Tube Method)"	Is too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
17	EPA	EPA Method 2 – Velocity and S-type Pitot	ASTM 3796-90 (1998), "Standard Practice for Calibration of Type S Pitot Tubes"	The standard lacked sufficient quality control specifications to ensure meeting the regulatory levels required in the rule; the standard also includes detection limits not consistent with the rule. Rule: "National Emission Standards for Hazardous Air Pollutants; Engine Test Cells/Stands"
			ASTM D3464-96 (2001), Standard Test Method Average Velocity in a Duct Using a Thermal Anemometer	Applicability specifications are not clearly defined, e.g., range of gas composition, temperature limits. Also, the lack of supporting quality assurance data for the calibration procedures and specifications, and certain variability issues that are not adequately addressed by the standard limit EPA's ability to make a definitive comparison of the method in these areas.

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			ISO 10780:1994, Stationary Source Emissions--Measurement of Velocity and Volume Flowrate of Gas Streams in Ducts	The standard recommends the use of an L-shaped pitot, which historically has not been recommended by EPA. The EPA specifies the S-type design, which has large openings that are less likely to plug up with dust.
			ASTM D3154-00, Standard Method for Average Velocity in a Duct (Pitot Tube Method)	1. The standard appears to lack in quality control and quality assurance requirements. It does not include the following: (1) Proof that openings of standard pitot tube have not plugged during the test; (2) if differential pressure gauges other than inclined manometers (e.g., magnehelic gauges) are used, their calibration must be checked after each test series; and (3) the frequency and validity range for calibration of the temperature sensors. 2. They are too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
			ASTM D3154-91 (1995), "Standard Method for Average Velocity in a Duct (Pitot Tube Method)"	Is too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
18	EPA	EPA Method 2C – Velocity and Flow Rate, Standard Pitot	ASTM D3154-00, Standard Method for Average Velocity in a Duct (Pitot Tube Method)	1. The standard appears to lack in quality control and quality assurance requirements. It does not include the following: (1) Proof that openings of standard pitot tube have not plugged during the test; (2) if differential pressure gauges other than inclined manometers (e.g., magnehelic gauges) are used, their calibration must be checked after each test series; and (3) the frequency and validity range for calibration of the temperature sensors. 2. They are too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
19	EPA	EPA Method 3 – Molecular Weight Carbon Dioxide, Oxygen	ASME C00031 or PTC 19-10-1981--part 10, "Flue and Exhaust Gas Analyses"	Is too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
			ASTM D3154-00, Standard Method for Average Velocity in a Duct (Pitot Tube Method)	1. The standard appears to lack in quality control and quality assurance requirements. It does not include the following: (1) Proof that openings of standard pitot tube have not plugged during the test; (2) if differential pressure gauges other than inclined manometers (e.g.,

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
				magnehelic gauges) are used, their calibration must be checked after each test series; and (3) the frequency and validity range for calibration of the temperature sensors. 2. They are too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
20	EPA	EPA Method 3A – Carbon Dioxide and Oxygen Concentrations, IAP	ASTM D5835-95, Standard Practice for Sampling Stationary Source Emissions for Automated Determination of Gas Concentration	1. They lack in detail and quality assurance/quality control requirements. Specifically, these two standards do not include the following: (1) Sensitivity of the method; (2) acceptable levels of analyzer calibration error; (3) acceptable levels of sampling system bias; (4) zero drift and calibration drift limits, time span, and required testing frequency; (5) a method to test the interference response of the analyzer; (6) procedures to determine the minimum sampling time per run and minimum measurement time; and (7) specifications for data recorders, in terms of resolution (all types) and recording intervals (digital and analog recorders, only). 2. Is too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
			CAN/CSA Z223.2-M86(1986), Method for the Continuous Measurement of Oxygen, Carbon Dioxide, Carbon Monoxide, Sulphur Dioxide, and Oxides of Nitrogen in Enclosed Combustion Flue Gas Stream	1. It does not include quantitative specifications for measurement system performance, most notably the calibration procedures and instrument performance characteristics. The instrument performance characteristics that are provided are nonmandatory and also do not provide the same level of quality assurance as the EPA methods. For example, the zero and span/calibration drift is only checked weekly, whereas the EPA methods requires drift checks after each run. 2. Is too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
			ISO 10396:1993, Stationary Source Emissions: Sampling for the Automated Determination of Gas Concentrations	1. They lack in detail and quality assurance/quality control requirements. Specifically, these two standards do not include the following: (1) Sensitivity of the method; (2) acceptable levels of analyzer calibration error; (3) acceptable levels of sampling system bias; (4) zero drift and calibration drift limits, time span, and required testing frequency; (5) a method to test the interference response of the analyzer; (6) procedures to determine the minimum sampling time per run and minimum measurement time; and (7) specifications for

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
				data recorders, in terms of resolution (all types) and recording intervals (digital and analog recorders, only). 2. Is too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
			ISO 12039:2001, Stationary Source Emissions--Determination of Carbon Monoxide, Carbon Dioxide, and Oxygen--Automated Methods	This ISO standard is similar to EPA Method 3A, but is missing some key features. In terms of sampling, the hardware required by ISO 12039:2001 does not include a 3-way calibration valve assembly or equivalent to block the sample gas flow while calibration gases are introduced. In its calibration procedures, ISO 12039:2001 only specifies a two-point calibration while EPA Method 3A specifies a three-point calibration. Also, ISO 12039:2001 does not specify performance criteria for calibration error, calibration drift, or sampling system bias tests as in the EPA method, although checks of these quality control features are required by the ISO standard.
21	EPA	Method 3B – Oxygen, Carbon Dioxide, Carbon Monoxide, Emission Rate Correction Factor	ASTM D3154-00, Standard Method for Average Velocity in a Duct (Pitot Tube Method)	1. The standard appears to lack in quality control and quality assurance requirements. It does not include the following: (1) Proof that openings of standard pitot tube have not plugged during the test; (2) if differential pressure gauges other than inclined manometers (e.g., magnehelic gauges) are used, their calibration must be checked after each test series; and (3) the frequency and validity range for calibration of the temperature sensors. 2. They are too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
			ASTM D3154-91 (1995), "Standard Method for Average Velocity in a Duct (Pitot Tube Method)"	Is too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
22	EPA	EPA Method 4 – Moisture Content in Stack Gases	ASTM E337-84 (1996), "Standard Test Method for Measuring Humidity with a Psychrometer (the Measurement of Wet- and Dry-Bulb Temperatures)"	They are too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
			ASTM D3154-00, Standard Method for	1. The standard appears to lack in quality control and quality assurance requirements. It

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			Average Velocity in a Duct (Pitot Tube Method)	does not include the following: (1) Proof that openings of standard pitot tube have not plugged during the test; (2) if differential pressure gauges other than inclined manometers (e.g., magnehelic gauges) are used, their calibration must be checked after each test series; and (3) the frequency and validity range for calibration of the temperature sensors. 2. They are too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
			ASTM D3154-91 (1995), "Standard Method for Average Velocity in a Duct (Pitot Tube Method)"	Is too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
23	EPA	EPA Method 5 – Particulate Matter, Stationary Sources	ASME PTC-38-80 R85 or C00049, "Determination of the Concentration of Particulate Matter in Gas Streams"	It lacks sufficient quality assurance and quality control requirements necessary for EPA compliance assurance requirements.
			ASTM D3685/D3685M-98, "Test Methods for Sampling and Determination of Particulate Matter in Stack Gases."	It lacks sufficient quality assurance and quality control requirements necessary for EPA compliance assurance requirements.
			ISO 9096:1992, "Determination of Concentration and Mass Flow Rate of Particulate Matter in Gas Carrying Ducts--Manual Gravimetric Method"	It lacks sufficient quality assurance and quality control requirements necessary for EPA compliance assurance requirements.
24	EPA	EPA Method 5i – Low Level Particulate Matter, Stationary Sources	ASTM D6331-98	This standard does not have paired trains as specified in method 5 and does not include some quality control procedures specified in the EPA method and which are appropriate to use in this rule.
25	EPA	EPA Method 6 – Sulphur Dioxide Emissions	ASME C00031 or PTC 19-10-1981 - Part 10 Flue and Exhaust Gas Analyses	Too broad to be useful in regulatory sense. Covers Methods 3, 6, 7, and 15 with variants.
			ISO 7934:1998 - Stationary Source Emissions -	This standard is only applicable to sources with 30 mg/m3 SO2 or more. In addition, this method does not separate SO3 from SO2 as does

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			Determination of the Mass Concentration of Sulfur Dioxide - Hydrogen Peroxide/Barium Perchlorate/ Thorin Method	EPA Method 6; therefore, this method is not valid if more than a negligible amount of SO3 is present. Also, does not address ammonia interferences.
			ISO 11632:1998 - Stationary Source Emissions - Determination of the Mass Concentration of Sulfur Dioxide - Ion Chromatography	ISO 11632:1998 - Stationary Source Emissions - Determination of the Mass Concentration of Sulfur Dioxide - Ion Chromatography (NIST HAS A CALL IN TO EPA REGARDING THIS BOX)
26	EPA	EPA Method 6c – Sulphur Dioxide Emissions, Stationary by IAP	ISO 10396:1993 - Stationary Source Emissions: Sampling for the Automated Determination of Gas Concentrations	Duplicates Methods 3a, 6c, 7e, 10, ALT 004 and CTM 022. Lacks in detail and quality assurance plus quality control requirements. Similar to ASTM D5835.
			ASTM D5835-95 - Standard Practice for Sampling Stationary Source Emissions for Automated Determination of Gas Concentration.	Similar to Methods 3a, 6c, 7e, 10, ALT 004 and CTM 022. Lacks in detail and quality assurance and quality control requirements. Very similar to ISO 10396.
			CAN/CSA Z223.2-M86 - (1986) Method for the Continuous Measurement of Oxygen, Carbon Doixide, Carbon Monoxide, Sulphur Dioxide, and Oxides of Nitrogen in Enclosed Combustion Flue Gas Streams	Too general. This standard lacks in detail and quality assurance/quality control requirements. Appendices with valid quality control information are not a required
27	EPA	EPA Method 7 – Nitrogen Oxide Emissions, Stationary Sources	ASME C00031 or PTC 19-10-1981 - Part 10 Flue and Exhaust Gas Analyses	Too broad to be useful in regulatory sense. Covers Methods 3, 6, 7, and 15 with variants.
28	EPA	EPA Method 7e – Nitrogen Oxide, Instrumental	ISO 10396:1993 - Stationary Source Emissions: Sampling for the Automated Determination of Gas Concentrations	Duplicates Methods 3a, 6c, 7e, 10, ALT 004 and CTM 022. Lacks in detail and quality assurance plus quality control requirements. Similar to ASTM D5835.
			ASTM D5835-95 -	Similar to Methods 3a, 6c, 7e, 10, ALT 004 and

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			Standard Practice for Sampling Stationary Source Emissions for Automated Determination of Gas Concentration.	CTM 022. Lacks in detail and quality assurance and quality control requirements. Very similar to ISO 10396.
			CAN/CSA Z223.2-M86 - (1986) Method for the Continuous Measurement of Oxygen, Carbon Doixide, Carbon Monoxide, Sulphur Dioxide, and Oxides of Nitrogen in Enclosed Combustion Flue Gas Streams	Too general. This standard lacks in detail and quality assurance/quality control requirements. Appendices with valid quality control information are not a required part of this method.
29	EPA	EPA Method 10 – Carbon Monoxide, NDIR	ASTM D3162 (1994) Standard Test Method for Carbon Monoxide in the Atmosphere (Continuous Measurement by Non-dispersive Infrared Spectrometry)	This ASTM standard, which is stated to be applicable in the range of 0.5-100 ppm CO, does not cover the range of EPA Method 10 (20-1,000 ppm CO) at the upper end (but states that it has a lower limit of sensitivity). Also, ASTM D3162 does not provide a procedure to remove carbon dioxide interference. Therefore, this ASTM standard is not appropriate for combustion source conditions. In terms of non-dispersive infrared instrument performance specifications, ASTM D3162 has much higher maximum allowable rise and fall times (5 minutes) than EPA Method 10 (which has 30 seconds).
			CAN/CSA Z223.21-M1978, Method for the Measurement of Carbon Monoxide: 3—Method of Analysis by Non-Dispersive Infrared Spectrometry.	1. It is lacking in the following areas: (1) Sampling procedures; (2) procedures to correct for the carbon dioxide concentration; (3) instructions to correct the gas volume if CO2 traps are used; (4) specifications to certify the calibration gases are within 2 percent of the target concentration; (5) mandatory instrument performance characteristics (e.g., rise time, fall time, zero drift, span drift, and precision); (6) quantitative specification of the span value maximum as compared to the measured value: The standard specifies that the instruments should be compatible with the concentration of gases to be measured, whereas EPA Method 10 specifies that the instrument span value should be no more than 1.5 times the source performance standard. 2. Is too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
30	EPA	EPA Method 10A –	CAN/CSA Z223.21-	1. It is lacking in the following areas: (1)

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
		Carbon Monoxide for Certifying CEMS	M1978, Method for the Measurement of Carbon Monoxide: 3—Method of Analysis by Non-Dispersive Infrared Spectrometry.	Sampling procedures; (2) procedures to correct for the carbon dioxide concentration; (3) instructions to correct the gas volume if CO2 traps are used; (4) specifications to certify the calibration gases are within 2 percent of the target concentration; (5) mandatory instrument performance characteristics (e.g., rise time, fall time, zero drift, span drift, and precision); (6) quantitative specification of the span value maximum as compared to the measured value: The standard specifies that the instruments should be compatible with the concentration of gases to be measured, whereas EPA Method 10 specifies that the instrument span value should be no more than 1.5 times the source performance standard. 2. Is too general, too broad, or not sufficiently detailed to assure compliance with EPA regulatory requirements.
31	EPA	EPA Method 12 – Inorganic Lead, Stationary Sources	ASTM D4358-94 (1999), "Standard Test Method for Lead and Chromium in Air Particulate Filter Samples of Lead Chromate Type Pigment Dusts by Atomic Absorption Spectroscopy"	These ASTM standards do not require the use of glass fiber filters as in EPA Method 12 and require the use of significantly different digestion procedures that appear to be milder than the EPA Method 12 digestion procedure. For these reasons, these ASTM standards cannot be considered equivalent to EPA Method 12. Also, the subject ASTM standards do not require the use of hydrogen fluoride (HF) as in EPA Method 29 and, therefore, they cannot be used for the preparation, digestion, and analysis of Method 29 samples. Additionally, Method 29 requires the use of a glass fiber filter, whereas these three ASTM standards require cellulose filters and other probable nonglass fiber media, which cannot be considered equivalent to EPA Method 29.
			ASTM E1741-95 (1995), "Standard Practice for Preparation of Airborne Particulate Lead Samples Collected During Abatement and Construction Activities for Subsequent Analysis by Atomic Spectrometry"	These ASTM standards do not require the use of glass fiber filters as in EPA Method 12 and require the use of significantly different digestion procedures that appear to be milder than the EPA Method 12 digestion procedure. For these reasons, these ASTM standards cannot be considered equivalent to EPA Method 12. Also, the subject ASTM standards do not require the use of hydrogen fluoride (HF) as in EPA Method 29 and, therefore, they cannot be used for the preparation, digestion, and analysis of Method 29 samples. Additionally, Method 29 requires the use of a glass fiber filter, whereas these three ASTM standards require cellulose filters and other probable nonglass fiber media,

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
				which cannot be considered equivalent to EPA Method 29.
			ASTM E1979-98 (1998), "Standard Practice for Ultrasonic Extraction of Paint, Dust, Soil, and Air Samples for Subsequent Determination of Lead"	These ASTM standards do not require the use of glass fiber filters as in EPA Method 12 and require the use of significantly different digestion procedures that appear to be milder than the EPA Method 12 digestion procedure. For these reasons, these ASTM standards cannot be considered equivalent to EPA Method 12. Also, the subject ASTM standards do not require the use of hydrogen fluoride (HF) as in EPA Method 29 and, therefore, they cannot be used for the preparation, digestion, and analysis of Method 29 samples. Additionally, Method 29 requires the use of a glass fiber filter, whereas these three ASTM standards require cellulose filters and other probable nonglass fiber media, which cannot be considered equivalent to EPA Method 29.
32	EPA	EPA Method 15 – Hydrogen Sulfide/Carbon Disulfide/Carbon Sulfide	ASME C00031 or PTC 19-10-1981 - Part 10 Flue and Exhaust Gas Analyses	Too broad to be useful in regulatory sense. Covers Methods 3, 6, 7, and 15 with variants.
			ASTM D4323-84 (1997) - Standard Test Method for Hydrogen Sulfide in the Atmosphere by Rate of Change of Reflectance	ASTM D4323 only applies to concentrations of H2S from 1 ppb to 3 ppm without dilution. Many QC items are missing, such as calibration drift and sample line losses. The calibration curve is determined with only one point.
33	EPA	EPA Method 17 – Particulate Matter (PM), In Stack Filtration	ASTM D3685/3685M-95 – Standard Test Method for Sampling and Determination of Particulate Matter in Stack Gases	EPA looked at this standard for both Pulp and Paper Hazardous Air Pollutant rules and for the Small Municipal Waste Combustion rule. Contains sampling options beyond which would be considered acceptable for Method 5.
			ASME C00049	EPA looked at this standard for both Pulp and Paper Hazardous Air Pollutant rules and for the Small Municipal Waste Combustion rule. Too flexible in allowing for more train configurations than is appropriate for purposes of this rule.
34	EPA	EPA Method 18 – VOC/GC	ASTM D6060-96 (in review 2000) - Practice for Sampling of Process Vents with a Portable Gas Chromatography	This standard lacks key quality control and assurance that is required for EPA Method 18. For example: lacks acceptance criteria for calibration, details on using other collection media (e.g. solid sorbents), and reporting/ documentation requirements.
35 *	EPA	EPA Method 21 – Volatile Organic Compound (VOC) Leaks	ASTM E1211-97 - Standard Practice for Leak Detection and Location Using Surface-Mounted	This standard will detect leaks but not “classify” the leak as VOC, as in EPA Method 21. In addition, in order to detect the VOC concentration of a known VOC leak, the acoustic signal would need to be calibrated

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			Acoustic Emission Sensors	against a primary instrument. Background noise interference in some source situations could also make this standard difficult to use effectively.
36	EPA	EPA Method 23 – Dioxin and Furan (PCDD and PCDF)	European Committee for Standardization (CEN) EN 1948-3 (1997), "Determination of the Mass Concentration of PCDD'S/PCDF'S--Part 3: Identification and Quantification"	Upper and lower detection limits do not support regulatory levels specified in Rule # 68 FR 5144-01, 2003 (WL 201268) "Federal Plan Requirements for Small Municipal Waste Combustion Units Constructed On or Before August 30, 1999."
37	EPA	EPA Method 24 – Surface Coatings, Volatile Matter Content	ISO 11890-1 (2000) part 1, "Paints and Varnishes--Determination of Volatile Organic Compound (VOC) Content-Difference Method"	Measured nonvolatile matter content can vary with experimental factors such as temperature, length of heating period, size of weighing dish, and size of sample. The standard ISO 11890-1 allows for different dish weights and sample sizes than the one size (58 millimeters in diameter and sample size of 0.5 gram) of EPA Method 24. The standard ISO 11890-1 also allows for different oven temperatures and heating times depending on the type of coating, whereas EPA Method 24 requires 60 minutes heating at 110 degrees Celcius at all times. Because the EPA Method 24 test conditions and procedures "define" volatile matter, ISO 11890-1 is unacceptable as an alternative because of its different test conditions.
			ISO 11890-2 (2000) part 2, "Paints and Varnishes--Determination of Volatile Organic Compound (VOC) Content-Gas Chromatographic Method"	ISO 11890-2 only measures the VOC added to the coating and would not measure any VOC generated from the curing of the coating. The EPA Method 24 does measure "cure" VOC, which can be significant in some cases, and, therefore, ISO 11890-2 is not an acceptable alternative to this EPA method.
38	EPA	EPA Method 25 – Gaseous Nonmethane Organic Emissions	EN 12619:1999 Stationary Source Emissions--Determination of the Mass Concentration of Total Gaseous Organic Carbon at Low Concentrations in Flue Gases--Continuous Flame Ionization Detector Method	The standards do not apply to solvent process vapors in concentrations greater than 40 ppm (EN 12619) and 10 ppm carbon (ISO 14965). Methods whose upper limits are this low are too limited to be useful in measuring source emissions, which are expected to be much higher.
			ISO 14965:2000(E) Air Quality--Determination	The standards do not apply to solvent process vapors in concentrations greater than 40 ppm

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			of Total Nonmethane Organic Compounds--Cryogenic Preconcentration and Direct Flame Ionization Method	(EN 12619) and 10 ppm carbon (ISO 14965). Methods whose upper limits are this low are too limited to be useful in measuring source emissions, which are expected to be much higher.
39	EPA	EPA Method 25A – Gaseous Organic Concentration, Flame Ionization	EN 12619:1999 Stationary Source Emissions--Determination of the Mass Concentration of Total Gaseous Organic Carbon at Low Concentrations in Flue Gases--Continuous Flame Ionization Detector Method	The standards do not apply to solvent process vapors in concentrations greater than 40 ppm (EN 12619) and 10 ppm carbon (ISO 14965). Methods whose upper limits are this low are too limited to be useful in measuring source emissions, which are expected to be much higher.
			ISO 14965:2000(E) Air Quality--Determination of Total Nonmethane Organic Compounds--Cryogenic Preconcentration and Direct Flame Ionization Method	The standards do not apply to solvent process vapors in concentrations greater than 40 ppm (EN 12619) and 10 ppm carbon (ISO 14965). Methods whose upper limits are this low are too limited to be useful in measuring source emissions, which are expected to be much higher.
40	EPA	EPA Method 26 – Hydrogen Chloride, Halides, Halogens Emissions	EN 1911-1,2,3 (1998), "Stationary Source Emissions-- Manual Method of Determination of HCl--Part 1: Sampling of Gases Ratified European Text--Part 2: Gaseous Compounds Absorption Ratified European Text-- Part 3: Adsorption Solutions Analysis and Calculation Ratified European Text"	Part 3 of this standard cannot be considered equivalent to EPA Method 26 or 26A because the sample absorbing solution (water) would be expected to capture both HCl and Cl2 gas, if present, without the ability to distinguish between the two. The EPA Methods 26 and 26A use an acidified absorbing solution to first separate HCl and Cl2 gas so that they can be selectively absorbed, analyzed, and reported separately. In addition, in EN 1911 the absorption efficiency for Cl2 gas would be expected to vary as the pH of the water changed during sampling.
41	EPA	EPA Method 26A – Hydrogen Halide and Halogen, Isokinetic	EN 1911-1,2,3 (1998), "Stationary Source Emissions-- Manual Method of Determination of HCl--Part 1: Sampling of Gases Ratified European Text--Part 2: Gaseous Compounds Absorption Ratified European Text-- Part 3:	Part 3 of this standard cannot be considered equivalent to EPA Method 26 or 26A because the sample absorbing solution (water) would be expected to capture both HCl and Cl2 gas, if present, without the ability to distinguish between the two. The EPA Methods 26 and 26A use an acidified absorbing solution to first separate HCl and Cl2 gas so that they can be selectively absorbed, analyzed, and reported separately. In addition, in EN 1911 the absorption efficiency for Cl2 gas would be

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			Adsorption Solutions Analysis and Calculation Ratified European Text"	expected to vary as the pH of the water changed during sampling.
42	EPA	EPA Method 28 (Section 10.1) – Wood Heaters, Certificate and Auditing	ASME Power Test Codes, "Supplement on Instruments and Apparatus, part 5, Measurement of Quantity of Materials, Chapter 1, Weighing Scales"	It does not specify the number of initial calibration weights to be used nor a specific pretest weight procedure.
			ASTM E319-85 (Reapproved 1997), "Standard Practice for the Evaluation of Single-Pan Mechanical Balances"	This standard is not a complete weighing procedure because it does not include a pretest procedure.
43	EPA	EPA Method 29 – Metals Emissions from Stationary Sources	CAN/CSA Z223.26-M1987, "Measurement of Total Mercury in Air Cold Vapour Atomic Absorption Spectrophotometeric Method"	It lacks sufficient quality assurance and quality control requirements necessary for EPA compliance assurance requirements.
			ASTM D4358-94 (1999), "Standard Test Method for Lead and Chromium in Air Particulate Filter Samples of Lead Chromate Type Pigment Dusts by Atomic Absorption Spectroscopy"	These ASTM standards do not require the use of glass fiber filters as in EPA Method 12 and require the use of significantly different digestion procedures that appear to be milder than the EPA Method 12 digestion procedure. For these reasons, these ASTM standards cannot be considered equivalent to EPA Method 12. Also, the subject ASTM standards do not require the use of hydrogen fluoride (HF) as in EPA Method 29 and therefore, they cannot be used for the preparation, digestion, and analysis of Method 29 samples. Additionally, Method 29 requires the use of a glass fiber filter, whereas these three ASTM standards require cellulose filters and other probable nonglass fiber media, which cannot be considered equivalent to EPA Method 29.
			ASTM E1741-95 (1995), "Standard Practice for Preparation of Airborne Particulate Lead Samples Collected During Abatement and Construction Activities	These ASTM standards do not require the use of glass fiber filters as in EPA Method 12 and require the use of significantly different digestion procedures that appear to be milder than the EPA Method 12 digestion procedure. For these reasons, these ASTM standards cannot be considered equivalent to EPA Method 12. Also, the subject ASTM standards do not require

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			for Subsequent Analysis by Atomic Spectrometry"	the use of hydrogen fluoride (HF) as in EPA Method 29 and therefore, they cannot be used for the preparation, digestion, and analysis of Method 29 samples. Additionally, Method 29 requires the use of a glass fiber filter, whereas these three ASTM standards require cellulose filters and other probable nonglass fiber media, which cannot be considered equivalent to EPA Method 29.
			ASTM E1979-98 (1998), "Standard Practice for Ultrasonic Extraction of Paint, Dust, Soil, and Air Samples for Subsequent Determination of Lead"	These ASTM standards do not require the use of glass fiber filters as in EPA Method 12 and require the use of significantly different digestion procedures that appear to be milder than the EPA Method 12 digestion procedure. For these reasons, these ASTM standards cannot be considered equivalent to EPA Method 12. Also, the subject ASTM standards do not require the use of hydrogen fluoride (HF) as in EPA Method 29 and therefore, they cannot be used for the preparation, digestion, and analysis of Method 29 samples. Additionally, Method 29 requires the use of a glass fiber filter, whereas these three ASTM standards require cellulose filters and other probable nonglass fiber media, which cannot be considered equivalent to EPA Method 29.
44	EPA	EPA Method 101 – Mercury Emissions, Chlor-Alkali Plants (Air)	ASTM D6216-98 - Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications.	The EPA is incorporating ASTM D6216 (manufacturers certification) by reference into EPA Performance Specification 1, Sect. 5 & 6 in another rulemaking. ASTM D6216 does not address all the requirements specified in PS-1.
45	EPA	EPA Method 101a – Mercury Emissions – Sewer/Sludge Incinerator	ASTM D6216-98 - Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications.	The EPA is incorporating ASTM D6216 (manufacturers certification) by reference into EPA Performance Specification 1, Sect. 5 & 6 in another rulemaking. ASTM D6216 does not address all the requirements specified in PS-1.
46	EPA	EPA Method 180.1 – Turbidity, Nephelometric	ISO 7027 – Water Quality - Determination of Turbidity	EPA has no data upon which to evaluate whether the separate 90 degrees scattered or transmitted light measurement evaluations according to the ISO 7027 method would produce results that are equivalent to results produced by the other methods.
47 *	EPA	EPA Method 306 – Chromium Emissions, Electroplating and Anodizing	ASTM D4358-94 (1999) - Standard Test Method for Lead and Chromium in Air	This MACT standard (Petroleum Refineries) only cites Method 29. Therefore, the following EPA comment is only applicable for Method 29 not Method 12 and 306: Method 29 requires the

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			Particulate Filter Samples of Lead Chromate Type Pigment Dusts by Atomic Absorption Spectroscopy	use of hydrofluoric acid (HF) in its process of digestion of the sample. ASTM D4358-94 (1999) does not require the use of HF; therefore, it cannot be used in the preparation, digestion, and analysis of Method 29 samples. Additionally, Method 29 requires the use of a glass fiber filter, whereas the subject ASTM standard requires cellulose filters and other probable non-glass fiber media, and this further negates their use as Method 29 equivalent methods. (Same comment as provided for ASTM E1741 and ASTM E1979).
48 *	EPA	EPA Method 306a – Chromium Emissions, Electroplating—Mason Jar	ASTM D4358-94 (1999) - Standard Test Method for Lead and Chromium in Air Particulate Filter Samples of Lead Chromate Type Pigment Dusts by Atomic Absorption Spectroscopy	This MACT standard (Petroleum Refineries) only cites Method 29. Therefore, the following EPA comment is only applicable for Method 29 not Method 12 and 306: Method 29 requires the use of hydrofluoric acid (HF) in its process of digestion of the sample. ASTM D4358-94 (1999) does not require the use of HF; therefore, it cannot be used in the preparation, digestion, and analysis of Method 29 samples. Additionally, Method 29 requires the use of a glass fiber filter, whereas the subject ASTM standard requires cellulose filters and other probable non-glass fiber media, and this further negates their use as Method 29 equivalent methods. (Same comment as provided for ASTM E1741 and ASTM E1979).
49	EPA	EPA Method 320 – Vapor Phase Organic and Inorganic Emissions, FTIR	ASTM D6348-98, "Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform (FTIR) Spectroscopy"	Suggested revisions to ASTM D6348-98 were sent to ASTM by the EPA that, would allow the EPA to accept ASTM D6348-98 as an acceptable alternative. The ASTM Subcommittee D22-03 is currently undertaking a revision of ASTM D6348- 98. Because of this, we are not citing this standard as a acceptable alternative for EPA Method 320 in the final rule today. However, upon successful ASTM balloting and demonstration of technical equivalency with the EPA FTIR methods, the revised ASTM standard could be incorporated by reference for EPA regulatory applicability. In the interim, facilities have the option to request ASTM D6348-98 as an alternative test method under 40 CFR 63.7(f) and 63.8(f) on a case-by-case basis.
50	EPA	EPA Method 515.1 – Chlorinated Acids in Water by GC/ECD	Standard Methods 6640B	Standard Methods 6640B for acid herbicides was tentatively deemed impractical for EPA's needs because its sample preparation and quality control procedures were not similar enough to EPA Method 515.1 to ensure that there would not be underreporting of acid herbicide

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
				contamination. EPA plans to offer to work with the Standard Methods committee to resolve this issue prior to the next publication.
51	EPA	EPA Method 515.4 – Chlorinated Acids in DW by LL Fast CG/ECD	ASTM D5317-98 -- Standard Test Method For Determination of Chlorinated Organic Acid Compounds in Water by Gas Chromatography With an Electron Capture Detector	ASTM D5317-98 specifies acceptance windows for the initial demonstration of proficiency for laboratory fortified blank samples that are as small as 0 percent to as large as 223 percent recovery for picloram, with tighter criteria for other regulated contaminants. Therefore, this method permits unacceptably large control limits, which include 0 percent recovery.
			Standard Method 6640 B for the chlorinated acids Standard Method 6640 B for the chlorinated acids	The use of this voluntary consensus standard would have been impractical due to significant shortcomings in the sample preparation and quality control sections of the method instructions. Section 1b of Method SM 6640 B states that the alkaline wash detailed in section 4b2 is optional. The hydrolysis that occurs during this step is essential to the analysis of the esters of many of the analytes. Therefore, this step is necessary and cannot be optional. In addition, the method specifies that the quality control limits for laboratory-fortified blanks are to be based upon plus or minus three times the standard deviation of the mean recovery of the analytes, as determined in each laboratory. Therefore, this method permits unacceptably large control limits, which may include 0 percent recovery.
52	EPA	EPA Method 531.2–N-Methylcarbamoylozimes/ ates, Aqueous In/HPLC	Standard Method 6610, 20th Edition	Standard Method 6610, 20th Edition has recently been approved for compliance monitoring. Standard Method 6610, 20th Supplemental Edition permits the use of a strong acid, hydrochloric acid (HCL), as a preservative. The preservatives in all of the other approved EPA and Standard Methods procedures for these analytes are weak acids that adjust the pH to a specific value based upon the pKa of the preservative. The use of HCL would require accurate determinations of the pH of the sample in the field and could be subject to considerable error and possible changes in pH upon storage. Although not specifically observed for oxamyl or carbofuran during the development of similar methods, structurally similar pesticides have been shown to degrade over time when kept at pH 3. Therefore, approval of this method is impractical because it specifies the use of a strong acid (HCL) when positive control of the pH is critical.

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			Standard Method 6610, 20th Supplemental Edition	Standard Method 6610, 20th Edition has recently been approved for compliance monitoring. Standard Method 6610, 20th Supplemental Edition permits the use of a strong acid, hydrochloric acid (HCL), as a preservative. The preservatives in all of the other approved EPA and Standard Methods procedures for these analytes are weak acids that adjust the pH to a specific value based upon the pKa of the preservative. The use of HCL would require accurate determinations of the pH of the sample in the field and could be subject to considerable error and possible changes in pH upon storage. Although not specifically observed for oxamyl or carbofuran during the development of similar methods, structurally similar pesticides have been shown to degrade over time when kept at pH 3. Therefore, approval of this method is impractical because it specifies the use of a strong acid (HCL) when positive control of the pH is critical.
53	EPA	EPA Method 1650 – Organic Halides, Absorbable (AOX)	ISO, DIN, SCAN, and Standard Methods (SM 5320) – No Titles Found	EPA decided to use EPA Method 1650. This Method was developed by drawing on various procedures contained in the methods of voluntary consensus standards bodies and other standards developers, such as ISO, DIN, SCAN, and Standard Methods (SM 5320). However, none of these more narrowly focused voluntary consensus standards contained the standardized quality control and quality control compliance criteria that EPA requires for data verification and validation in its water programs. Therefore, EPA found none of these VCS standing alone to meet EPA's needs.
54 *	EPA	EPA Method ALT 004	ISO 10396:1993 - Stationary Source Emissions: Sampling for the Automated Determination of Gas Concentrations	Duplicates Methods 3a, 6c, 7e, 10, ALT 004 and CTM 022. Lacks in detail and quality assurance plus quality control requirements. Similar to ASTM D5835.
			ASTM D5835-95 - Standard Practice for Sampling Stationary Source Emissions for Automated Determination of Gas Concentration.	Similar to Methods 3a, 6c, 7e, 10, ALT 004 and CTM 022. Lacks in detail and quality assurance and quality control requirements. Very similar to ISO 10396.
55 *	EPA	EPA Method CTM 022	ISO 10396:1993 - Stationary Source	Duplicates Methods 3a, 6c, 7e, 10, ALT 004 and CTM 022. Lacks in detail and quality assurance

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			Emissions: Sampling for the Automated Determination of Gas Concentrations	plus quality control requirements. Similar to ASTM D5835.
			ASTM D5835-95 - Standard Practice for Sampling Stationary Source Emissions for Automated Determination of Gas Concentration.	Similar to Methods 3a, 6c, 7e, 10, ALT 004 and CTM 022. Lacks in detail and quality assurance and quality control requirements. Very similar to ISO 10396.
56	EPA	EPA Method GG	ASTM D3031-81 – Method of Test for Total Sulfur in Natural Gas (Hyrogenation), Withdrawn	This method has been deleted from the final rule because it was discontinued by the ASTM in 1990 with no replacement. If the total sulfur content of the fuel being fired in the turbine is less than 0.4 weight percent, we are adding a provision that the following methods may be used to measure the sulfur content of the fuel: ASTM D4084-82 or 94, D5504-01, D6228-98, or the Gas Processors Association Method 2377-86. This provision is consistent with the provision in 40 CFR 60.13(j)(1) allowing alternatives to reference method tests to determine relative accuracy of CEMS for sources with emission rates demonstrated to be less than 50 percent of the applicable standard.
57	EPA	EPA Performance Specification 1	ASTM D6216-98 – Standard Procedure for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications.	The standard does not address all the requirements specified in PS-1.
58	EPA	EPA Performance Specification 2 (nitrogen oxide portion only), PF, Performance Specifications 1-7	ISO 10849:1996, "Determination of the Mass Concentration of Nitrogen Oxides--Performance Characteristics of Automated Measuring Systems"	Test methods options are not specific enough to meet the required regulatory levels specified in Rule # 68 FR 5144-01, 2003 (WL 201268) "Federal Plan Requirements for Small Municipal Waste Combustion Units Constructed On or Before August 30, 1999."
		EPA Performance Specification 2 (sulfur dioxide portion only), PF, Performance Specifications 1-7	ISO 7935:1992, "Stationary Source Emissions--Determination of the Mass Concentration of Sulfur Dioxide--Performance Characteristics of	Test method options in the standard are not specific or rigorous enough to meet the regulatory levels specified in Rule # 68 FR 5144-01, 2003 (WL 201268) "Federal Plan Requirements for Small Municipal Waste Combustion Units Constructed On or Before August 30, 1999."

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
			Automated Measuring Methods"	
59	EPA	EPA Performance Specifications 11 - Particulate Matter Continuous Monitoring System	ISO 10155:1995 - Stationary Source Emissions Automated Monitoring of Mass Concentration of Particles – Performance Characteristics, Test Methods, and Specifications	This international standard is only applicable on a site-specific basis by direct correlation with the manual method ISO 9096 (which does not produce particulate matter measurements like EPA Method 5). This appears to be a particulate matter (PM) CEMS performance specification similar to EPA Performance Specification (PS) 11, but does not contain detailed RATA procedures. In addition, EPA does not have a final performance specification to compare this to.
60	EPA	GLI Method 2	ISO 7027 – Water Quality - Determination of Turbidity	EPA has no data upon which to evaluate whether the separate 90 degrees scattered or transmitted light measurement evaluations according to the ISO 7027 method would produce results that are equivalent to results produced by the other methods.
61	EPA	Standard Method 2130B	ISO 7027 – Water Quality - Determination of Turbidity	EPA has no data upon which to evaluate whether the separate 90 degrees scattered or transmitted light measurement evaluations according to the ISO 7027 method would produce results that are equivalent to results produced by the other methods.
62	EPA	SW846-6010b	ASTM C1111-98 (1998) - Standard Test Method for Determining Elements in Waste Streams by Inductively Coupled Plasma-Atomic Emission Spectrometers	This standard lacks details for instrument operation QA/QC, such as optimizing plasma operating conditions; upper limit of linear dynamic range; spectral interference correction; and calibration procedures, which include initial and continuous calibration verifications. Also lacks internal standard and method of standard addition options for samples with interferences.
			ASTM D6349-99 (1999) - Standard Test Method for Determining Major and Minor Elements in Coal, Coke, and Solid Residues from Combustion of Coal and Coke by Inductively Coupled Plasma-Atomic Emission Spectrometers	This standard lacks details for instrument operation QA/QC, such as optimizing plasma operating conditions, upper limit of linear dynamic range, spectral interference correction, and calibration procedures, that include initial and continuous calibration verifications. Also lacks details for standard preparation, and internal standard and method of standard addition options for samples with interferences.
63	GSA	Federal Specification A-A-1925 – Shield, Expansion (Nail Anchors)	ASTM E488 – Standard Test Methods for Strength of Anchors in Concrete and Masonry Elements	This government-unique standard is prepared & maintained by the Defense Logistics Agency (DLA). Both the GSA & DLA contract for products that reference A-A-1925. In order to maintain product continuity in the federal

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
				marketplace, we must cite the standard as the DLA.
64 *	GSA	Federal Specification KKK-A-1822E – Federal Specification for Ambulances	ASTM F2020 – Standard Practice for Design, Construction, and Procurement of Emergency Medical Services Ambulances	The ASTM "Standard Practice for Design, Construction, and Procurement of Emergency Medical Services (EMSS) Ambulances" (ASTM F2020) is not practical for use, and therefore GSA uses the Federal Specification for Ambulances (KKK-A-1822E). GSA has determined the ASTM document is not practical for use for the following reasons: 1) GSA has determined that ASTM F2020 contains specific practices that are technically and economically impractical to use for the acquisition of commercial based vehicles because the document is financially burdensome and technically ineffective. Specifically at issue is the ASTM Standard Specification for Medical Oxygen Delivery Systems for EMS Ground Vehicles, F1949-99 which is inclusive to ASTM F2020. 2) GSA has determined that ASTM F2020 is impractical because it is defined as a "standard practice" which is ambiguous and an ineffective substitution for specifications or requirements for use in GSA contract documents. ASTM F1949-99, a Standard Specification for Medical Oxygen Delivery Systems for EMS Ground Vehicles is included in ASTM F2020. ASTM F1949-99 is defined as a "standard specification". 3) GSA has determined that ASTM F2020 is impractical because ASTM International does not provide interpretations and written guidance to their publications which is inadequate and less useful. ASTM members may only offer personal opinions. ASTM offers no mechanism to support timely resolution of conflicts between contractor and procurement organizations on technical subject matter. GSA provides interpretations, clarifications and engineering determinations when required. This is one of the most important concerns presented by the Ambulance Manufacturers Division (AMD). 4) The AMD has determined through consensus that it is impractical to replace the Federal Specification for Ambulances, KKK-A-1822E with the ASTM Standard Practice, F2020. GSA initiated a survey to collect public responses from a wide range of constituent users of the Federal Ambulance Specification. The National Association of Emergency Medical Technicians (NAEMT), the International Association of Fire Chiefs (IAFC), the National Association of State

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
				EMS Directors (NASEMSD) and the National Association of EMS Physicians universally accept and support the continued use of the Federal Specification. The AMD and constituent users have determined that it is impractical to replace the Federal Specification for Ambulances, KKK-A-1822E with the ASTM Standard Practice, F2020 because rule promulgation is burdensome and costly. Staff and administration resources would need to be diverted in each state EMS office to implement the change in statutes, public health codes, rules and regulations. 5) GSA has determined that ASTM F2020 is impractical because it is burdensome to GSA procurement efforts. While the current ASTM document recites many of the requirements from the Federal Specification, a future ASTM document would likely have diverging requirements unacceptable to the Government. This was verified by a member of the ASTM F2020 subcommittee at the September 4, 2003 meeting of the Federal Interagency Committee on Emergency Medical Services.
65	GSA	MIL-G-9954 – Glass Beads for Cleaning and Peening	SAE/AMS 2431 – Peening Media, General Requirements	This government-unique standard contains specific size & performance required for Air Force critical applications that are not present in the voluntary standards.
66	NARA	NARA Data Standard	Encoded Archival Description (EAD) Archives, Personal Papers, and Manuscripts (APPM) General International Standard Archival Description (ISAD(G)) International Standard Archival Authority Record for Corporate Bodies, Persons, and Families (ISAAR(CPF)) Machine Readable Cataloguing (MARC)	These standards do not meet the precise needs of our agency. However, we continue to bring our individual data elements guidance closer into line with these voluntary standards.
67 *	CPSC	FR/Vol. 68, No. 75/Friday, April 18, 2003, pp. 19142-19147, "Metal-Cored Candlewicks	Voices of Safety International (VOSI) standard on lead in candle wicks	The U.S. Consumer Product Safety Commission found that "the VOSI standard is technically unsound, and thus would not result in the elimination or adequate reduction of the risk,

	Agency	Government-Unique Standard	Voluntary Consensus Standard	Rationale Provided by Agency
		Containing Lead and Candles With Such Wicks"		and that substantial compliance with it is unlikely." See FR/Vol. 68, No. 75/Friday, April 18, 2003, pp. 19145-19146, paragraph H2, "Voluntary Standards" for further information on this finding.
68	CPSC	CPSC CFR Parts 1213, 1500, and 1513	ASTM F1427-96 Bunk Beds	The CPSC rule goes beyond the provisions of the ASTM voluntary standard to provide increased protection to children from the risk of death and serious injury from entrapment.
69	GPO	FED-STD 209	ISO 14644-1 & ISO 14644-2	Quality Assurance. Second ISO standard not issued until end of FY 2000. Being phased out.
70	GPO	MIL-STD 105	ANSI/ASQC Z1.4	Quality Assurance. Cited in small number of contracts due to editing errors. These are being corrected and phased out.
71	GPO	MIL-STD 1189	ANSI/AIM X5-2 & ANSI X3.182	Quality Assurance. Cited in small number of contracts due to editing errors. These are being corrected and phased out.
72	GPO	MIL-STD 498	IEEE/EIA 12207.0, IEEE/EIA 12207.1, & IEEE/EIA 12207.2	Quality Assurance. Cited in small number of contracts due to editing errors. These are being corrected and phased out.

Appendix D: The "Standards.Gov" Website