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Twenty-Eighth Annual Report on Federal Agency Use of Voluntary Consensus Standards and Conformity Assessment

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Standards Coordination Office

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Abstract

In FY 2024, of the 23 federal agencies that reported, two federal agencies added a combined total of two government unique standards (GUS) in lieu of voluntary consensus standards (VCS.) No other agency added or rescinded any GUS in lieu of VCS, leaving a current total of 83 GUS used in lieu of VCS, still in use. This analysis does not reflect the use of standards by the Department of Defense (DoD) or the National Aeronautics and Space Administration (NASA) as they report their use of GUS on a categorical basis via a different reporting mechanism. Agencies demonstrate the effectiveness of the NTTAA and Circular A-119 by their continuous review of opportunities to rescind GUS in favor of using VCS, and their involvement with the private sector through the VCS process. These activities suggest that federal agencies are cognizant of the benefits of meeting their mission needs by actively seeking to use VCS developed by the private sector.

Keywords

Agency use of standards, government unique standards, GUS, NTTAA, voluntary consensus standards, VCS.

Twenty-Eighth Annual Report on Federal Agency Use of Voluntary Consensus Standards and Conformity Assessment

Annually since 1997, the U.S. Department of Commerce (DOC) provides a report to the Office of Management and Budget (OMB) summarizing federal agency use of government unique standards (GUS) used in lieu of voluntary consensus standards (VCS) during the previous fiscal year (FY) as required by Section 12(d)(3) of Public Law 104-113, the "*National Technology Transfer and Advancement Act of 1995*" (NTTAA). By implementing the NTTAA and OMB Circular A-119 "*Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities*" (Circular A-119), agencies minimize their reliance on GUS by using VCS whenever possible and thus help to achieve the following goals:

- reduce costs and regulatory burdens,
- provide incentives and opportunities that encourage growth of U.S. enterprises,
- realize benefits from public-private collaboration in standards setting.

This FY 2024 summary, prepared by the National Institute of Standards and Technology (NIST), compiles annual reports provided by the 23 agencies listed in Appendix A. For these reports, agencies were asked to document any new use of GUS in lieu of VCS during FY 2024 and provide a rationale for each new use. Agencies additionally were asked to list any rescinded GUS in lieu of VCS during the past fiscal year, and to briefly describe their activities undertaken to carry out provisions described in Circular A-119. The two questions are listed in Appendix B. Individual agency reports may be found at https://www.nist.gov/standardsgov/nttaa-reports.

VCS are defined in OMB Circular A-119 Sections 2d-e as standards developed via a process incorporating openness, balance, due process, an appeals process, and a consensus process. GUS, defined in OMB Circular A-119 Section 2c, are standards developed by and for use by the Federal Government that do not follow the process used in developing VCS.

For FY 2024, two federal agencies reported new GUS used in lieu of VCS:

- The Consumer Product Safety Commission published Government Unique Standard 16 CFR § 1263.4 Requirements for labeling of button cell or coin battery packaging.

- The Federal Trade Commission published 16 C.F.R. § 432.3(e), Standard test conditions.

More detailed information on the rationale for these new GUS is available in each agency's report.

For FY 2024, federal agencies did not rescind any GUS used in lieu of VCS.

Summary

In FY2024, of the 23 federal agencies that reported, two federal agencies added a combined total of two GUS in lieu of VCS. No other agency added or rescinded any GUS in lieu of VCS, leaving a current total of 83 GUS used in lieu of VCS, still in use. This analysis does not reflect the use of standards by the Department of Defense (DoD) or the National Aeronautics and Space Administration (NASA) as they report their use of GUS on a categorical basis via a different reporting mechanism. Agencies demonstrate the effectiveness of the NTTAA and Circular A-119 by their continuous review of opportunities to rescind GUS in favor of using VCS, and their involvement with the private sector through the VCS process. These activities suggest that federal agencies are cognizant of the benefits of meeting their mission needs by actively seeking to use VCS developed by the private sector.

In accordance with its coordination role as defined in the NTTAA and OMB A-119, NIST continues to assist federal agencies and their stakeholders by providing standards and conformity assessment information, program support, and guidance. NIST hosts https://www.standards.gov, which offers ongoing practical guidance and information needed by agencies to implement the NTTAA successfully and report standards activities as required by the NTTAA and OMB Circular A-119. This report fulfills the annual reporting requirements of both the NTTAA and OMB Circular A-119.

Appendix A: FY 2024 Federal Agencies Reporting per OMB Circular A-119

Access Board (ACCESS)

Consumer Product Safety Commission (CPSC)

Department of Agriculture (USDA)

Department of Commerce (DOC)

Department of Defense (DoD)*

Department of Energy (DOE)

Department of Health and Human Services (HHS)

Department of Homeland Security (DHS)

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)

Environmental Protection Agency (EPA)

Federal Communications Commission (FCC)

Federal Trade Commission (FTC)

Federal Energy Regulatory Commission (FERC)

General Services Administration (GSA)

Government Publishing Office (GPO)

National Aeronautics and Space Administration (NASA)*

National Archives and Records Administration (NARA)

Nuclear Regulatory Commission (NRC)

* Agencies reporting on a categorical basis per OMB Circular A-119, Section 11.

Appendix B: NTTAA Annual Reporting Survey

Instructions provided to each agency:

Per the NTTAA and the revised OMB Circular A-119, your agency is requested to report on the following two questions:

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

2. Please list the government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards during FY 2024. Please note that GUS which are still in effect from previous years should continue to be listed, thus the total number in your agency's report will include all GUS currently in use (previous years and new as of this FY):

Process:

Attached is a Word (.docx) file with Question 1 and Question 2. Please complete, finalize, and send to NIST.

1. Question 1 is for reporting on your agency's activities in standards and conformity assessment during FY 2024. As a reference, we have included the greyed-out response from last year and instructions on completing.
2. Question 2 is for reporting on GUS used in lieu VCS and includes previously reported GUS. Please update by adding any new and removing any rescinded GUS.

We will post your agency's NTTAA Agency report on our website in pdf format.

Please do not hesitate to give feedback, ask questions, provide comments, etc. on this process.

U.S. Access Board Fiscal Year 2024 Agency National Technology Transfer and Advance Act (NTTAA) Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

The Access Board is an independent federal agency that advances accessibility through leadership in accessible design and the development of accessibility guidelines and standards. Created in 1973 to ensure access to federally funded facilities, the Access Board is a leading source of information on accessible design.

We are responsible for developing, or assisting in the development of, accessibility standards and guidelines under several federal statutes, including: the Americans with Disabilities Act (buildings and facilities, and transportation vehicles), Architectural Barriers Act (federal buildings and facilities); Communications Act (telecommunications equipment); Rehabilitation Act (information and communication technology used or procured by federal agencies); Patient Protection and Affordable Care Act (medical diagnostic equipment); Food and Drug Administration Safety and Innovation Act (prescription drug labels); and Help America Vote Act (voluntary voting system guidelines).

In FY 2024, as in previous reporting years, the Access Board relied heavily on voluntary consensus standards to fulfill its regulatory mission.

Our existing guidelines and standards continue to incorporate by reference about 25 voluntary consensus standards, ranging from web content accessibility guidelines to specifications that relate to the determination of playground surface accessibility.

The Access Board also has a long history of working with standards development organizations (SDOs) on the development of consensus standards relating to accessible design. In FY 2024, Access Board staff served on numerous SDO committees, technical working groups, and cooperative research panels to ensure that the agency's technical expertise and perspective were brought to bear on the development (or revision) of model codes and standards that affect accessibility in a wide range of settings.

For example, agency staff served on, or provided technical assistance to, the following model code groups, SDOs, and research cooperatives:

- American National Standards Institute
- American Society of Mechanical Engineers, A18 Platform Lift and Stairway Chair Lift Committee.
- American Society of Testing and Materials, Committee on Sports Equipment, Playing Surfaces, and Facilities.
- Federal Communications Commission
- International Code Council, Consensus Committee on Accessible and Usable Buildings and Facilities (ASC A117);
- National Fire Protection Association
- National Committee on Uniform Traffic Control Devices;

- National Cooperative Highway Research Panel (sponsored by the Transportation Research Board (TRB);
- International Organization for Standardization/International Electrotechnical Com
- Rehabilitation Engineering and Assistive Tech. Society of North America (RESNA), Standards Comm. on Cognitive Accessibility;
- RESNA Standards Committee for Assistive Technology for Air Travel; and
- Telecommunications Industry Association
- TRB Standing Committee on Innovative Public Transportation Services and Technologies;
- Transportation Cooperative Research Panel (sponsored by TRB);
- World Wide Web Consortium Web Accessibility Initiative - Accessibility Guidelines Working Group,

Two Access Board members serve as statutory representatives on the Election Assistance Commission (EAC) Board of Advisors and Technical Guidelines Development Committee (TGDC). The TGDC, chaired by the NIST Director, is responsible for drafting and recommending versions of the Voluntary Voting System Guidelines (VVSG). The Board of Advisors reviews the VVSG, best practice recommendations, and follows other EAC activities. In FY 2024, EAC Board of Advisors and the Technical Guidelines Development Committee (TGDC) provided feedback on the EAC's voting system testing and certification program, as well as the development of Election Supporting Technology Evaluation Program (ESTEP) and Field Services. In addition to the annual Board of Advisors and TGDC meetings, Access Board members and staff also attend or participate in some other EAC public-facing activities.

Additional information about how the Access Board works with SDO and others to develop accessibility standards and guidelines is available on the Access Board website.

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2023. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Start by reviewing Table 1: Current Government Unique Standards FY2024.

To add a new GUS, please include:

1. **The name of the GUS;**
2. **The name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate;**
3. **A brief rationale on why the VCS(s) was not chosen.**

Current total GUS = 0

Table 1: Current Government Unique Standards FY2024

U.S. Consumer Product Safety Commission Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

From October 1, 2023 to September 30, 2024, U.S. Consumer Product Safety Commission (CPSC or Commission) staff provided technical support or was otherwise engaged in the development of voluntary safety standards for 88 different products, product areas, or hazards. Voluntary standards activities are handled by various standards developing organizations (SDOs) that are accredited by the American National Standards Institute (ANSI). The majority of the standards where staff was involved are developed by either ASTM International (ASTM) or Underwriters Laboratories Inc. (UL). The standards provide safety provisions addressing potential hazards associated with consumer products found in homes, schools, and recreation areas. Twice a year, the CPSC staff issues a Voluntary Standards Tracking and Access Report (VSTAR). This report reports, among other information, the product, product area, or hazard category associated with voluntary standards work, the name of the CPSC employee leading each activity, the name(s) and designation(s) of the standards associated with the activity, the purpose of staff's involvement, any associated mandatory standard or regulation, staff action during the reporting period, and staff's next expected actions associated with the voluntary standard. The VSTAR is issued bi-annually in the form of: (1) a Mid-Year Report, covering the period from October 1 through March 31, and (2) an Annual Report of the CPSC fiscal year, which covers the period from October 1 to September 30. More about this report and other voluntary standards activity at the CPSC can be found at: https://www.cpsc.gov/Regulations-Laws--Standards/Voluntary-Standards.

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2023. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Start by reviewing Table 1: Current Government Unique Standards FY2023.

To add a new GUS, please include:

1. **The name of the GUS;**
2. **The name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate;**
3. **A brief rationale on why the VCS(s) was not chosen.**

Current total GUS = 0

Table 1: Current Government Unique Standards FY2024

(1) **Government Unique Standard** 16 CFR 1500.17(a)(13), Metal-Cored Candlewicks Containing Lead and Candles With Such Wicks [Incorporated: 2003]

Voluntary Standard Voices of Safety International (VOSI) standard on lead in candle wicks

Rationale 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, and that substantial compliance with it is unlikely. See 68 Fed. Reg. 19145-6, paragraph H2, Voluntary Standards for further information on this finding.

(2) **Government Unique Standard** CPSC 16 CFR Parts 1213, 1500, and 1513 for Bunk Beds [Incorporated: 2000]

Voluntary Standard ASTM F1427-96 Standard Consumer Safety Specification for Bunk Beds

Rationale The CPSC rules go beyond the provisions of the ASTM voluntary standard to provide increased protection to children from the risk of death and serious injury from entrapment.

NEW for 2024

(3) **Government Unique Standard** 16 CFR § 1263.4 Requirements for labeling of button cell or coin battery packaging

Voluntary Standards Assessed -

- ANSI C18.1M Part 2-2019 American National Standard for Portable Primary Cells and Batteries with Aqueous Electrolyte - Safety Standard
- ANSI C18.3M Part 2-2021 American National Standard for Portable Lithium Primary Cells and Batteries - Safety Standard
- UL 1642 Standard for Lithium Batteries
- UL4200A - 2020 Standard for Safety for Products Incorporating Button or Coin Cell Batteries of Lithium Technologies
- UL 62368-1 Audio/video, Information and Communication Technology Equipment -Part 1

- IEC 60086-4 (2019) 5th Edition - International Standard for Safety of Lithium Batteries -Primary Batteries
- IEC 60086-5 2021 Primary batteries – Part 5: Safety of batteries with Aqueous electrolyte
- IEC 62115 International Standard for Electric Toys
- ASTM F2999-19 Standard Consumer Safety Specification for Adult Jewelry
- ASTM F2923-20 Standard Specification for Consumer Product Safety for Children's Jewelry
- ASTM F963-17 Standard Consumer Safety Specification for Toy Safety
- Australian F2022C00445 Mechanical requirements for products that contain button/coin batteries
- Australian F2020L01657 Warning requirements on products that contain button/coin batteries
- Australian F2020L01659 Warning requirements for button/coin batteries and packaging

Rationale For consumer products subject to part 1263, the final rule incorporates by reference UL 4200A, which includes performance and labeling requirements. However, UL 4200A does not contain requirements for labeling of button cell or coin battery packaging. Section 3(a) of Reese's Law requires that packages of button cell or coin batteries comply with the special packaging requirements in 16 CFR 1700.15, unless they meet an exemption from special packaging requirements by meeting ANSI Safety Standard for Portable Lithium Primary Cells and Batteries (ANSI C18.3M). The exemption only applies to the special packaging requirement and not to the labeling requirement. Accordingly, CPSC staff evaluated voluntary and international standards for button cell or coin batteries, including products and package labeling (listed below) to determine which, if any, existing standards met the labeling requirements in Reese's Law. Based on staff's assessment, the resulting final rule is not based on a single voluntary or international standard and is instead a variation on the standards, none of which we incorporated into the final rule.

None of the assessed existing voluntary or international standards, standing alone, met the statutory battery package labeling requirements in Reese's Law, 15 U.S.C. 2056e. The regulation draws from existing voluntary and international standards, but is not primarily based on any one standard, and is specifically tailored to meet the labeling requirements in 15 U.S.C. 2056e.

Department of Agriculture (USDA) Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

The Agricultural Marketing Service (AMS) provides grading services, and price and volume reporting for a range of commodities including cotton, dairy, specialty crops, livestock, poultry, seed, tobacco, and grain. AMS supports these services by maintaining commodity quality standards on its website at https://www.ams.usda.gov/. The grade standards provide a common language of trade between buyers and sellers and are voluntarily used by the supply chain to promote orderly and efficient trade of agricultural products. AMS grading services certify products according to these standards or to contract terms. In addition, AMS purchases a variety of food products for market support, Federal nutrition assistance, and international food aid programs. These purchases provide food for those in need and help stabilize agricultural commodity prices by balancing supply and demand. Fresh and processed food purchased under these programs includes fruits and vegetables, nut products, beef and pork, poultry and egg products, fish, dairy products, grain products, and oilseed products. To support the procurement process, AMS maintains a series of purchase specifications on its website at https://www.ams.usda.gov/commodity-procurement that are used by contractors to produce and deliver food products and by graders and inspectors within the U.S. Department of Agriculture (USDA) to determine product acceptability. If purchase specifications require laboratory analyses, only official standard analytical methods are used.

USDA also offers voluntary, independent food safety audits of specialty crops suppliers throughout the production and supply chain. USDA's Good Agricultural Practices (GAP) and Good Handling Practices (GHP) audits verify that fresh fruits, vegetables, and nut products are produced, packed, handled, and stored in the safest manner possible to minimize risks of microbial food safety hazards. USDA GAP and GHP audits verify adherence to the recommendation in the U.S. Food and Drug Administration's (FDA) Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables and industry-recognized food safety practices. In FY 2024, USDA's Specialty Crops Program (SCP) and its licensed auditors performed more than 4,200 food safety audits (primarily GAP and GHP audits) on more than 100 different commodities in 50 states, Puerto Rico and Canada.

Other USDA audit services focus on Good Manufacturing Practice (GMP), which verify adherence to FDA's GMP regulations: current (CFR Title 21 Part 110) and staggered effective dates from 2016 to 2018 (CFR Title 21 Part 117); Hazard Analysis Critical Control Points (HACCP), based on FDA's Guide to Minimize Microbial Food Safety Hazards of Fresh-cut Fruits and Vegetables and the HACCP principles established by the National Advisory Committee On Microbiological Criteria for Foods; food defense protocols, based on FDA's Food Producers, Processors, and Transporters: Food Security Preventive Measures Guidance; and traceability procedures.

The USDA Specialty Crops Program (SCP) serves as the United States representative on multiple Codex Alimentarius Commission (Codex) committees. Codex standards help ensure fair trade practices in the food trade and the trading of safe food internationally. SCP activities relating to Codex include:

- Committee on Processed Fruits and Vegetables (CCPFV): SCP chairs this committee. In FY 2024, though the CCPFV was adjourned, proposals were made to develop new standards and to review an existing one. The general standard for fruit juices and nectars was amended.
- Committee on Fresh Fruits and Vegetables (CCFFV): In FY 2024, SCP participated in electronic working groups developing new standards for fresh curry leaves and fresh dates.
- Codex Committee on Spices and Culinary Herbs (CCSCH): In FY 2024, SCP successfully led the development of the first group standard for spices derived from dried fruits and berries, allspice, juniper and star anise, which was submitted for formal adoption. New standards for dried turmeric and small cardamom were adopted. The U.S. delegation is leading the development of the standard for vanilla, which was advanced to Step 5 - submission of the proposed draft standard through the Secretariat to the Executive Committee for critical review and to the Commission for adoption as a draft standard.
- Codex International Outreach: SCP continuously undertakes outreach activities to maintain technical relationships on Codex standards and issues with foreign countries. In all three Codex commodity committees, SCP leads the working groups that select the priority commodities to be standardized.

SCP serves as the United States representative on multiple United Nations Economic Commission for Europe (UNECE) committees. UNECE is a voluntary international standards development organization. SCP activities relating to UNECE include:

- UNECE Specialized Section on Standardization of Fresh Fruits and Vegetables (SSSFFV): In FY 2024, SCP participated in the development of new standards for sweet potatoes, updating lists of citrus varieties, and revising the standards for pears, headed cabbage, summer squash/zucchini, garlic, and leafy vegetables.
- UNECE Specialized Section on Standardization of Dry and Dried Produce (SSSDDP): SCP is vice chair and heads the U.S. delegation to the annual meeting. In FY 2024, the delegation led the revision of standards for almond kernels, blanched almond kernels and in-shell almonds, dried tomatoes, in-shell walnuts, and dates. Work on the development of explanatory posters for dried melons, raw in-shell peanuts, roasted in-shell peanuts, raw peanut kernels, and roasted peanut kernels is ongoing.
- UNECE Outreach: SCP conducted international outreach to government and industry officials to build support for U.S. positions related to fresh, dry, and dried produce standards being addressed by the UNECE.

In FY 2024, SCP coordinated conformity assessment activities with private sector technical standards activities and conformity assessment activities, with the goal of eliminating unnecessary duplication and complexity in the development and promulgation of conformity assessment requirements and measures by modernizing the U.S. standards for grades of in-shell pecans to reflect the industries' current processing capabilities. SCP worked closely with industry to ensure that the updates to the standards accurately reflect current industry practices. SCP published the proposed revisions in the Federal Register, received limited comments, and moved forward with the Final Rule to revise the standard.

The USDA National Organic Program (NOP) did not use any Government Unique Standards In lieu of Voluntary Consensus Standards in FY 2024. NOP also did not participate in any Voluntary Consensus Standards Activities during FY 2024.

The program continues to use the following Voluntary Consensus Standards. These are incorporated by reference in the USDA organic regulations at 7 CFR 205.3:

1. ASTM D5988-12 ("ASTM D5988"), "Standard Test Method for Determining Aerobic Biodegradation of Plastic Materials in Soil," approved May 1, 2012.
2. ASTM D6400-12 ("ASTM D6400"), "Standard Specification for Labeling of Plastics Designed to be Aerobically Composted in Municipal or Industrial Facilities," approved May 15, 2012.
3. ASTM D6866-12 ("ASTM D6866"), "Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis," approved April 1, 2012.
4. ASTM D6868-11 ("ASTM D6868"), "Standard Specification for Labeling of End Items that Incorporate Plastics and Polymers as Coatings or Additives with Paper and Other Substrates Designed to be Aerobically Composted in Municipal or Industrial Facilities," approved February 1, 2011.
5. EN 13432:2000: E ("EN 13432"), September 2000, "Requirements for packaging recoverable through composting and biodegradation - Test scheme and evaluation criteria for the final acceptance of packaging."
6. EN 14995:2006: E ("EN 14995"), December 2006, "Plastics - Evaluation of compostability - Test scheme and specifications."
7. ISO 17088:2012(E), ("ISO 17088"), "Specifications for compostable plastics," June 1, 2012.
8. ISO 17556:2012(E) ("ISO 17556"), "Plastics—Determination of the ultimate aerobic biodegradability of plastic materials in soil by measuring the measuring the oxygen demand in a respirometer or the amount of carbon dioxide evolved," August 15, 2012.

USDA's Cotton & Tobacco Program utilizes ASTM environmental and laboratory cotton fiber testing standards to provide the methodology for the cotton classification process. In addition, physical and descriptive cotton classification standards for visual and instrument grading serve as the reference for all cotton classification measurements. The applicable websites are listed below:

https://www.astm.org/
https://www.ams.usda.gov/grades-standards/cotton
https://www.astm.org/get-involved/technical-committees/committee-d13/subcommittee-d13#

USDA's Livestock and Poultry Program's (LP) mission ensures that accurate and precise information is generated and available for the producers of U.S. meat and poultry products with respect to quality grading and marketing standards in support of both domestic and international trade. LP continues to coordinate its conformity assessment activities between the public and private sector with participation in consensus standard development bodies. LP still consistently uses government unique standards for the USDA grading and conformity system but continues to expand these into the voluntary consensus space with involvement of U.S. and international standard development organizations to promote efficiency and competitiveness for American farmers, producers, processors, handlers, wholesalers, warehousing companies, and retailers. In the U.S. there are over 500 meat, poultry and egg plants relying on LP for quality assessment. LP maintains several hundred in-house standards for this purpose and for coordinated product certification. Some of them have been in use for more than seventy-five years. LP also maintains Commercial Item Descriptions for hundreds of products that are procured through federal commodity purchase programs.

In 2024, the U.S. delegation to the UNECE Working Party on Agricultural Quality Standards, Specialized Section on the Standardization of Meat was led by LP staff members. UNECE's Specialized Section on Meat is a voluntary international standards development organization that focuses on developing global standards for egg, meat, and poultry products. The 2024 meeting of the Specialized Section was held in-person in Geneva Switzerland and provided opportunities to strengthen relations. In attendance were delegations from Australia, Germany, Italy, Malta, Namibia, Poland, Qatar, the Russian Federation, and the United States of America as well as representatives from several non-government organizations. These proceedings covered topics of discussion on proposed revisions to the standards for ovine and chicken meat carcasses and cuts, alignment of UNECE cut codes with the Harmonized Commodity Description and Coding System, the development of standards for eating quality, sustainable considerations in the meat sector, capacity building and promotion, and the election of officers. LP agreed to lead a working group that will propose revisions to the chicken meat standards during the 2025 session of the Specialized Section. A LP staff person was reelected as the chairperson of this organization during the meeting session. Additionally, LP holds the leadership position of vice chair of the United Nations Working Party on Agricultural Quality Standards.

LP serves on the ASTM International Committee F10 on Livestock, Meat, and Poultry Evaluation Systems, a committee of about 50 members representing industry associations, packing companies, instrument manufacturers, academia, and government agencies. The standards and activities overseen by this committee guide and influence LP's certified tender and instrument grading programs.

The USDA, Marketing and Regulatory Programs, AMS, Livestock and Poultry Program (USDA, MRP, AMS, LP) is the only USDA Agency involved in managing standard development voting and standard body guidance for the International Organization for Standardization (ISO). USDA, MRP, AMS, LP provides a conduit for representation to all other USDA and federal agencies and American stakeholders through the American National Standards Institute (ANSI) via technical advisory group administration of three ISO technical committees: ISO technical committee (TC) 34 Food Products/subcommittee (SC) 5 Milk and milk products, ISO TC 34/SC 6 Meat, Poultry, Eggs, Fish and their products and ISO TC 34/SC 17 Management systems for food safety. These three technical committees encompass 103 international standards bodies responsible for over 260 international standards many of which are used voluntarily or incorporated by reference in federal code and regulations. USDA, MRP, AMS, LP is responsible for the development of the US positions relative to standard development voting and standard body guidance for each of these committees.

USDA, MRP, AMS, LP also provides voluntary staffing for executive management of ISO TC 34/SC 16 Horizontal methods for molecular biomarker analysis. In this role USDA, MRP, AMS, LP provides oversight and support for all of this ISO committee's functions. The ANSI delegated host of ISO TC 34/SC 16 is the American Oil Chemist's Society (AOCS). AMS refers to standards produced by this committee in guidance for testing methods. As a results of its management of ISO TC 34/SC 16, L&P also represents ISO agricultural biotechnology to the Codex Alimentarius Committee on Methods of Analysis and Sampling Interagency Meeting. Within ISO, USDA, MRP, AMS, LP is represented as experts in ISO TC 34/ SC 9 Microbiology of the food chain, ISO TC 34/SC 17 Management systems for food safety, ISO/TC 212 Clinical laboratory testing and *in vitro* diagnostic test systems, ISO/TC 255 Biogas, ISO TC 215 Health Informatics, ISO/TC 276 Biotechnology, ISO/TC 347 Data Driven Agri Food Systems, ISO/PC 343 Sustainable development goals management and recently as the elected co-convener of a new committee, ISO TC 34/SC 9/AHG 5 to brainstorm a one health approach to rapid biomolecular detection methods for antimicrobial, antibiocide and antiviricide resistance genes in bacteria, viruses and fungi.

The USDA, MRP, AMS, LP participates in standards development for AOAC international and serves as a member of the AOAC international board of directors. The AOAC International was originally chartered in 1884 by the USDA and FDA to provide standard methods of analysis for foods and feed products. USDA, MRP, AMS, LP led the development of new AOAC standards for next generation DNA sequencing, metagenomics and biothreat agent detection. USDA, MRP, AMS, LP also serves on the statistics board of AOAC, guiding appropriate statistical analytical applications for AOAC international method development.

USDA's Dairy Program (DP) administers and chairs the U.S. TAG to ISO for the Technical Committee 34, Subcommittee 5 for Milk and Milk Products (TC34/SC5). ANSI, the U.S. member body to ISO, relies on U.S. TAGs as national mirror committees to support the development of voluntary, consensus-based international standards used in the global marketplace. DP concurrently engages in and facilitates TC34/SC5 U.S. TAG activities to determine consensus positions from members representing all sectors of the U.S. dairy industry in the development, approval, reaffirmation, revision, and withdrawal of international ISO standards. Since the TAG was accredited in November 2019, it has provided the U.S. consensus position for approximately 211 voting events for ISO standards at various stages of development. DP organizes the U.S. delegation for ISO meeting attendance and oversees the nomination of experts to represent the U.S. on ISO technical committees. In November of 2024, members of the TAG representing the U.S. delegation participated in the 11th ISO TC34/SC5 meeting. Moreover, the TAG has nominated 17 U.S. experts to multiple technical working groups developing and/or revising ISO standards for the evaluation of milk and milk products.

Another part of DP's commitment to building and using voluntary consensus standards, is participation in U.S. TAGs associated with TC34/SC5, including the U.S. TAG for TC34 for Food Products and the U.S. TAG for TC34/SC9 for Microbiology. Participation and facilitation of U.S. TAG activities in support of international standards allows DP to have a direct role in the development and use of voluntary consensus standards.

Although the Codex Committee on Milk and Milk Products is adjourned *sine die*, DP was very engaged and active in participating in multiple Codex committees impacting the trade of milk and milk products including the following: Codex Committee on Fats and Oils (CCFO), Codex Committee on Food Import and Export Inspection and Certification Systems (CCFICS), Codex Committee on Food Additives (CCFA) and Codex Committee on Methods of Analysis and Sampling (CCMAS).

Relevant Websites:

- ISO: https://www.iso.org/about-us.html
- ANSI Accredited U.S. TAG Listing: https://www.ansi.org/iso/ansi-activities/us-tags
- ISO TC34/SC5 for Milk and Milk Products: https://www.iso.org/committee/47878.html
- ISO TC34 for Food Products: https://www.iso.org/committee/47858.html
- ISO TC34/SC9 for Microbiology: https://www.iso.org/committee/47920.html

USDA's Fair Trade Practices Program (FTPP), Packers and Stockyards Division (PSD) participated in Voluntary Consensus Standards Activities during FY 2024. PSD enforces regulation 201.71(a) promulgated under the Packers and Stockyards Act. The regulation includes Section 5.59, "Electronic Livestock, Meat, and Poultry Evaluation Systems and/or Devices," of the National Institute of Standards and Technology (NIST) Handbook 44 (2013). The rule became effective and enforceable on June 30, 2014. No amendments to the regulation have been made since this date.

Handbook 44 references consensus standards established by ASTM International Committee F10 on Livestock, Meat, and Poultry Evaluation Systems, a committee made up of members representing industry associations, packing companies, instrument manufacturers, academia, and government agencies.

ASTM Committee F10 on Livestock, Meat and Poultry Evaluation was formed in 2001. The ASTM Committee, with a membership of approximately 50, currently has jurisdiction over five standards, published in the Annual Book of ASTM Standards, Volume 15.12. F10 has five technical subcommittees that maintain jurisdiction over these standards.

REFERENCE DOCUMENTS

1. Electronic Livestock, Meat, and Poultry Evaluation Systems and/or Devices Section 5.59. *Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*. NIST Handbook 44, 2013.
2. Standard Practice for User Requirements for Livestock, Meat, and Poultry Evaluation Devices or Systems. American Society for Testing Materials (ASTM) International Standard F 2341.
3. Standard Specification for Design and Construction of Composition or Quality Constituent Measuring Devices or Systems. ASTM International Standard F 2342.
4. Standard Test Method for Livestock, Meat, and Poultry Evaluation Devices. ASTM International Standard F 2343.

NOTE: Standards can be obtained by contacting www.ASTM.org .

FTPP's Food Disclosure and Labeling Division (FDLD) also participates in review of ISO and Codex Alimentarius Standards. FDLD provides guidance referencing such standards to comply with Mandatory Country of Origin Labeling (COOL) and the National Bioengineered Food Disclosure Standard (NBFDS).

FDLD, as part of the oversight of the NBFDS, in 2020, published guidance on testing and validation of processes for regulated entities to satisfy the recordkeeping requirements of the regulation. Guidance on testing suggests the use of validated methods accepted by ISO, Codex Alimentarius, or AOAC International.

These recommendations include:

1. ISO/TS 16393:2019, "Molecular biomarker analysis — Determination of the performance characteristics of qualitative measurement methods and validation of methods," published February 2019.
2. ISO/IEC 17025:2017, "Testing and Calibration Laboratories," corrected version published in March 2018.
3. ISO/ 24276:2006, "Foodstuffs — Methods of analysis for the detection of genetically modified organisms and derived products — General requirements and definitions," published in February 2006; last reviewed and confirmed in 2020.
4. ISO 21568:2003, "Foodstuffs — Methods of analysis for the detection of genetically modified organisms and derived products," published in February 2003.
5. ISO 21569:2005, "Foodstuffs – Methods of analysis for the detection of genetically modified organisms and derived products – Qualitative nucleic acid based methods," published

AMENDMENT 1 in April 2013; last reviewed and confirmed in 2020.

6. ISO/TS 21569-8:2025, "Horizontal methods for molecular biomarker analysis — Methods of analysis for the detection of genetically modified organisms and derived products; Part 8: DNA extraction from alfalfa seeds and real-time PCR based detection methods for genetically modified alfalfa events J101, J163 and KK179," published in April 2025.
7. ISO 21570:2005, "Foodstuffs — Methods of analysis for the detection of genetically modified organisms and derived products — Quantitative nucleic acid based methods," published AMENDMENT 1 in April 2013; last reviewed and confirmed in 2020.
8. ISO 21571:2005, "Foodstuffs — Methods of analysis for the detection of genetically modified organisms and derived products — Nucleic acid extraction," published in February 2005; last reviewed and confirmed in 2020.
9. ISO 11781:2025 Molecular biomarker analysis — Requirements and guidance for single-laboratory validation of qualitative real-time polymerase chain reaction (PCR) methods.

The guidance provides examples of acceptable methods for regulated entities that wish to demonstrate that their products do not contain bioengineered ingredients. These well-established methods would satisfy recordkeeping requirements under the NBFDS.
The FDLD staff represents the USDA as a member of the U.S. TAG to the ISO Technical Committee ISO/TC276 for Biotechnology. The committee works closely with related committees to identify standardization needs and gaps and collaborate with other organizations to avoid duplications and overlapping standardization activities. FDLD staff participated in the following working groups:

- ISO/TC276/WG6 - Biotechnology — General requirements for nucleic acid- and protein-based bio-devices.
- ISO/TC276/WG3 - Analytical methods, changed to a subcommittee: ISO/TC276/SC1 Analytical methods. The scope of the new SC would be the same as that of WG3, and there would initially be three working groups within the SC: gene delivery, cell characterization, and nucleic acids characterization.
- ISO/TC276 WG4 – Bioprocessing, requirements for sample containers for storing biological materials in biobanks.

Also, the FDLD staff represents the USDA as a member of the ANSI/ISO Technical Committee 34 Food Products/(TC 34) Standardization in the field of human and animal foodstuffs, covering the food chain from primary production to consumption, as well as animal and vegetable propagation materials but not limited to, terminology, sampling, methods of test and analysis, product specifications, food and feed safety and quality management and requirements for packaging, storage, and transportation. The Subcommittee 16 (SC 16) standardization of biomolecular testing methods applies to foods, feeds, seeds, and other propagules of food and feed crops, including methods that analyze nucleic acids [e.g., polymerase chain reaction (PCR), genotypic analysis and sequencing], proteins [e.g., enzyme-linked immunosorbent assay (ELISA)], and other suitable methods—finally, the variety of identification and detection of plant pathogens. FDLD staff participated in the following working groups:

- ISO/TC 34/SC 16/WG 9 "Subsampling of seeds and grains
- ISO/TC 34/SC 16/WG 10 "Rapid nucleic acid amplification methods"
- ISO/TC 34/SC 16/WG14 – Genetically engineered content detection and quantification.
- ISO/TC 34/SC 16/WG15 – Single laboratory validation of qualitative real-time PCR.

FDLD Staff review and provide comments and feedback to Codex Alimentarius circular letters pertinent

to their expertise and regulatory responsibilities. Most frequently comments are provided on initiatives within the Codex Committee on Food Labeling (CCFL) and Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU).

The Federal Grain Inspection Service (FGIS) works in cooperation with National Conference of Weights and Measures (NCWM) by serving as the testing laboratory for grain analyzers seeking National Type Evaluation Program (NTEP) certification. The FGIS laboratory is located at the National Grain Center in Kansas City, Missouri and serves as the sole NTEP laboratory for evaluation of grain analyzer devices. These devices are evaluated for measurements of moisture, protein, oil, and test weight per bushel according to the requirements outlined in NCWM Publication 14. Other device types evaluated under the NTEP program include a range of weighing and measuring instruments that include, but are not limited to, scales, grain analyzers, liquid-measuring devices, dry volume containers, odometers, taximeters, and timing devices. Specifications, tolerances, and requirements for each device can be found in the NIST Handbook 44.

The NTEP is a verification program administered by the NCWM to ensure measurement devices are manufactured in accordance with U.S. standards. Standards, policies, and test procedures are developed by industry and technical experts who meet annually to maintain consensus. Devices maintaining an active NTEP Certificate of Conformance are deemed metrologically equivalent according to these standards and are authorized for establishing cost in commercial trade applications. Authorization is dependent on individual state laws and can vary across U.S. states. Related Websites: https://www.ncwm.com/ntep-about

https://www.ncwm.com/grain-sector

FGIS serves as the United States representative on two Codex Alimentarius Commission (Codex) committees. Codex standards help ensure fair trade practices in the food trade and the trading of safe food internationally. FGIS activities relating to Codex include:

- Committee on Cereals, Pulses, and Legumes (CCCPL): FGIS is an alternate delegate to this committee. The committee had been adjourned sine die since 2020, until it was reactivated in 2024 to consider a group standard for millet grains. FGIS will provide assistance and leadership to this committee as it evaluates these standards in FY 2025.
- Committee on Methods of Analysis and Sampling (CCMAS): In FY 2024, FGIS served as the alternate delegate to this committee. FGIS assisted in the review and endorsement of analytical methods and for cereals, pulses, and legumes.

USDA's Science and Technology Program, Seed Regulatory and Testing Division (SRTD) serves as the United States Designated Member/Authority for the Organization for Economic Cooperation and Development (OECD) Seed Schemes and the International Seed Testing Association (ISTA). These international organizations develop standards and policies that affect the movement of seed in international markets. These organizations are made up of member governments that make decisions based on the best interest of their seed industries. Each year, international government representatives submit proposals that are voted on at annual meetings. As the Designated Member, SRTD is responsible for casting the U.S. vote. Prior to the annual meetings, SRTD collects input from relevant domestic stakeholders and develops the U.S. position for each proposal. The final standard or policy approved becomes the new requirement for international seed shipments.

The OECD Seed Schemes (https://www.ams.usda.gov/rules-regulations/fsa/oecd-schemes) promotes

the use of internationally standardized and certified agricultural seed. OECD certified seed is produced and officially controlled according to agreed-upon standards in participating countries. OECD Seed Schemes labels are recognized worldwide and are required for certified seed imports into many countries. The United States meets OECD certification standards for and participates in the following crop groupings: Grasses and Legumes Crucifers and other Oil or Fiber Species; Cereals; Fodder Beets and Sugar Beets; Maize; and Sorghum seed schemes.

The ISTA (https://www.seedtest.org/en/) produces internationally agreed rules for seed sampling and testing, accredits laboratories, promotes research, provides international seed analysis certificates and training, and disseminates knowledge in seed science and technology. This facilitates seed trading nationally and internationally and contributes to food security. ISTA maintains a one-country one-vote policy which reduces the impact of the countries investing most in international seed trade. As the most valuable seed market in the world, AMS is constantly looking for ways to boost the U.S. voice in the interests of the American seed sector. In 2024, AMS served as Vice President of the organization and will become the organizations President in 2025. This will allow AMS to shape the strategic direction of the organization ensuring proposed rules and policies affecting seed trade do not hamper U.S. exports.

USDA's Science and Technology Program, Plant Variety Protection Office (PVPO) serves as the United States representative on the International Union for the Protection of New Varieties of Plants (UPOV; https://www.upov.int/portal/index.html.en). UPOV is a division of the World Intellectual Property Organization (WIPO) of the United Nations. The mission of UPOV is to provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society. The International Convention for the Protection of New Varieties of Plants (UPOV Convention) provides the basis for member countries to encourage plant breeding by granting breeders of new plant varieties intellectual property rights, known as the breeder's rights or Plant Variety Protection (PVP) in the US. The breeder's rights are granted by the individual member (country) of the UPOV Convention.

The UPOV develops Test Guidelines (TGs) for grow-out trials and characterization of most species of plants. These documents ensure standardized procedures are followed for the protection of new varieties of plants. PVPO has adopted UPOV TGs for 240 crops covering 400 species. This ensures alignment of the US standards for PVP with the other 80 countries that are members of UPOV.

PVPO participated in the UPOV Technical Working Party (TWP) meetings for agricultural, fruit, ornamental, and vegetable crops. In FY 2024, the TGs for more than 45 crops were revised. PVPO held stakeholder meetings prior to the TWP meetings to solicit input and feedback concerning crops of interest. The TGs that were updated in 2024 were for the following: eggplant, garlic, ginger, parsley, asparagus, cucumber, lettuce, corn, pea, ginkgo, leucanthemum, lotus, magnolia, poinsettia, Zantedeschia, aloe, carnation, grain amaranth, bentgrass, bermudagrass, Festulolium, fodder beet, hemp, mung bean, sugar cane, zoysia grass, Argania, goji, guava, hazelnut, Japanese pear, Japanese plum, and passion fruit.

Department of Commerce (DOC) Fiscal Year 2024 Agency Report

1. **Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advancement Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.**

The Department of Commerce's (DOC) mission is to create the conditions for economic growth and opportunity for all communities. Through its 13 bureaus, DOC works to drive the United States (U.S.) economic competitiveness, strengthen domestic industry, and spur the growth of quality jobs in all communities across the country. DOC serves as the voice of business in the Federal Government, and at the same time, touches and serves every American every day. DOC fosters the innovation and invention that underpin the U.S. competitive advantage. Its scientists and engineers research emerging technologies and actively provide their knowledge to the voluntary standards development process. Data collected and analyzed by DOC is used by federal and local governments as well as by businesses. Companies benefit from DOC laboratories in conducting research and development (R&D) and in scientific and technical leadership. DOC advances R&D across several critical and emerging technology areas and uses intellectual property (IP) protections to ensure American innovators profit from their work. Together with other branches of DOC, the five branches listed in this report support the strategic goals of enhancing U.S. leadership, accelerating job creation, strengthening U.S. economic and national security, fulfilling constitutional requirements, and delivering excellent customer service. The following report compiles information about how these organizations used their engagement in voluntary consensus standards and conformity assessment activities during FY2024 to support these critical mission areas in fulfillment of the Office of Management and Budget (OMB) and the National Technology Transfer and Advancement Act (NTTAA) reporting requirements.

The U.S. Census Bureau (Census Bureau)

The Census Bureau applies voluntary consensus standards from organizations such as the International Organization for Standardization (ISO), the American National Standards Institute (ANSI), the Open Geospatial Consortium (OGC), and the Federal Geographic Data Committee (FGDC) to all Census Bureau statistical surveys, economic analysis, geographic programs, and products.

The 2024 Census Bureau geographic products include TIGER/Line shapefiles for the most current administrative, legal, and statistical boundaries and names collected by the Census Bureau. These include boundaries for American Indian Areas, States, Counties, Minor Civil Divisions, Incorporated Places, Urban Areas, Congressional Districts, State Legislative Districts, and other geographic areas. Harvesting the metadata to the GeoPlatform.gov and Data.gov using ISO metadata standards is a requirement of the Geospatial Data Act (GDA) of 2018 for the Census Bureau's National Geospatial Data Asset (NGDA) datasets.

Standards Development and Policies: In 2024, the following activities exemplified the Census Bureau's direct application of standards policies, membership in standards bodies, ISO standards licensing, and continued development of voluntary consensus standards to implement within the GSP and its geospatial data products.

1. The Census Bureau continues to provide leadership to the United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM), helping to promote innovation, leadership, frameworks, and partnerships to enhance geospatial information management globally. The Census Bureau is the appointed Chair of the full UN-GGIM Committee of Experts (along with Belgium and Cote d'Ivoire), Head of the U.S. Delegation to the UN-GGIM, and Co-Chair for the High-level Group on the Integrated Geospatial Information Framework (IGIF). The IGIF guides country-specific action plans for policies, development, endorsement, adoption, implementation, and/or use of standards to facilitate the interoperability of geospatial information. The IGIF published the *UN-IGIF Part 2 Implementation Guide* with specific guidance, options, and actions for each of the nine strategic pathways, including standards. In addition, *A Guide to the Role of Standards in Geospatial Information Management* is available online to increase awareness of the benefits of a standards-based approach to geospatial data management to contribute to innovation, new technologies, and data sources to support the Sustainable Development Goals (SDGs).
2. The Census Bureau co-leads the Commerce Geospatial Working Group (CGWG), which provides monthly updates to the DOC's Data Governance Board on key Commerce Geospatial Strategic Action Plan milestones and accomplishments. These often refer to open international standards, standards initiatives, metadata standards implementation, and standards development to support enhanced interoperability and equitable access to all DOC geospatial data users.
3. The Census Bureau co-leads the Commerce Geospatial Standards Users' Group (CGSUG) which continued to leverage geospatial expertise and innovation in standards in FY24. This group met quarterly to raise awareness of critical geospatial topics standards-related activities. The CGSUG has developed an agency repository to hold supporting metadata and standards research and meeting documentation, complied with voluntary consensus standards requirements, collaborated with the OGC, and participated in discussions on best practices for metadata standards and the FGDC endorsement process. DOC members of the CGSUG also participated in the FGDC Executive Committee's Standards Task Team to establish the FGDC standards endorsement process and were later nominated to the newly formed FGDC Standards Working Group.
4. Census Bureau staff participate in geospatial standards development through the International Committee for Information Technology Standards (INCITS) Technical Committee GIS - Geographic Information Systems (INCITS-GIS) and the U.S. Technical Advisory Group to the ISO Technical Committee 211 Geographic Information/Geomatics (TC 211).
5. The Census Bureau's NGDA datasets represent a portfolio of geospatial datasets derived from the MAF/TIGER System. The Census Bureau's TIGER/Line shapefiles for

these NGDA datasets are accessible to the public and discoverable on Census.gov, GeoPlatform.gov, and Data.gov. Each year, over 33,000 metadata files representing the Census Bureau's NGDA datasets are harvested to these open data portals, adhere to FAIR principles (Findable, Accessible, Interoperable, Reusable), and utilize ISO metadata standards (listed below in item 6).

6. The Census Bureau submitted responses to the FGDC for the upcoming 2025 update to the NGDA Baseline Standards Inventory Survey (NBSI) and identified fourteen (14) critical ISO standards and their amendments applied to the NGDA datasets in the FGDC's Governmental Units and Administrative and Statistical Boundaries Theme portfolio. The Census Bureau maintains annual subscriptions to these and multiple standards from the ANSI. The Census Bureau staff accesses all licensed ISO standards from the Standards Connect portal provided by ANSI. The following ISO standards and amendments were documented in FY24 for the NBSI update and added to the Governmental Units Geospatial Standards page on the Governmental Units Theme community hub site on the GeoPlatform:

- **INCITS 31-2009 (R2019)** Information Technology - Codes for the Identification of Counties and Equivalent Areas of the United States, Puerto Rico, and the Insular Areas
- **INCITS 38-2009 (R2019)** Information Technology - Codes for the Identification of the States and Equivalent Areas within the United States, Puerto Rico, and the Insular Areas
- **INCITS 446-2008 (R2018)** Information Technology - Identifying Attributes for Named Physical and Cultural Geographic Features (Except Roads and Highways) of the United States, Territories, Outlying Areas, and Freely Associated Areas, and the Waters of the Same to the Limit of the Twelve-Mile Statutory Zone
- **INCITS 454-2009 (R2019**) Information Technology - Codes for the Identification of Metropolitan and Micropolitan Statistical Areas and Related Statistical Areas of the United States and Puerto Rico; For the following NGDAIDs only:
- **INCITS 455-2009 (R2019)** Information Technology - Codes for the Identification of Congressional Districts and Equivalent Areas of the United States, Puerto Rico, and the Insular Areas; For the following NGDAIDs only:
- **ISO 19103:2015 (R2022)** Geographic information - Conceptual schema language
- **ISO 19107:2019 (2023)** Geographic information - Spatial schema
- **ISO 19108:2002 (R2013)** Geographic information - Temporal schema
  - **ISO 19108/Cor1:2006 (R2020)** Geographic Information – Technical Corrigendum 1
- **INCITS/ISO 19110:2016 (2018)** Geographic information -- Methodology for feature cataloging
- **INCITS/ISO 19111:2019 (2020)** Geographic Information - Referencing by Coordinates
  - **INCITS/ISO 19111:2019/AM1:2021 (2022)** Geographic information - Referencing by coordinates - Amendment 1

- **ISO 19115-2:2009** Geographic information - Metadata - Part 2: Extensions for imagery and gridded data
  - **INCITS/ISO 19115-2:2019/AM1:2022 (2022)** Geographic information – Metadata – Part 2: Extensions for acquisition and processing - Amendment 1.
- **ISO 19136-1:2020** Geographic information - Geography Markup Language (GML) - Part 1: Fundamentals
- **INCITS/ISO/TS 19139-2:2012 (2017)** Geographic information - Metadata - XML schema implementation - Part 2: Extensions for imagery and gridded data
- **INCITS/ISO 19157:2013 (R2019**) Geographic information - Data quality
  INCITS/ISO 19157:2013/AM 1:2018 (2020) Geographic information — Data quality — Amendment 1: Describing data quality using coverages

7. The following FGDC Standards have been evaluated for the thirty-one (31) Census Bureau NGDA Datasets within the Transportation Theme, Governmental Units, and Administrative and Statistical Boundaries Theme portfolios in accordance with the Geographic Information Framework Data Standard established by the FGDC. The FGDC initially developed these standards through the Geospatial One-Stop e-Government initiative.
   - Geospatial Positioning Accuracy Standards Part 3: National Standard for Spatial Data Accuracy FGDC-STD-007.3-1998, https://www.fgdc.gov/standards/projects/FGDCstandards-projects/accuracy/part3/chapter3.
   - United States Thoroughfare, Landmark, and Postal Address Data Standard, FGDCSTD-016-2011, https://www.fgdc.gov/standards/projects/address-data.

International Trade Administration (ITA)

ITA strengthens the competitiveness of U.S. industry, promotes trade and investment, and ensures fair trade through the support of rigorous enforcement of U.S. trade laws and agreements. Through its participation on U.S. delegations addressing global standards development and trade-related standards issues, ITA works to improve the global business environment and helps U.S. organizations compete at home and abroad.

In FY2024, ITA participated in a variety of international standards activities, including standards development, policy dialogues, and capacity building efforts. ITA experts participated in the International Electrotechnical Commission (IEC) Systems Committee for Smart Manufacturing, International Organization for Standardization (ISO)/ Technical Committee (TC) 199 on Safety and Machinery, TC 313 on Packaging Machinery, and TC 347 on Data-driven agrifood systems through ITA's Market Development Cooperator Program (MDCP).

Continued U.S. leadership in these forums is required to overcome efforts by non-likeminded countries -- which include both China and the European Union (EU) -- to advance their national interests, sometimes resulting in barriers to trade for U.S. companies. For example, the Standardization Administration of China (SAC) proposed two new areas of work in ISO committees which presented potential economic or national security challenges for the U.S. One of the areas related to the development of standards for ports and terminals and the other for express

services. In both instances, stakeholders expressed concern and engaged with ITA to work with the American National Standards Institute (ANSI), the U.S. representative to ISO, to oppose the measures, or to otherwise shape them so as to reduce the potential negative effects on U.S. industry.

ITA regularly notifies relevant U.S. stakeholders about opportunities to participate in new standards development activities that might have trade implications with the aim of preventing future market access issues for U.S. exporters. In FY2024 ITA worked with NIST, the National Telecommunications and Information Administration (NTIA), and the Department of State to produce a monthly newsletter highlighting international standards development activities in critical and emerging areas where U.S. engagement could support U.S. industry.
In FY2024 ITA worked on standards projects in the Asia-Pacific Economic Cooperation (APEC) forum and the Association of Southeast Asian Nations (ASEAN) in areas including digitization of standards, cybersecurity, autonomous and electric vehicles, and conformity assessment. ITA engaged on standards issues with the ASEAN Consultative Committee on Standards and Quality (ACCSQ), including by organizing workshops and discussions on advanced manufacturing and Artificial Intelligence (AI) standards. ITA also participated in work on standards for critical and emerging technologies through the Quad (Australia, India, Japan, and U.S.) in areas including AI and advanced communications.

ITA participated in ongoing bilateral engagement on standards issues with various trading partners including through the U.S.-Brazil Commercial Dialogue, and the U.S.- European Union (EU) Trade and Technology Council (TTC), among others. ITA maintained Standards Attaché postings in Beijing, Brussels, Johannesburg, Mexico City, Riyadh, and Sao Paulo, and coordinates regular communications between the Attaches and interested Department of Commerce components.

ITA staff serve as part of the U.S. delegation headed by the Office of the U.S. Trade Representative (USTR) to the World Trade Organization's (WTO's) Committee on Technical Barriers to Trade (TBT) that addresses specific standards-related trade concerns. ITA supported USTR in pursuing standards and conformity assessment-related trade concerns on the floor of the WTO TBT Committee against a number of countries in FY2024, including but not limited to China, India, and the European Union. During FY2024, ITA participated as part of the U.S. delegations for Trade and Investment Framework Agreements (TIFA) with Saudi Arabia, Argentina, and in collaborative discussions with Kenya on standards as part of the Strategic Trade and Investment Partnership (STIP).

Finally, ITA co-manages the Industry Trade Advisory Committee on Standards and Technical Trade Barriers (ITAC 15) with USTR which provides input to the Secretary of Commerce and the Trade Representative on standards-related policy and trade matters.

National Institute of Standards and Technology (NIST)

NIST's mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and

improve quality of life. NIST champions the United States' industry-led, market-driven, and voluntary approach to international standards development, securing American companies as leaders in the global marketplace, stimulating American economic prosperity and global trade, and catalyzing U.S. leadership in the industries of the future. NIST leverages its unique research and standards expertise to work with the private sector to advance American strength and agility in international standards development, especially within sectors of national importance. NIST's activities in several high-priority areas address practical aspects of critical and emerging technologies and fundamental research. As the nation's premier laboratory, NIST is poised to work with industry at every step to support U.S. manufacturing and technological capacity in critical and emerging technologies (CETs), including artificial intelligence (AI), quantum technology, biotechnology, semiconductors, and next-generation communications.

Standards Coordination Activities

As specified in the NTTAA, in authorizing legislation, and in OMB Circular A-119, NIST, through its Standards Coordination Office (SCO), assists and guides federal agencies in leveraging voluntary consensus standards and private sector conformity assessment mechanisms in their programs, procurement, and regulatory activities. NIST chairs the Interagency Committee on Standards Policy (ICSP) and works closely with federal agencies to reduce unnecessary duplication and complexity in standards and conformity assessment practices. Formally chartered working groups of the ICSP include the following four areas: Advanced Communications Technologies, Artificial Intelligence, Conformity Assessment and Semiconductors and Microelectronics. In FY24 NIST developed and launched an interagency standardization portal for USG staff providing a mechanism to share best practices and track USG participation in standards developing committees. SCO provides consultation and advice to other federal agencies in implementing conformity assessment programs, including providing support to the development of the Build America Buy America program. SCO also hosts www.Standards.gov to serve as a standards and conformity assessment related resource for federal agencies, industry, and the public. In FY24, SCO provided standards and conformity assessment training to 1,045 federal employees, including its annual Standards Boot Camp offering to a cohort of 15 federal employees.

Leadership and Participation in International Standards

The Department of Commerce is committed to working with Interagency partners to champion the private sector-driven standards ecosystem to ensure transition of best practices to international standards. NIST and NTIA continue to participate in collaborations like the Alliance for Telecommunications Industry Solutions (ATIS) NextG Alliance, which facilitates consensus building, promotes U.S. leadership, and expedites the development of 5G and 6G standards. NTIA serves as the U.S. Government coordinator for 3GPP, meeting with industry and Interagency partners to address new and enhanced services, features, and capabilities for 5G and 6G. NIST leads the NextG Channel Model Alliance, a public-private partnership that promotes the development of wireless measurement and methods to expedite the development of next generation wireless communications standards. NIST's measurements and evaluation methods are used to

accelerate the development of secure and robust 5G/6G standard specifications in several 3GPP working groups. NIST's cryptographic standards are leveraged within 3GPP's 5G standards, and the NIST Post-Quantum Cryptography (PQC) standards are expected to form the foundation for secure and resilient 6G.

Both NIST and NTIA are members of the Open Radio Access Network (O-RAN) Alliance where NIST's contributions enhance the quality and utility of product testing specifications and NTIA advances commercialization for 5G and 6G. NIST works to integrate zero trust security principles throughout the Radio Access Network (RAN) standards and develop standards that enable the use of RAN intelligent control for improved resilience. NTIA leads a U.S. government effort for referencing O-RAN Alliance standards within 3GPP, a decision which would mainstream O-RAN and help establish it as the default configuration for 6G RAN.

5G/6G and Network Security

NIST contributes to 5G/6G standards development organizations to improve the security and resilience of 5G/6G mobile networks. NIST wireless measurements, evaluation, and testing methods accelerate the development of secure and robust 5G/6G standard specifications in several 3GPP RAN and CT working groups. NIST's contributions to RAN1 have led to enhancements of the TR38.901 channel models to evaluate new capabilities under consideration for 5G advanced and 6G specifications.

NIST participates in the 3GPP's SA3 working group to modernize the cryptographic protocols used in 5G networks. Through participation in these 5G security-focused standards setting groups, NIST provides contributions and impact specifications relevant to various areas of NIST cybersecurity expertise. Some of these areas include cybersecurity risk management, identity and access management, anomaly detection, and cryptography—including quantum safe cryptography.

NIST is a member of the Open Radio Access Network (O-RAN) Alliance, where NIST has made several contributions in the areas of security, testing, and intelligent control. NIST contributions on security focused on zero trust architecture, continuous monitoring, systems management and orchestration, and the transition to post-quantum cryptography. NIST contributions on testing focused on the definition of a new Security Assurance Program and the incorporation of Implementation Conformance Statements for security requirements. NIST contributions on RAN intelligent control focused on enhancing service models and controls necessary to support interference mitigation use cases.

Artificial Intelligence

NIST made numerous contributions to the International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) Joint Technical Committee 1 Subcommittee (JTC 1 SC) 42 (Artificial Intelligence (AI)) across multiple working groups. NIST participates in the U.S. Technical Advisory Group (TAG) for SC 42 and submitted detailed comments for U.S. TAG consideration on 9 drafts and project proposals on topics such as AI

testing, human oversight, reliability assessment, descriptive frameworks, and terminology. NIST also participated heavily in developing content for early-stage projects on conformity assessment and a system classification framework. NIST has been very active in ISO/IEC JTC 1 SC 27 Information security, cybersecurity, and privacy protection, which has progressed ISO/IEC 27090 *Cybersecurity — Artificial Intelligence — Guidance for addressing security threats and failures in artificial intelligence systems* to Committee Draft stage. ISO/IEC 27090, in its final form, will provide guidance for organizations to address security threats and failures in AI systems.

Automotive Industry Cybersecurity
NIST leads the U.S. Technical Advisory Group (TAG) to ISO/IEC TC 22 SC 32 WG 12 Software Update for Road Vehicles which published the first international standard on updates to vehicles *ISO 24089:2023 – Software update engineering for road vehicles.* NIST staff served as the co-chair for the Cybersecurity Assurance Levels (CAL)/Targeted Attack Feasibility (TAF) project group that is working on follow-up work to the first international standard on automotive cybersecurity under the Joint Working Group for ISO and Society of Automotive Engineers (SAE) International.

Biometrics
NIST serves as Chair of ISO/IEC JTC 1/SC37 Biometrics standardization. NIST staff also participate in various working groups (WG) in SC37 providing leadership, technical input, and editing for terminology, testing, quality, and interoperability across multiple modalities that include fingerprint, face, and iris. Additionally, NIST participates with INCITS/Biometrics (formerly INCITS/M1) which serves as the U.S. TAG for ISO/IEC JTC 1/SC37. NIST participates with Common Criteria Working Group Biometric Security iTC (BIO-iTC) focused on biometric security testing. NIST continues to maintain and update the standard: ANSI/NIST-ITL-2011 Update:2015 Data Format for the Interchange of Fingerprint, Facial & Other Biometric Information. NIST as the Ombudsman for the National Information Exchange Model (NIEMOpen) Biometrics Subcommittee is trusted among NIEMOpen members to ensure NIEMOpen output is conformant to the ANSI/NIST-ITL standard. NIST participates in American Society for Testing and Material (ASTM) International Collaboration Area Capturing Iris Image for Use with Iris Recognition Systems to shepherd OSAC documents through the open consensus process to achieve international standardization.

Biotechnology
NIST has participated in ISO TC276 Biotechnology since its inception in 2013. NIST served as the convenor of WG3 on analytical methods until it became a sub-committee (SC1) under TC276 in January 2024. NIST staff now serve as the Chair and Secretariat of TC276/SC1. NIST has several staff in leadership roles throughout the committee to include convenors, secretaries, and project leaders. ISO TC 276 develops standards and reports addressing biobanks and bioresources, analytical methods, bioprocessing, data processing, and metrology related to biotechnology. NIST also manages and chairs the U.S. TAG to ISO TC 276 on Biotechnology and the U.S. TAG to ISO TC276/SC1 on analytical methods.

Blockchain

NIST actively participates and holds leadership positions in ISO TC 307 on Blockchain and Distributed Ledger Technologies and its U.S. mirror committee. NIST has contributed several projects such as ISO 25126 *Information security controls based on ISO/IEC 27002 for distributed ledger services* and ISO 23042 *Reference architecture for DLT-based decentralized identity systems*. NIST has been instrumental in the launch and progression of a U.S. led project on Physical Assets disposition: ISO 20435 A *Framework for Representing Physical Assets Using Tokens*. NIST is very active in several other projects on identity, security, and interoperability, including in support of a joint effort between ISO TC 307 Blockchain and ISO TC 68 Financial Services.

Cyber Infrastructure

NIST served in key leadership roles in support of cyber infrastructure standardization. NIST served as the INCITS Subcommittee Vice Chair for ISO/IEC JTC 1 SC 38, the WG 3 Ad-Hoc Chair within SC 38, and the SC 38 Advisory Group Stakeholder Engagement Chair. NIST served as Head of Delegation and drafted U.S. positions for the SC 38 plenary meetings. NIST also led the development of federal cloud computing capabilities for the ISO/IEC 5140 *Information technology — Cloud computing — Concepts for multi-cloud and the use of multiple cloud service*, which was published in 2024 NIST engaged in outreach activities that included ensuring a successful cloud computing standards event on World Standards Day 2024.

NIST actively participated within ISO/IEC JTC 1/SC 41 (IoT and Digital Twins) WG 3, and as lead architect, spearheaded the publication of *ISO/IEC 30141 Internet of Things Reference Architecture ed2*. NIST served as Chair and Secretary to the US TAG to SC41. NIST also served as Chair of the Digital Twins Consortium Architecture, Patterns, and Stack Task Group supporting the development of key concepts and technology stack definitions.

NIST participated in SC 7 (Software and Systems) WG 42 (Architecture) and served on Advisory Group 8, also within ISO JTC 1, on Meta Reference Architecture and Reference Architecture for Systems Integration. NIST also participates in the development of ISA/IEC 62443 which covers cybersecurity for industrial systems. NIST engaged on the ISA99 committee which authors the standards and leads the effort focusing on the intersection of industrial internet of things and industrial cloud services.

NIST also participated in the Conformity Assessment Steering Committee on the development of test methods for timing interfaces for the IEEE 1952 Standard for Resilient Positioning, Navigation and Timing (PNT) User Equipment.

Cybersecurity and Privacy Risk Management

NIST contributes to various international standards development efforts related to cybersecurity risk management. The latest revision of ISO/IEC 27002 information security controls was published in February 2022 and contains attributes and concepts that align with the functions of the NIST Cybersecurity Framework. NIST serves as editor for a project (ISO/IEC 27028) developing guidance on using the attributes in ISO/IEC 27002 and will remain active within ISO/IEC JTC 1 SC 27 to help promote alignment between ISO standards and NIST resources, including the transition to the NIST Cybersecurity Framework Version 2.0. NIST also served as

co-editor of recently published ISO/IEC 27070 - *Security techniques — Requirements for establishing virtualized roots of trust*. NIST participated in revisions to ISO/IEC 27017 - *Security techniques — Code of practice for information security controls based on ISO/IEC 27002 for cloud services* and ISO/IEC 27008 - *Security techniques — Guidelines for the assessment of information security controls*. NIST serves as project editor for the revision of ISO/IEC 27018 – *Security Techniques —Code of practice for protection of personally identifiable information (PII) in public clouds acting as PII processors,* which is updating privacy controls for use by cloud service providers.

Cryptography and Post-Quantum Cryptography
NIST has made contributions to the revision of ISO/IEC 18031 *Information technology — Security techniques — Random bit generation* to facilitate alignment with NIST Special Publication (SP) 800-90 *Recommendation for Random Number Generation Using Deterministic Random Bit Generators.* NIST also contributed to ISO/IEC14888-4 *Information security – Digital signatures with appendix – Part 4: Stateful hash-based mechanisms* to facilitate alignment with the stateful hash-based signatures specified in NIST SP 800-208. NIST staff has served as a co-editor on ISO/IEC preliminary work item (PWI) 19541 -- *Inclusion of key encapsulation mechanisms for Post-Quantum Cryptography*.

Cryptographic Module Validation
The Cryptographic Module Validation Program (CMVP) is the validation authority for Federal Information Processing Standard (FIPS) 140-3. FIPS 140-3 "Security Requirements for Cryptographic Modules" and NIST SP 800-140 "FIPS 140-3 Derived Test Requirements (DTR): CMVP Validation Authority Updates to ISO/IEC 24759" align with the following ISO/IEC standards: ISO/IEC 19790 and ISO/IEC 24759, respectively. Two NIST staff members participated in ISO/IEC JTC 1 SC 27 WG 3 activities to develop both standards.

Digital Evidence and Forensic Science
NIST staffs a program office that administers the Organization of Scientific Area Committees (OSAC) for Forensic Science which brings together 800 volunteer participants to facilitate the development of forensic science standards in collaboration with private sector Standards Developing Organizations (SDO). OSAC maintains a registry of standards that it encourages the forensic science community to implement those standards into their operations. At the end of FY24, there were 206 standards on the registry and acknowledgement from 207 forensic science service providers that they have implemented relevant standards from this registry.
NIST served as Liaison to the Scientific Working Group on Digital Evidence (SWGDE) Executive Committee and as Project Lead on Quality Management for SWGDE. NIST also served as Vice Chair for the Organization of Scientific Area Committees Digital Evidence Sub-Committee and participated in the ASTM International E30 Committee on Forensic Sciences. NIST served as a member-at-large on the Forensic Standards Science Board of the Organization of Scientific Area Committees (OSAC) for Forensic Sciences, as Vice Chair for the OSAC Digital Evidence Subcommittee, as the statistician on the OSAC Seized Drug Subcommittee, as the statistician and Secretary on the OSAC Speaker Recognition Subcommittee, as the statistician on the OSAC Toxicology Subcommittee, as the statistician on the OSAC Crime Scene Investigation and

Reconstruction Subcommittee, and as a member of the OSAC Facial and Iris Identification Subcommittee. NIST also served as the Liaison to the OSAC Statistics Task Group and on numerous OSAC Task Groups responsible for drafting individual standards, maintaining terminology, and improving OSAC operations. NIST served as Liaison to the Scientific Working Group on Digital Evidence (SWGDE) Executive Committee, as a member of the Digital/Multimedia SAC, and as Project Lead on Quality Management for SWGDE.

Identity Management and Authentication

NIST participates in several committees and standardization initiatives related to identity management and authentication, including ISO/IEC 24760 series - A framework for identity management, ISO/IEC 23220 - Building blocks for identity management via mobile devices series, ISO/IEC 18013 Part 5 - Mobile driving license (mDL) application and Part 7 - Mobile driving license (mDL) add-on functions and Web Incubator Community Group where web interface is being defined for digital identities. NIST actively participates in the revision of ISO/IEC 29115 *Entity authentication assurance framework* and the effort across several international committees to harmonize and reduce gaps for a variety of Digital Wallet for identity credentials efforts. NIST is also engaged in the World Wide Web Consortium's (W3C) Federated Credential Management Community Group and participates across multiple working groups within the Open ID Foundation and the FIDO Alliance.

Interoperable Health Information

NIST held leadership positions within Health Level Seven (HL7) as Conformance Work Group Co-chair, Healthcare Device Work Group Co-chair, Version 2 Management Board Member, Terminology Services Management Work Group, and HL7 Unified Terminology Governance Subcommittee and Terminology Infrastructure Work Group. A NIST representative held a leadership position as the SDO IEEE-Standards Association Vice-Chair for the ISO/IEEE 11073 Point-of-Care Device Work Group. A NIST representative served as the test lead for Integrating the Healthcare Enterprise (IHE) Devices (DEV) domain and participated in IHE-DEV technical and planning committees and International "Connectathon" events as a lead test monitor. NIST Representatives held testing advisory positions and developed and supported the Department of Health and Human Services (HHS) Centers and Disease Control and Prevention (CDC), American Immunization Registry Associations (AIRA) Measurement for Assessment & Certification Advisory Workgroup (MACAW), Association of Public Health Laboratories (APHL) and the HHS Assistant Secretary for Technology Policy/Office of the National Coordinator (ASTP/ONC).

Internet Protocols

NIST continues to advance protocols for secure Internet routing in the Internet Engineering Task Force (IETF). NIST has provided standards contributions on core protocols as well as being active in operational focused groups in the IETF. NIST also participates in IETF working groups focused on the Domain Name System (DNS) and authentication and authorization protocols used to support zero trust.

Internet of Things (IoT)

NIST is actively engaged within JTC 1 SC 27 WG 4 on IoT Security activities, including significant

contributions to ISO/IEC 27404 - Cybersecurity labelling framework for consumer IoT and ISO/IEC 27402 - IoT security and privacy - Device baseline requirements. Within IETF, NIST co-chairs the Software Updates for Internet of Things (SUIT) working group focused on designing a firmware update solution suitable for constrained IoT devices.

Quantum Technologies
NIST has contributed to the establishment of IEC/ISO/Joint Technical Committee (JTC) 3 Quantum technologies and has also been selected as the administrator of the US Technical Advisory Group (TAG), whose job it is to facilitate U.S. consensus positions for all international developing standards and ballots. The U.S. is among 26 participating countries, that are supplying active experts, and 9 observing countries. The first Plenary meeting was held on 28-30 May 2024 in Seoul, Korea. The result of this meeting was the establishment of 6 Adhoc Groups (AHG) to explore approaches to quantum standards development in quantum terminology and metrics, quantum computing and simulation, quantum secure communication, quantum sensors, quantum enabling technologies, and quantum random number generation, as well as an advisory group on Strategic planning. The United States is convening AHG 2 Quantum terminology and metrics. The 2nd Plenary meeting was held on October 21 –22, 2024 in Edinburg, United Kingdom. At this meeting, formation of Project Team (PT) 63622 Quantum Photonics Vocabulary was approved. NIST is leading PT63622 and working to establish terminology for quantum photonics.

Usability
NIST contributed to standards on the testing of usability-related information. As experts in Joint Working Group 28 of ISO/IEC JTC 1 SC 7 on software and systems engineering, NIST participated in writing the ISO TC 159 SC 4 and ISO 2506x series of standards on Common Industry Formats (CIF) for Usability Reports. NIST also worked on revisions for ISO 25062 – Reporting usability evaluations and ISO 25066 – Evaluation report.

Virtual Reality (Immersive Visualization)
NIST staff participate in working groups of The Khronos Group related to immersive interfaces (OpenXR), advanced rendering (ANARI), and 3D Formats. NIST also participated in two sub-groups within the OpenXR working group: namely, the OpenXR tutorial development committee, and the Monado open-source development committee. NIST staff were elected as "outreach officers" for the 3D Interoperability and 3D Commerce groups of the Khronos Group. NIST is also a member of the W3C Immersive Web committee involved in promoting the integration of XR/VR into web browser interfaces. NIST is actively engaging with the Wikimedia Commons group responsible for Wikipedia to bring glTF as a format to allow 3D objects to be embedded within Wikipedia pages. In addition, NIST recently became a member of the Metaverse Standards Forum (MSF), which is playing a key role in ensuring that the many institutions involved with standards development of the metaverse talk to each other in a productive manner. NIST actively participates in the 3D Asset Interoperability Group there.

Wireless Body Area Networks
NIST is a voting member of IEEE802.15 and actively participates in the Task Group 6ma (TG6ma).

TG6ma is tasked with the revision of the standard IEEE 802.15.6–2012 on Wireless Body Area Networks (BAN). The task group objective is to enhance the dependability of BAN applications in high-density scenarios while coexisting with other wireless systems operating in the unlicensed Ultra-WideBand frequency spectrum. NIST contributed a statistical channel model to the channel modeling document of TG6ma under CM2.1, Scenario S2.1 (Implant (upper body) to Body Surface).

National Oceanic and Atmospheric Administration (NOAA)

NOAA's mission hinges on the effective sharing of its data for use by the public, industry, and academia. That sharing is underpinned by standardization of data acquisition and data management practices. NOAA's requirements and procedures for data management are included in the NOAA Data Management Handbook associated with NOAA Administrative Order 212-15B: Management of NOAA Data and Information. NOAA seeks to establish and use voluntary standards with selected industrial associations, academia, and national organizations of state and local governments (e.g., the American Association of State Climatologists), as well as through participation in professional societies (e.g., American Meteorological Society (AMS)) and Standards Development Organizations (e.g., Open Geospatial Consortium (OGC)) as well as international organizations (e.g., United Nations (numerous committees) and International Hydrographic Organization (IHO))). All NOAA line organizations participate in standards development activities, which are coordinated through NOAA's Data Governance Committee (DGC), which is chaired by the NOAA Chief Data Officer.

Standards used in many NOAA activities are established in conjunction with other Federal agencies either through joint participation in national (e.g., Federal Geographic Data Committee (FGDC)) and international (e.g., United Nations committee of experts on Global Geospatial Information Management (UN-GGIM)) organizations or by means of bilateral and multilateral agreements with other nations.

The following presents highlights examples of the ways that NOAA actively engages in not only the adoption of but also the development of voluntary consensus standards:

- NOAA is an active leader, participant, and contributor to the Federal Geographic Data Committee (FGDC), the lead entity (established by Geospatial Data Act of 2018 (GDA)) for the development, implementation, and review of policies, practices, and standards relating to geospatial data across the Federal government. The National Spatial Data Infrastructure (NSDI), which per Executive Order 12906 (Coordinating Geographic Data Acquisition and Access) is the technology, policies, standards, and human resources necessary to acquire, process, store, distribute, and improve utilization of geospatial data. NOAA leads four NSDI data themes and contributes to many others.
    - The Department of Commerce Geospatial Working Group (CGWG) is co-chaired by NOAA and Census, and has an active seat on the new FGDC Standards Working Group (SWG). The SWG is currently reviewing the NARA Geospatial Format Guidance, NARA Metadata Guidance, ISO 19115, Coastal and Marine Ecological Classification Standard (CMECS), Classification of Wetlands and Deepwater Habitats of the United States, and Wetlands Mapping Standard. They are considering an approach on interoperability standards.
- NOAA leads the Integrated Ocean Observing System (IOOS), a part of the Global Earth

Observing System of Systems (GEOSS), which ascribes to the GEOSS data sharing principles as a core capacity. The U.S. IOOS Program Office implements policies, protocols, and standards to implement IOOS and oversee the daily operations and coordination of the System. For more information on IOOS standards, visit the IOOS Data Standards and Requirements webpage.

- NOAA's National Geodetic Survey (NGS) represents the US on the UN Committee of Experts on Global Geospatial Information Management (UN-GGIM)'s Subcommittee on Geodesy (UN SCoG), which developed the Global Geodetic Reference Frame (GGRF). The GGRF includes infrastructure, education, training, governance and the adoption of internationally accepted standards. NGS participates in the ISO Technical Committee 211 (TC211) related to Geospatial Information, TC20 related to Satellite systems (including GNSS/GPS satellites), and TC172 related to geodetic and surveying equipment. NGS staff worked within TC211 to maintain the US NSRS definitions with the ISO Geodetic Registry and refine ISO Standards 19127 and 19135 as a part of ongoing standards reviews. NGS initiated efforts to update the ISO 19111 standard which provides the fundamental definitions for all geospatial data through the United States and the world. NGS worked with the Open Geospatial Consortium on defining and developing consistent standards from the sea to shore.
- NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) represents the US on the Global Sea Level Observing System Group of Experts (GLOSS GE), a component of the IOC/Global Ocean Observing System (GOOS), whose efforts are focused on establishing high quality, global water level data sets to support a broad research and operational user base. GLOSS's main work is to establish and disseminate best practices and standards for operating water level stations and support international data centers.
- NOAA's Office of Coast Survey (OCS) and the Center for Operational Oceanographic Products and Services (CO-OPS) represent the US in the International Hydrographic Organization (IHO), an international organization that coordinates the activities of national hydrographic offices, promotes uniformity in nautical charts and documents, and issues survey best practices, provides guidelines to maximize the use of hydrographic survey data and develops hydrographic capabilities in Member States. OCS is also active in several regional hydrographic commissions.
- NOAA has a long-standing relationship with the Open Geospatial Consortium[1] (OGC) through its annual membership, and continues championing open standards and innovation at OGC. As a lead, NOAA supports the consortium's OGC API and cloud-native geospatial modernization efforts by championing the standards applicable to Findable, Accessible, Interoperable, and Reusable (FAIR) environmental data (such as OGC API - Environmental Data Retrieval), and benefit from, and contribute to, the OGC Community's collective problem solving via the OGC Innovation Program. NOAA

[1] *Open Geospatial Consortium (OGC):* OGC's free and open geospatial standards define interoperable approaches to data encoding, data access, data processing, data visualization, and metadata and catalogue services. NOAA has embraced its Strategic Member role in OGC by sponsoring several pilots – Climate Resilience Pilot (Phase 1) and Federated Marine SDI (Phase 4) – with continued support of these pilots in 2024.

sponsored two OGC pilot projects: The Climate Resilience Pilot (focused on improving interoperability for climate resilience information systems) and produced two deliverables: (1) the Analysis Ready Data Maturity Report which evaluates the maturity of crucial ARD sources for disaster risk response and climate assessments focusing on NOAA data sources, and (2) a generative AI-based virtual assistant designed to streamline access to climate-related information. The Federated Marine SDI pilot (focused on understanding the power of FAIR data in the context of the marine environment) and delivered a framework of best practices document for 'Bridging Land and Sea.' For more information on OGC's efforts to ensure geospatial information interoperability, visit the OGC Standards webpage.

- NOAA contributes US expertise to help the global community deal with the meteorological, climatological and hydrological threats via its membership in and engagement with the World Meteorological Organization (WMO), an agency of the Nations (UN) that serves as the international standardization organization in the fields of meteorology, hydrology, climatology and related environmental disciplines. The WMO's standards and recommended practices include Technical Regulations, an international framework for standardization and interoperability, which consists of standard and recommended practices and procedures adopted by World Meteorological Congress for universal application by all Members, as well as Guides, which describe practices, procedures and specifications which Members are invited to follow or implement in order to achieve compliance.
- NOAA National Weather Service (NWS) meteorological data and reports comply with WMO Standards. NOAA serves as one of the WMO Information System (WIS) Global Information System Centres (GISC) and provides a portal to search all WMO Region IV data center metadata. Additionally, NOAA operates several WMO-recognized global centers, including the Aviation Weather Center (AWC), the Space Weather Prediction Center (SWPC), the National Hurricane Center (NHC), and the Ocean Prediction Center (OPC). For more information on the NWS role in support of the WMO, visit the NWS' WMO webpage.
- NOAA participates in national standards organizations ANSI and INCITS and the international standards organization ISO TC211 (standardization in the field of digital geographic information).
- NOAA applies standards set by the International Standards Organization (ISO), an independent, non-governmental international organization with a membership of 167 national standards bodies, specifically environmental management standards, to NOAA data. Examples of ISO standards in use in NOAA include:
    - ISO 14721: "Open Archival Information System (OAIS)" which defines the reference model for an open archival information system (OAIS). This standard is the basis for archival activities supporting NOAA environmental data. ISO 26324: "Information and documentation - Digital object identifier system" which specifies the syntax, description and resolution functional components of the digital object identifier system. NOAA assigns unique, resolvable, and persistent identifiers to archival datasets and technical reports. Building upon this standard, NOAA recently developed a report on DOI recommendations for use across NOAA

and is in the process of updating its Public Access to Research Results (PARR) Plan to also address DOIs.
    - ISO 19115: "Geographic information – Metadata" which defines the schema required for describing geographic information and services by means of metadata. NOAA participates in the ISO TC211, a committee that focuses on standardization in the field of digital geographic information, and maintains standards for Geographic information/Geomatics.
    - ISO 19139: "Geographic information — XML schema implementation" which defines XML based encoding rules for conceptual schemas specifying types that describe geographic resources. The encoding rules support the UML profile as used in the UML models commonly used in the standards developed by ISO/TC 211.
- U.S. marine fisheries are scientifically monitored, regionally managed, and legally enforced under a number of requirements, including ten National Standards, and principles that must be followed in any fishery management plan to ensure sustainable and responsible fishery management. As mandated by the Magnuson-Stevens Fishery Conservation and Management Act, NOAA Fisheries has developed guidelines for each National Standard. For more information on the standards, visit the NOAA Fisheries National Standard Guidelines webpage.
- NOAA's National Centers for Environmental Information (NCEI) is the Nation's leading authority for environmental data and manages one of the largest archives of atmospheric, coastal, geophysical, and oceanic research in the world. In this role, NCEI follows and implements the ISO metadata standard to facilitate data search and discovery._Metadata at NOAA can be represented in number of different standards and formats including Directory Interchange Format (DIF), Ecological Metadata Language (EML), Sensor Model Language (SensorML), Climate Science Modeling Language (CSML), and NetCDF Markup Language (NcML). NCEI uses the ISO 14721 Open Archival Information System (OAIS) Reference Model standard as the basis for archival activities supporting NOAA environmental data. NCEI also provides distributed data access via the Open source Project for a Network Data Access Protocol (OPeNDAP) compliant THREDDS and ERDDAP data servers.

National Telecommunications and Information Administration (NTIA)

As the manager of federal spectrum and principal advisor to the President on communications and information policy, the **National Telecommunications and Information Administration (NTIA)** engages broadly in next-generation communications issues and standards development. NTIA contributes to the development and application of national and international telecommunication standards by leading, participating in, making technical contributions to, and collaborating with various voluntary national and international telecommunication standards development organizations (SDOs) such as the 3rd Generation Partnership Project (3GPP), the O-RAN ALLIANCE, International Telecommunication Union (ITU-R, ITU-T), the Institute of Electrical and Electronics Engineers (IEEE) Standards Association, WInnForum, Radio Technical Commission for Aeronautics (RTCA), and Alliance for Telecommunications Industry Solutions (ATIS).
In FY 2024, staff from six separate offices of NTIA held 145 positions in 15 standards bodies,

including 19 Chair/Co-Chair/Vice-Chair positions. This includes positions within the International Telecommunications Union.

- NTIA staff filled key leadership positions in the ITU, including Head of the U.S. Delegation to ITU-T Study Group (SG) 20 (Internet of Things, smart cities and communities); Head of the U.S. Delegation to ITU-R SG1 (Spectrum management), SG3 (Radiowave propagation), and SG7 (Science services); Head of Delegation to SG1 Working Party (WP) 1A; Head of Delegation to SG5 (Terrestrial services) WP 5B and 5C; International Chair of SG5 WP 5A; Deputy Head of Delegations to SG5 WP5A and WP5D, and SG7 WP 7C; International Vice-Chair and U.S. Chair of SG3 WP 3L; U.S. Chair of Working Parties 3J and 3K; and Chair of Correspondence Groups CG-3L-7 (Radio Noise), CG-3J-11 (Reference Standard Atmospheres), CG-3J-26 (Modelling lunar radiowave propagation), CG-3J-1 (Gaseous attenuation in Recommendation ITU-R P.676), and CG-3K-3M-9 (Aeronautical Propagation).
- Within the Inter-American Telecommunications Commission (CITEL), NTIA held the International Chair of WRC WG 5 (Preparation for World Radiocommunication Conferences).
- NTIA's Institute for Telecommunication Sciences (ITS) established and continues to play a significant role in the Video Quality Experts Group (VQEG), which performs technical validation that is a prerequisite to standardization of video quality metrics and subjective video quality test methods in the ITU-T.

International Telecommunications Union (ITU)

NTIA is one of the primary U.S. Government agencies engaged in the ITU, working closely with colleagues at the U.S. Department of State, Federal Communications Commission, Department of Defense, and other interested agencies. (Because the ITU is a treaty-based organization, the Department of State acts as the Government's convener of ITU engagement.)

In FY 2024, NTIA's Office of International Affairs (OIA) followed and/or provided inputs to ITU-T Study Groups 3 (Tariff and accounting principles and international telecommunication/ICT economic and policy issues) and 20 (Internet of Things, smart cities and communities), while ITS participated in Study Group 12 (Performance, QoS and QoE). NTIA's work in ITU-T focuses on industry-led, bottom-up, consensus-based standards and appropriately working with U.S. government colleagues to help ensure the ITU-T avoids duplication of efforts with other standards development organizations such as ISO/IEC, 3GPP and IETF.

OIA also represented NTIA on the U.S. Delegation to the World Telecommunications Standardization Assembly, the ITU's conference on technical standards. (Note that the WTSA-24 itself took place during FY 2025—October 15-24, 2024, in New Delhi, India). In FY2024, OIA focused on the U.S. Delegation's preparatory process for the conference. This work included: representing NTIA and its interests in preparatory meetings of the U.S. Delegation, advising the U.S. Delegation on positions for WTSA Resolutions of interest to NTIA (e.g., Internet, OTTs, and the digital economy, the World Summit on the Information Society, and others), and representing U.S. Delegation positions at external ITU/CITEL meetings as appropriate. More specifically, OIA served as the U.S. spokesperson for several Inter-American Proposals (IAPs) and leveraged our position as U.S. Head of Delegation to ITU-T SG20 to assist the U.S. delegation's positioning on Resolution 2 (Study Group mandates).

NTIA's Office of Spectrum Management (OSM) plays a leading role at the ITU's Radiocommunications Sector with the U.S. Department of State, the Federal Communications

Commission to advance the interests of the U.S. government in spectrum management and the use of the spectrum resource. This includes enabling the harmonized allocation of spectrum and supporting technical rules for commercial and government terrestrial and non-terrestrial uses such as 5G and beyond and defense purposes. This work supports the development of the ITU Radio Regulations at a treaty level.

OSM has served as head of the U.S. Delegation to the following ITU-R study groups and working parties: Study Group (SG) 1 (Spectrum management), SG7 (Science services); SG5 (Terrestrial services) including Working Party (WP) 5B and 5C; and Deputy Head of Delegation to SG5 WP5A and WP5D, and SG7 WP 7C. OSM has also served as Chairman of several ITU SGs and WPs including SG5 WP 5A (Terrestrial; services) WP4C SWG 2 (Additional Mobile Satellite Service Spectrum). In addition, NTIA serves as the U.S. spokesperson for numerous ITU study group and working parties In the ITU-R sector and OSM has also been active in other WPs, such as WP4B (systems, air interfaces, performance and availability objectives for FSS, BSS and MSS, including IP-based applications and satellite news gathering) that focus on standards development.

ITS leads U.S. efforts at the ITU-R Study Group 3 (SG3), the technical group that focuses exclusively on radio wave propagation. At SG3, ITS contributes inputs and ensures the technical accuracy and correctness of international radio wave propagation standards. SG3 Recommendations on radio wave propagation are treaty-level agreements and play a role in international agreements on spectrum allocations and sharing scenarios, such as the on-going discussions of 5G mid-band spectrum and mmWave spectrum.

In FY2024, ITS led seven SG3 U.S. Preparatory Meetings, ultimately leading to approval of 12 U.S. input contributions, seven of which were authored or coauthored by ITS. In FY2024, ITS hosted the May-June 2024 ITU-R Working Party meetings in Denver, CO. A new Correspondence Group for opening discussions on modeling lunar radiowave propagation was formed during these meetings, which is chaired by ITS. ITS also participated in SG6 (Broadcasting services).

Within the Inter-American Telecommunications Commission (CITEL) Permanent Consultative Committee II: Radiocommunications (PCC.II), NTIA OSM held the International Chair of sub-working group 1 (SGT-1) of the World Radiocommunication Conference (WRC) preparation group last cycle. NTIA currently serve as the deputy head of the U.S. delegation, the international chair of the SGT-5 and vice chair of the SGT-1 of the WRC Group, and rapporteurs for several WRC agenda items. The CITEL PCC.II develop regional positions for WRC and develop recommendations and reports on spectrum management throughout the Americas.

3rd Generation Partnership Project (3GPP)

Direct participation by NTIA in the 3rd Generation Partnership Project (3GPP), the leading global consortium developing technical specifications for wireless telecommunications networks, allows NTIA to advance U.S. commercial, economic, and government interests by providing technical input to promote strong unbiased standards that support fair competition in next generation/5G cellular technologies. There is no direct membership to 3GPP; the Partnership Project unites seven regional SDOs, each representing a different part of the globe and individual member delegates come to 3GPP via their organization's membership in one of the regional SDOs; the Alliance for Telecommunications Industry Solution (ATIS) is the North American founding partner. 3GPP is organized into three technical specification groups (TSGs)— the Radio Access Network (RAN), Service & Systems Aspects (SA), and Core Network & Terminals (CT)—each of

which is itself composed of multiple Working Groups (WGs) focused on specific TSG subtopics. NTIA technically holds two Individual Memberships (IMs) in 3GPP: one held by the First Responder Network Authority (FirstNet), and one held jointly by NTIA's Office of Policy Analysis and Development (OPAD), ITS, and OIA.

FirstNet's authorizing legislation explicitly tasks the organization with representing the interests of public safety users before domestic and international standards bodies. FirstNet thus represents first responders in 3GPP across the vast majority of 3GPP's Working Groups. FirstNet's focus in 3GPP is to evolve both LTE and 5G Public Safety communication features and enablers to meet First Responder needs. FirstNet's standards team also leads the work relating to LMR (land mobile radio) and LTE/5G interoperability through 3GPP, TIA, and ATIS organizations. Mission-critical services are a key part of 3GPP's work, as evident in 3GPP Releases 12 through 18.

ITS and OPAD engage in 3GPP TSGs for RAN and SA at a Plenary level and participate in 3GPP Working Groups for Services (SA WG1) and Security and Privacy (SA3); OPAD is engaged in TSG SA and SA WGs 1 and 3; ITS participates in SA WGs 1 and 3, as well as the RAN Plenary. The RAN Plenary defines the functions, requirements, and interfaces of the wireless systems, and covers several areas, including radio performance, physical layers, network interfaces, and operations and maintenance requirements. SA1 WG work focuses on system requirements; SA3 WG work focuses on the security and privacy aspects of currently deployed and future wireless technologies. OSM attends RAN Working Groups 1 and 4. OSM's goals are to: gain a more in-depth understanding of 3GPP standards and models used in compatibility studies; monitor 3GPP proposals that have potential to impact federal operations; identify 3GPP spectrum standards that could be adopted for federal systems; and verify that 3GPP standards are being properly used in domestic and international spectrum sharing studies. In FY2024, ITS continued to brief client federal agencies on 3GPP New Radio and deployment scenarios in response to agency-specific concerns related to spectrum sharing, vehicle-to- everything communication, non-terrestrial networks, unmanned aerial vehicles, and integrated sensing and communication.

ATIS

ATIS is a member-driven organization that develops critical industry standards in information and communications technology (ICT). ATIS' NextG Alliance brings together 80 organizations and over 600 subject matter experts from industry, academia and government to advance North American mobile technology leadership. OPAD tracks activities of the NextG Alliance, and FirstNet participates in relevant Working Groups as a NextG Alliance government member and engages in the Alliance's work related to Land Mobile Radio (LMR). FirstNet is also an active participant in the ATIS 3GPP planning meetings.

Telecommunications Industry Association (TIA)

The Telecommunications Industry Association (TIA) acts as a catalyst for the wireless industry to develop and maintain public safety standards for digital equipment and systems through TIA-102 (also known as Project 25). This initiative is supported by industry, government agencies and public safety communications officials, including the Department of Homeland Security's National Communications System (NCS), the Department of Defense, and NTIA. FirstNet's standards team participates in Project 25 efforts, particularly as related to LMR (land mobile radio) standards interoperability with LTE and 5G mission critical services.

O-RAN ALLIANCE

The O-RAN ALLIANCE was founded in 2018 by several large mobile broadband network operators to develop technical specifications for Open Radio Access Network (Open RAN, or ORAN) architecture. The O-RAN ALLIANCE initially discouraged membership by governmental entities, but after extensive discussion in 2022, governmental agencies are now permitted to join as members. ITS and OPAD actively participated in O-RAN ALLIANCE technical meetings in FY2024. ITS participation spanned across various Work Groups (WG) covering broad research work in Architecture workgroup (WG1), Near Real Time RAN Intelligent Controller (WG3), Cloud and Orchestration (WG6) and Focus Groups (FGs) on Next Generation Research (nGRG), Testing and Integration (TIFG), and Sustainability (SuFG).

Telecom Infra Project (TIP)

The Telecom Infra Project (TIP) is a non-profit organization focused on accelerating the development and deployment of open, standardized, and interoperable networking technologies. TIP plays a pivotal role in the Open RAN initiative by conducting research, development, and collaboration among industry stakeholders. In FY2024, the ITS team led the effort to join this organization on behalf of NTIA and obtained full membership for the agency to participate and collaborate with TIP members worldwide. ITS became a full member as of September 2024. Planned work includes continued engagement with key stakeholders to research and develop test cases for different network elements in Open RAN.

Wireless Innovation Forum (WInnForum)

ITS participates as a member of WInnForum. Following the 2015 FCC allocation of the 3550-3700 MHz spectrum band for the Citizens Broadband Radio Service (CBRS) through a three-tiered access system that includes Environmental Sensing Capability (ESC) sensors and Spectrum Access System (SAS) databases, ITS participated in the development of the underlying standards for this three-tiered access system and, in collaboration with the FCC and industry CRADA partners, developed the certification test requirements to assess compliance with the standards. The final certification test system for ensuring SAS conformance with Part 96 of the FCC's rules, which includes the test harness component developed through WInnForum, was delivered to the FCC in FY2023. On-demand support and training continued in FY2024 as the FCC prepared to authorize commercial laboratories to certify SAS providers in FY2025.

Radio Technical Commission for Aeronautics (RTCA)

RTCA is the standards body for aircraft manufacturers and operators. OSM is a voting member of RTCA and previously co-chaired Special Committee 239 (SC-239) on Low Range Radar Altimeters. This committee continues to develop technical documentation of the future capabilities for radio altimeters towards a new RTCA standard (Minimum Operating Performance Standard – MOPS) for radio altimeters operating in the frequency bands where new commercial 5G systems have recently begun, or shortly plan to begin, operating.

Video Quality Experts Group (VQEG)
Since the creation of VQEG in 1997, ITS has supported VQEG with leadership and electronic working methods. VQEG conducts open meetings, which enables broad international participation from industry, academia, and governments. These open meetings facilitate knowledge sharing and collaborative research on unsolved issues that hinder new video products and services.

VQEG provides a mechanism for a wide variety of video quality experts to contribute to ITU work items. In FY2024, ITS used VQEG as a venue to enable subject matter expert contributions to an ITU led effort to validate no reference (NR) metrics that assess video quality. This independent performance testing evaluates the precision and accuracy of NR metrics, with a goal of identifying at least one NR metric that meets U.S. industry specifications for deployment in products and service workflows (e.g., broadcasting, video streaming, public safety, and object recognition). Efforts in 2024 focused on developing a test plan that is expected to begin in 2025 and finish 2026.

IEEE Standards Association (SA)
The Institute of Electrical and Electronics Engineers (IEEE) is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. The IEEE Standards Association (IEEE SA) is the consensus building body of IEEE, which develops and advances global technologies through standards development processes. OPAD participates in the IEEE Government Engagement Program on Standards (GEPS), giving NTIA official Observer Status on the IEEE Standards Board. ITS participates in the development of individual standards as driven by its research portfolio. In FY2024, ITS staff participated in the IEEE Communications Society/Mobile Communications Networks Standards Committee (Com/MobiNet SC) Working Group for Project P.1944 seeking to develop standard channel models for simulating wireless systems. NITA-ITS holds the P.1944 Secretary position and Chair position for the Subgroup on UAV and V2V Channel Models.

Other International Standards Engagements
OIA continues to monitor Internet Engineering Task Force (IETF) work, particularly on matters involving internet governance, including activities of the IETF's Internet Architecture Board (IAB). OSM-ISPD staff participate in International Civil Aviation Authority (ICAO) meetings which develop international procedures for civil aviation; International Maritime Organization (IMO), a treaty level organization for development of requirements for commercial maritime operations including safety of ships and ports; and North Atlantic Treaty Organization (NATO) spectrum management committees which develop positions and recommendations for World Radio Conferences (WRCs). Finally, OSM-ISPD staff participate in the CITEL PCC II (Radiocommunication and Broadcasting) meetings to develop regional positions for WRC and to develop recommendations and reports on spectrum management throughout the Americas.

Standards-Related Committees and Other Fora
The American National Standards Institute (ANSI) oversees standards and conformity assessment activities in the United States and is the sole U.S. representative to the International

Organization for Standardization (ISO) and to the International Electrotechnical Commission (IEC). ANSI does not issue standards, but promotes the use of U.S. standards internationally, advocates U.S. policy and technical positions in international standards organizations, and encourages the adoption of international standards as national standards where they meet the needs of the community. NTIA participates in the ANSI Government Member Forum (GMF) and generally keeps abreast of ANSI activities and developments.

NTIA currently participates in the Interagency Committee on Standards Policy (ICSP) though the Advanced Communications Technologies Working Group (ACTWG), which aims to facilitate coordination of federal agency advanced communications technologies standards activities, respond to requests for information, and develop recommendations.

The Interagency International Cybersecurity Standards Working Group (IICS WG) was established by the National Security Council's Cyber Interagency Policy Committee to coordinate on major issues in international cybersecurity standardization and enhance federal agency participation. OPAD attends IICS WG's periodic meetings.

ITS participates in the U.S. National Committee (USNC) for the International Union for Radio Science (URSI), which is sponsored by the National Academy of Sciences as the U.S. adhering body of URSI. While URSI is an international scientific union affiliated to the International Council for Science (ICSU) and does not issue standards as such, a primary mission of URSI is to encourage the adoption of standardized methods of measurement and standardization of measuring instruments. ITS holds the Chair-Elect seat at the USNC, Chair of USNC Commission E (Electromagnetic Environment and Interference), Vice-Chair of Commission A (Electromagnetic Metrology), and participates in Commissions C (Radiocommunication Systems and Signal Processing) and F (Wave Propagation and Remote Sensing).

United States Patent and Trademark Office (USPTO)

USPTO contributes to the development of international standards for patent and trademark information and documentation primarily through participation of USPTO scientific and technical experts to the Committee on WIPO Standards (CWS) of the World Intellectual Property Organization (WIPO). The standards developed are used by the USPTO and other international intellectual property organizations around the world to harmonize intellectual property information practices. The standards harmonize practices regarding electronic data processing procedures with respect to filing, examination, and publication of intellectual property data. The standards facilitate the exchange, sharing, dissemination, access and retrieval of intellectual property data and documents. USPTO staff also participate in standardization activities of the International Patent Classification (IPC) Union. The IPC provides a hierarchical system for the classification of patents according to different areas of technology. The worldwide access to patent and trademark data and documents supports U.S. industry and organizations' knowledge of national and international intellectual property. https://www.uspto.gov/patents-application-process/patent-search/understanding-patent-classifications/international.

2. Please note that GUS which are still in effect from previous years should continue to be listed, thus the total number in your agency's report will include all GUS currently in use (previous years and new as of this FY). None.

Department of Defense Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

The primary goal of the Department of Defense (DoD) is to support our nation's warfighter in the most efficient, effective, and cost-conscious manner possible while meeting mission objectives. Standards and standardization are essential elements to ensure cost containment and operational effectiveness are achieved during the development and continued maintenance of DoD systems and subsystems. More information on the Defense Standardization Program can be found at https://www.dsp.dla.mil.

DoD relies on voluntary consensus standards (VCS) to gain access to cutting edge technologies within the global marketplace while reducing total acquisition costs. Currently, DoD has adopted 7,798 VCS approved for use within the Department of Defense. Each of these 7,798 VCS is cataloged with an adoption notice in the ASSIST database (https://assist.dla.mil), which gives visibility of the VCS so that others within DoD may use that standard implementing systems or programs. Each adoption notice provides contact information for the adopting activity should any potential DoD users have questions regarding the technical content or how to get a copy of the document. To promote the use of VCS by DoD, publishing an adoption notice is highly encouraged, but it is not a mandatory prerequisite for their use.

Therefore, the number of adoption notices for VCS is only a partial representation of their use in DoD. Many additional VCS documents are called out in DoD acquisitions and used in defense systems however the VCS is not adopted. 664 VCS are cited as normative references in over 5,800 DoD standardization documents. Similarly, normative references to VCS are found in International Standardization Agreements and are used by DoD in the implementation of U.S. ratified International Standardization Agreements. The extensive use of VCS (adopted and not adopted) allows DoD to gain access to cutting edge technologies and to be interoperable with our allies and partners.

In Fiscal Year 2024, we adopted 31 VCS in several areas, including: Aluminum and Aluminum-Alloy Rolled or Cold Finished Bar, Rod, and Wire; Welding, Soldering, and Brazing; Hydraulic Systems; Systems and Software Engineering; Product Support Analysis; and Screw Threads. DoD also canceled 243 military unique documents in that same timeframe and replaced 11 of those military unique items with VCS.

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

This agency reports voluntary consensus standards usage on a categorical basis.

Department of Energy (DOE) Fiscal Year 2024 Agency Report

1. **Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.**

   In 2024, as in previous reporting years, the Department of Energy (DOE) relied heavily on voluntary consensus standards (VCSs) to fulfill its mission. DOE has a long history of working with the VCS community to develop standards that help the Department achieve its mission. That commitment remained intact in 2024. DOE continues to support federal and contractor participation on appropriate VCS committees and writing bodies and tracks participation. Appropriate VCSs are referenced or invoked in our directives or contracts to meet our specific requirements. At NIST's request, this year's report package includes a list of DOE federal and contractor staff participating on voluntary consensus standards committees (*TSL-4, Participants in Non-Government Standards Activities*).

   The DOE Technical Standards Program has a detailed set of procedures called Technical Standards Program Procedures (TSPPs), which include the requirement to perform a mandatory search for existing VCSs prior to initiating a DOE Standard development, revision, or reaffirmation project. The Department continues to have a robust project justification process, which requires that a potential DOE Standard developer perform searches for existing VCSs and document not only the results of those searches, but also the methods used to perform the searches. In September 2021, the DOE acquired an online subscription to VCS access. This subscription is managed through the DOE Technical Standards Program. Having this subscription enables Department standards developers to conduct more efficient searches for VCS, which could be used in lieu of developing, revising, or reaffirming DOE Technical Standards documents. In 2022, the scope of the subscription service was further expanded in response to an increased demand for VCS access. In 2023, the subscription service was further enhanced by increasing the number of VCSs available to users for which the Department has full text access. The Department recognizes that new VCSs are always being developed and approved. Therefore, the project justification process includes the requirement to perform VCS searches when revising DOE Standards as well as when developing new DOE Standards. Lastly, DOE Standards can also be reaffirmed, meaning that the DOE Standard does not require technical changes to remain appropriate for use. The next revision of the TSPPs is taking place in CY-2025 and will include a VCS search requirement for reaffirmation. This requirement will make it mandatory to perform searches for any newly approved VCSs, which could be used in lieu of reaffirming a DOE Standard.

   DOE does not have a conformity assessment program and therefore does not track conformity assessment activities regarding VCSs.

   DOE Technical Standards Program Internet Link https://www.standards.doe.gov/

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Start by reviewing Table 1: Current Government Unique Standards FY2024.

To add a new GUS, please include:

1. **The name of the GUS;**
2. **The name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate;**
3. **A brief rationale on why the VCS(s) was not chosen.**

Current total GUS = 0

Table 1: Current Government Unique Standards FY2024

*Newly added GUS in 2024 = 0

*Based on Project Justification Statements, VCS search results yielded no appropriate or applicable VCSs, which could be used in lieu developing or revising a DOE Technical Standard to address DOE, mission-specific requirements.

Health and Human Services (HHS) Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

1) Administration for Children and Families (ACF)

The Administration for Children and Families (ACF) actively implements the provisions of OMB Circular A-119 and the National Technology Transfer and Advancement Act (NTTAA) by integrating voluntary consensus standards (VCS) and conformity assessment practices into its IT governance, procurement, and operations.

Key Activities:

- Standards Adoption: ACF applies NIST frameworks (e.g., SP 800-53, SP 800-207) and other voluntary standards across cybersecurity, cloud modernization, and data initiatives, particularly in support of Zero Trust implementation.
- Conformity Assessment: Security assessments, ATO processes, and vendor evaluations are aligned with conformity assessment practices to ensure systems meet federal standards for security and performance.
- Standard Contract Language: All IT acquisitions include mandatory language requiring contractor adherence to applicable standards, including NIST guidance, Zero Trust principles, and federal cybersecurity requirements.
- Coordination and Reporting: ACF coordinates with HHS OCIO and other federal partners to ensure consistent application and reporting of standards-based practices.

Public Access:
Information about standards and conformity assessment efforts is available via the HHS OCIO website:
https://www.hhs.gov/about/agencies/asa/ocio/index.html

2) Assistant Secretary for Technology Policy (ASTP)

Office of the National Coordinator for Health IT

Standards are an integral component of ASTP's mission to support the development of a nationwide health information technology (health IT) infrastructure that allows for electronic use and exchange of information in a scalable manner, promotes the adoption of interoperable health IT in a cost-effective manner, and provides leadership in the development, recognition, and implementation of standards and certification of health IT products. The consistent use of health IT standards is a necessary requirement to achieve interoperability of health information, which is a central key to reducing health care costs.

One way in which ASTP encourages the consistent use of health IT standards is through the ONC Health IT Certification Program which is composed of functional requirements known as "certification criteria." Health IT standards are part of the certification criteria. Developers certify their Health IT Modules by demonstrating conformance to these certification criteria, using test procedures (that may have associated test tools and/or test data) approved by the National Coordinator. Additionally, ASTP provides clarifications to certification criteria through Certification Companion Guides (CCG) designed to assist with health IT product development.

One of the standards used in certification criteria is the United States Core Data for Interoperability (USCDI) which is a standardized set of health data classes and constituent data elements for nationwide, interoperable health information exchange. It establishes a baseline set of data that can be commonly exchanged across care settings for a wide range of uses. In 2020, ASTP published USCDI Version 1 and created an annual process for updating the USCDI based on public input. In 2024, ASTP published USCDI Version 5 after going through the annual process and is now working on developing USCDI Version 6. Additionally, ASTP continues to use the Health Information Technology Advisory Committee (HITAC) to review proposed drafts of the USCDI as one means to get expert feedback before finalizing each version.

The USCDI's impact is not limited to health IT products certified under the ASTP Health IT Certification Program. The ASTP Cures Act Final Rule provisions related to "information blocking" also reference the USCDI as the initial scope of electronic health information (EHI) healthcare providers, health information networks and exchanges, and developers of certified health IT need to consider when it comes to the access, exchange, and use of EHI. Please see the USCDI webpage and the USCDI Fact Sheet for more information.

The Standards Version Advancement Process (SVAP) enables health IT developers to voluntarily incorporate newer versions of specific ASTP-regulated standards and implementation specifications into their products under the ASTP Health IT Certification Program, including future versions of the USCDI. The SVAP advances interoperability by permitting developers of certified health IT to implement newer versions of standards and specifications than currently adopted in regulation. In 2020, ASTP established an annual public comment process for SVAP-eligible standards and implementation specifications. In 2024, ASTP announced the "Approved Standards for 2024," which includes USCDI v4. Please see the SVAP Approved Standards on the ASTP Certification Program SVAP webpage.

ASTP provides some funding and works with the standards development organization named the Regenstrief Institute, in their development of Logical Observations Identifiers, Names and Codes (LOINC), a health IT standard for reporting and ordering laboratory tests, measurements, and other observations.

Another standard development organization that ASTP works closely with and provides funding to is Health Level Seven (HL7) to support the development and ongoing maintenance of Fast Healthcare Interoperability Resources (FHIR) standard and related implementation guides along with their Consolidated Clinical Document Architecture (C-CDA) standard. These standards are referenced in ASTP's certification program and enables nationwide interoperability.

Additionally, ASTP works with Integrating the Healthcare Enterprise (IHE) a non-profit organization that creates guidance, called "profiles", by combining a variety of standards and documents how they work

together to support a specific use case. ASTP's focus with IHE has largely been related to updating IHE profiles to use the HL7 FHIR standard.

Related Links:

https://www.healthit.gov/topic/standards-technology/onc-standards-bulletin

https://www.healthit.gov/isa/united-states-core-data-interoperability-uscdi

https://www.healthit.gov/isa/standards-version-advancement-process

https://www.healthit.gov/topic/standards-version-advancement-process-svap

https://www.healthit.gov/topic/certification-ehrs/certification-health-it

3) Centers for Disease Control and Prevention (CDC)

Office of Public Health Data Surveillance and Technology (OPHDST)

National Syndromic Surveillance Program (NSSP)

- HL7 Version 2.5.1 Implementation Guide: Syndromic Surveillance, Release 1 – US Realm, Standard for Trial Use (July 2019) *Current Document searchable at HL7.org: http://www.hl7.org/; **login or sign up required for download; Access Instructions: go to Standards and then Standards for Trial Use, scroll to or search Syndromic Surveillance guide (close date July 26, 2021).
- PHIN Messaging Guide for Syndromic Surveillance: Emergency Department, Urgent Care, Inpatient and Ambulatory Care Settings, Release 2.0 (April 2015): https://www.cdc.gov/nssp/documents/guides/syndrsurvmessagguide2_messagingguide_phn.pdf
- Erratum to the PHIN Messaging Guide for Syndromic Surveillance: Emergency Department, Urgent Care, Inpatient and Ambulatory Care Settings ADT Messages A01, A03, A04 and A08 Optional ORU^R01 Message Notation for Laboratory Data HL7 Version 2.5.1 (Version 2.3.1 Compatible) Release 2.0 (April 2015): https://www.cdc.gov/nssp/documents/guides/erratum-to-the-cdc-phin-2.0-implementation-guide-august-2015.pdf
- PHIN 2.0 Implementation Guide Meaningful Use Clarifying Document (PDF available on NIST Website): https://hl7v2-ss-r2-testing.nist.gov/ss-r2/api/documentation/doc?name=NIST-SS-Clarifications-and-Validation-Guidelines-V1-6.pdf

Data Policy and Standards Division (DPSD)

CDC's Data Policy and Standards Division (DPSD) in the Office of Public Health Data Surveillance and Technology (OPHDST) is working collaboratively across the Agency, with federal partners, state, tribal, local, and territorial (STLT) partners, and healthcare to improve data sharing and interoperable data exchange. The focus of the work includes:

- Ensuring core data sources are more complete and rapidly exchanged to support the collective ability to detect, monitor, investigate and respond to public health threats
- Ensure access, exchange and use of interoperable data across the healthcare and public health ecosystem

DPSD plays an active role in developing consensus-based definitions for the minimal data necessary (MDN) to support emergency response for six core areas of public health surveillance including: **case data; laboratory-based diagnostic testing data, syndromic surveillance/emergency department data; immunization/vaccine administration data; hospital capacity data; and death data/vital statistics**. These established MDN data sets reduce the burden on STLT health departments at the beginning of an emergency response by establishing standardized data collection across CDC for the exchange of data on confirmed, probable, and suspected cases.

In addition to establishing standardized MDN requirements, OPHDST coordinates comments and feedback from across CDC to the Assistant Secretary for Technology Policy/ Office of the National Coordinator for Health IT (ASTP) on United States Core Data for Interoperability (USCDI) and USCDI+ for public health specific use cases. USCDI is a standardized set of health data classes and constituent data elements for nationwide, interoperable health information exchange. Inclusion of public health use cases in USCDI and USCDI+ make mission-critical data more consistent, compatible, and usable for interoperable public health and healthcare purposes.

Office of Laboratory Systems and Response (OLSR)

Division of Laboratory Systems (DLS)

Electronic Test Orders and Results: DLS leads CDC's Public Health Laboratory Electronic Test Orders and Results (ETOR) Initiative. A key component of this work is implementing standard vocabulary, format, and transport mechanisms to ensure data interoperability between partners. Standards include: Health Level 7 (HL7) Standards, Logical Observation Identifiers Names and Codes (LOINC), Systematized Nomenclature of Medicine – Clinical Terms (SNOMED CT), Unified Code for Units of Measure (UCUM)

Laboratory Response Network Data Exchange: DLS supports the Laboratory Response Network (LRN) by providing comprehensive informatics and data exchange solutions to move data from LRN member laboratories to CDC. Standards include: HL7 Standards, LOINC, SNOMED CT, UCUM

LOINC In Vitro Diagnostic Test Code Mapping: DLS manages the LOINC In Vitro Diagnostic (LIVD) Test Code Mapping files used to identify and facilitate reporting of laboratory test results between laboratories and public health agencies. Standards include: LOINC, SNOMED CT, UCUM

Forum on Adoption of Standards for Laboratory Data Exchange: CDC hosts the Forum on Adoption of Standards for Laboratory Data Exchange and Interoperability to help address a CLIAC recommendation from November 2021. The goal of this forum is to provide a space for organizations to develop new relationships and discuss challenges and successes related to the adoption of laboratory standards. Participants include Federal partners, healthcare-related software vendors, and professional groups.

Blood Culture Contamination Quality Measure: Quality measure to protect patients during the diagnostic process by monitoring adult blood culture contamination (BCC) rates.

Laboratory Quality Standards: The Clinical Laboratory Improvement Amendments of 1988 (CLIA) has several requirements for establishing or verifying clinical test method performance. The Clinical & Laboratory Standards Institute (CLSI) creates voluntary guidelines for sensitivity, accuracy, precision, and linearity of test methods. In addition, CLIA uses a quality systems approach, and CLSI has a suite of relevant quality management system (QMS) documents that can be used to meet CLIA requirements.

Several DLS personnel participate in document development committees that create and update evaluation protocols and QMS documents, and other documents that describe best practices for CLIA laboratories that are used by the CDC and others.

- **Committees/Workgroups**
  - Document Development Committee
    - DDC on Clinical Validation Workgroup
    - DDC on Validation of External Transport Systems Workgroup
    - DDC on Respiratory Specimen Collection Workgroup
    - DDC on Total Analytical Error
    - DDC on Verification of Comparability of Patient Results Within One Health Care System
    - DDC on Laboratory Safety Management
  - U.S. TAG to ISO/TC212 Workgroup
  - Evaluation Protocols (EP) Glossary Workgroup
  - Consensus Council
  - Expert Panel on Point-of-Care Testing (POCT)

Next-Generation Sequencing Quality Initiative: The CDC/Association of Public Health Laboratories NGS QI (Next-Generation Sequencing Quality Initiative) utilizes the CLSI QMS standards to ensure the accuracy, reliability, and consistency of NGS testing processes. These standards are applied and built upon to ensure quality in all stages and steps of laboratory testing for public health and clinical applications. Standards for reporting and interoperability of metadata include those promulgated by the American College of Medical Genetics (ACMG) and Global Alliance for Genomics and Health (GA4GH). These standards help promote transparency, reproducibility, and interoperability in NGS research.

CMS to CDC Data Stream: DLS is utilizing a design standard, representational state transfer (REST) for its application programming interface (API) as an architecture for data transfer from the Centers for Medicare & Medicaid Services to CDC. For analysis of population-level data for public health trending and interventions, DLS/QSSB data analysis utilizes Observational Health Data Sciences and Informatics (OHDSI) and the OMOP Common Data Model.

National Center for HIV, Viral Hepatitis, STD, and TB Prevention (NCHHSTP)

Division of STD Prevention (DSTDP)

Building on previous years' work, DSTDP's Surveillance and Data Science Branch has been exploring a syphilis registry model leveraging Fast Healthcare Interoperability Resources (FHIR) and open-source common data models. This registry would be helpful for case investigations of syphilis and consolidating the information retrieved from EHRs. Syphilis-related patient information was retrieved for diagnoses, laboratory test types and results, treatment, and pregnancy status.

Division of Tuberculosis Elimination (DTBE)

DTBE's Tuberculosis Trials Consortium (TBTC) conducts programmatically relevant clinical trials to improve treatment options and outcomes for tuberculosis disease and latent tuberculosis infection. DTBE serves as the sponsor for these clinical studies, and as such, has the regulatory responsibility to submit trial data to the US Food and Drug Administration conforming to Clinical Data Interchange Standards Consortium (CDISC) standards. Data for all TBTC studies are collected in Clinical Data Acquisition Standards Harmonization (CDASH) format and transformed to the Study Data Tabulation Model (SDTM) for submission to FDA.

In 2022, CDC released new interim guidance for a 4-month treatment regimen to treat drug-susceptible TB disease that is as effective as the standard 6-month regimen for TB treatment. This was the first successful short treatment regimen for drug susceptible TB disease identified in almost 40 years. Shortening treatment for TB disease can benefit patients, families, healthcare providers and health systems. In the same year, CDC published a two-year study demonstrating electronic directly observed therapy (eDOT) was at least as effective as traditional in-person DOT for ensuring high adherence to treatment while enabling patient-centered care for TB disease.

National Center for Chronic Disease Prevention and Health Promotion

National Program of Cancer Registries (NPCR)

CDC's National Program of Cancer Registries (NPCR) provides data that public health officials, clinicians, researchers, and policymakers rely on to measure progress in preventing and treating cancer, the second leading cause of death in the United States. Established by Congress through the Cancer Registries Amendment in 1992, NPCR collects nationwide data on cancer occurrence (including the type, extent, and location of the cancer), the type of initial treatment, and outcomes. Today, through NPCR, CDC provides funding and technical assistance to central cancer registries in 46 states, the District of Columbia, Puerto Rico, the U.S. Pacific Island Jurisdictions, and the U.S. Virgin Islands. These data represent 97% of the U.S. population.

NPCR promotes the development and implementation of consensus data standards (i.e., North American Association of Central Cancer Data Dictionary) with other partners to accelerate timely, actionable insights. Annually reported cancer data from 50 central cancer registries are evaluated for quality, completeness, and timeliness according to the NPCR National Data Quality Standards and the United States Cancer Statistics Publication Standards. These standards can be found here: NPCR Data Standards.

Consensus data standards for collection and exchange of cancer data include:

- HL7 CDA ® Release 2 Implementation Guide: Reporting to Public Health Cancer Registries from Ambulatory Healthcare Providers, Release 1, DSTU Release 1.1 – US Realm
    - Previous versions:
        - Implementation Guide for Ambulatory Healthcare Provider Reporting to Central Cancer Registries (March 2014)
        - Implementation Guide for Ambulatory Healthcare Provider Reporting to Central Cancer Registries (August 2012)
    - SVAP requirement for § 170.205(i)(2); § 170.315(f)(4) - Transmission to cancer registries
- HL7 FHIR Central Cancer Registry Reporting Content Implementation Guide v1.0.0
- HL7 FHIR Cancer Pathology Data Sharing v2.0.0
- Communications and Directory PHIN Communication and Alerting (PCA) Guide Version 1.3 (April 27, 2010) Public Health Alerting EDXL V 1.0; CAP V1.1
- Communications and Directory PHIN Directory Exchange Implementation Guide Version 1.0 (May 16, 2007); DSML 1.0
- NAACCR Standards for Cancer Registries Volume 5: Laboratory Electronic Reporting for Pathology
- NAACCR Data Standards and Data Dictionary v25

CDC Diabetes Prevention Recognition Program (DPRP)
The Centers for Disease Control and Prevention established the CDC Diabetes Prevention Recognition Program as part of the National Diabetes Prevention Program (National DPP). The DPRP is the quality assurance arm of the National DPP. It provides information about the location and performance of type 2 diabetes prevention programs across the US. This includes organizations delivering the National DPP lifestyle change program in-person, online, via distance learning, and through a combination of these delivery modes. The purpose of the DPRP is to recognize organizations that have demonstrated their ability to effectively deliver a proven type 2 diabetes prevention lifestyle change program.

The DPRP assures the quality of recognized organizations and provides standardized reporting on their performance. The original 2012 DPRP Quality Standards were based on successful efficacy and subsequent translation studies. In one such efficacy study, the US Diabetes Prevention Program research trial (DPP), participants in the lifestyle intervention losing 5-7% of their bodyweight experienced a 58% lower incidence of type 2 diabetes than those who did not receive the lifestyle intervention. CDC updates the DPRP Standards every 3 years based on new information available in the scientific literature, insights gained through analysis of DPRP data, lessons learned from best practices in the field, and public comment.

The DPRP has three key objectives:

- Assure program quality, fidelity to scientific evidence, and broad use of an effective type 2 diabetes prevention lifestyle change program throughout the United States.
- Develop and maintain a registry of organizations that are recognized for their ability to deliver the National DPP lifestyle change program to adults with prediabetes or at high risk for type 2 diabetes.
- Provide technical assistance to organizations to assist staff in effective program delivery and in problem-solving to achieve and maintain recognition status.

Program delivery organizations must also track results and send data to CDC every 6 months based on requirements in the DPRP Standards CDC reviews these data and provides feedback to each organization. DPRP evaluation data to date show evaluated participants attended an average of 18 core sessions (organizations are required to offer a minimum 22 core sessions) and 9 core maintenance sessions (organizations are required to offer a minimum 6 core maintenance sessions) in the National DPP lifestyle change program. Participant risk reduction, determined using outcomes associated with weight, physical activity minutes, and HbA1c, was seen in 55.5% of all evaluated participants. This risk reduction included 48% who achieved at least a 5% weight loss; 39.7% who achieved at least a 4% weight loss combined with at least 150 min/week on average, of physical activity; 51.9% who achieved a minimum 4% weight loss combined with at least 17 sessions attended; and 1.6% to date who had at least a 0.2% reduction in HbA1c (of those who submitted HbA1c information*). As of May 7, 2025, there are 1,499 CDC-recognized organizations that have collectively enrolled 626,202 participants nationwide since the program's inception.

*Note: The CDC Diabetes Prevention Recognition Program Standards and Operating Procedures describe in detail the DPRP requirements and explain how an organization may apply for, earn, and maintain CDC recognition to offer the National DPP lifestyle change program.

Division for Heart Disease and Stroke Prevention (DHDSP)
As much as possible, DHDSP works to follow existing standards in public health activities and surveillance. A current project leverages existing CMS eClinical Quality Measures to develop use cases

for public health surveillance of hypertension control (CMS165) and diabetes control (CMS122) from EHR data, using electronic case reporting technology aligned with the FHIR reference architecture known as Making EHR Data More Available for Research and Public Health (MedMorph). MedMorph refers to a common framework (including FHIR resources, FHIR APIs, FHIR operations, and security mechanisms) that can be used in many public health use cases.

4) Centers for Medicare & Medicaid Services (CMS)

The Centers for Medicare & Medicaid Services (CMS) works voluntarily with partners to develop, evaluate, and apply national and consensus-based standards. Below is a summary of significant standards used or adopted by CMS to increase the electronic exchange of health information for administrative, financial, quality reporting, and value-based purchasing programs. Organizations using these standards include HIPAA-covered entities (payers, healthcare clearinghouses, certain covered providers), payers regulated by CMS, Medicare providers covered under the Promoting Interoperability and Merit-Based Incentive programs, and entities engaged in Alternative Payment Models, among others.

Centers, Offices, and Groups within CMS engaged with standards development organizations include the Center for Clinical Standards and Quality (CCSQ), the Center for Medicare and Medicaid Innovation (CMMI), the Center for Consumer Information and Insurance Oversight (CCIIO), the Center for Medicare (CM), the Office of Healthcare Experience and Interoperability (OHEI) which includes the Health Informatics and Interoperability Group and National Standards Group, the Office of Enterprise Data and Analytics (OEDA), and the Office of Information Technology (OIT), which includes the claims payment group.

The National Standards Group (NSG) within the Office of Healthcare Experience & Interoperability at CMS is responsible for adopting and enforcing the use of national standards, code sets, identifiers, and operating rules under the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Administrative Simplification provisions to increase the electronic exchange of health information between covered entities. HIPAA-covered entities include health plans, health care providers, and health care clearinghouses, as defined in HIPAA. Representatives from NSG participate with several national standards development organizations as they develop and/or update the standards and operating rules in preparation for the next version to be considered for adoption. NSG is committed to enforcing the adoption of electronic standards by all covered entities, including those organizations in the private and public sectors, as electronic transaction standards will increase healthcare efficiency.

The Center for Medicare uses the adopted HIPAA standard for its eligibility system and transactions. The Center for Consumer Information and Insurance Oversight uses a modified version of the enrollment transaction for the employers participating in its program. It is not the HIPAA standard but a modified version that meets the needs of CCIIO. The staff in CCIIO are active participants in the X12 enrollment workgroup to develop a version of the transaction that meets federal requirements. The Center for Medicare also collaborates with ASTP/ONC to adopt a standard for pharmacy prior authorization under the Part D program, specifically the NCPDP SCRIPT standard, and coordinates with NCPDP on its development, use, updates, and education for payers and PBMs.

The standards development organizations in which CMS employees are engaged and which develop and maintain many of the HIPAA standards, including those for enrollment, eligibility, claims, claim status,

electronic funds transfer, remittance advice, prior authorization, and attachments, are listed below. CMS staff, including those from OHEI, participate in workgroups of the standards-setting organizations:

- Health Level 7 (HL7): (www.HL7.org) – FHIR standards and Implementation Guides
- National Council for Prescription Drug Programs (NCPDP): (www.ncpdp.org) – Pharmacy standards
- Accredited Standards Organization, Insurance (X12N): (www.x12.org) – EDI administrative standards

Organizations responsible for code sets:

- American Dental Association: (www.ada.org) – The ADA manages the dental code set adopted under HIPAA.
- American Medical Association (www.ama-assn.org) chairs the National Uniform Claim Committee (NUCC), which is responsible for designing and maintaining the standardized health insurance claim form. The AMA also manages the CPT code set for billing, which has been adopted under HIPAA.
- National Uniform Billing Committee is chaired by the American Hospital Association. The NUBC maintains the UB-04 data set for institutional healthcare providers. It is the standard billing form and data set for institutional providers and data sets.

Organizations responsible for Operating Rules:

- Council for Affordable Quality Healthcare (CAQH) Committee for Operating Rules for Information Exchange (CORE) CAQHCORE: (www.caqh.org)
- NACHA (the Electronic Payments Association): (https://www.nacha.org/)

The CMS Quality Measurement and Value-Based Incentives Group (QMVIG) in the Center for Clinical Standards and Quality (CCSQ) selects performance measures within its various quality initiatives, including healthcare provider public reporting and value-based purchasing programs.

CMS prefers selecting performance measures (https://www.cms.gov/medicare/quality-initiatives-patient-assessment-instruments/qualitymeasures) that have been reviewed through a consensus process and can be considered consensus-based standards. Battelle Memorial Institute (Battelle), a not-for-profit, nonpartisan organization offering free membership to participate in consensus-based entity (CBE) activities, meets the NTTAA definition of a consensus-based organization. CMS currently contracts Battelle to execute a public and transparent consensus development process to endorse and maintain performance measures.

Battelle's Endorsement & Maintenance (E&M) process (https://p4qm.org/EM) includes an open call for candidate consensus standards (i.e., performance measures), multi-stakeholder review of scientific and statistical evidence against the established endorsement criteria, discussion and evaluation of measures by multi-stakeholder experts including patients and caregivers; and opportunities for stakeholder feedback and public comments throughout the process. The E&M process also allows stakeholders and the public to appeal a decision on measures after they receive consensus-based endorsement. These processes are consistent with the NTTAA and OMB Circular A-119.

- CMS Quality Measures: https://mmshub.cms.gov/

- Partnership for Quality Measurement: https://p4qm.org

The Health Informatics and Interoperability Group at CMS has adopted the HL7 Fast Healthcare Interoperability Resources standards and Implementation Guides for APIs under the Interoperability and Patient Access and Interoperability and Prior Authorization final rules in 2020 and 2024, respectively, to enable patients, providers, and payers a more efficient method to exchange real-time information. The use of these standards aligns with the final rules of the ASTP/ONC. A list of the standards and implementation guides is available from the web link below and are updated in accordance with the ONC Standards Version Advancement process to enable impacted payers to use a more up-to-date version when the National Coordinator approves those. We do not list all the standards and IGs here, but we point to the weblink, where all are available for each required API.

- https://www.cms.gov/priorities/key-initiatives/burden-reduction/interoperability/implementation-guides-and-standards

5) Food and Drug Administration (FDA)

FDA is responsible for protecting public health by helping to bring safe and effective medical products and foods to the U.S. public; and advancing public health by ensuring the public has the most accurate, science-based information they need to use medicines and foods to improve and maintain their health. Standards help to ensure data and process consistency and enable use of advanced technology and analytics in FDA's performance of its mission. Where feasible, FDA participates in the development and uses voluntary consensus standards to help facilitate consistent and predictable product manufacturing and assessment, regulatory testing, clinical trial data exchange, and product labeling, just to name a few examples. Information exchange with our stakeholders promotes efficiency and awareness in the standards setting processes. The Agency looks for the appropriate time, process, and forum by which we can engage with standard development organizations. By doing so, FDA can facilitate standard setting activities and not hinder or duplicate efforts that are already underway in complementary bilateral or multilateral discussions. The use of voluntary consensus standards can increase predictability, streamline premarket review, and facilitate market entry for safe and effective products, including products of emerging technologies, under FDA regulatory authority.

In addition, FDA participates actively in the standard setting process of the Codex Alimentarius, which for over 50 years has provided governments with a venue for adoption of food standards to facilitate safety and fair-trade practices. Codex is a joint body of the Food and Agricultural Organization of the United Nations and of the World Health Organization, and the standards developed through this body are recognized by the World Trade Organization. FDA supports Codex through the participation of experts and delegates representing the United States and through hosting meetings, along with the (U.S. Department of Agriculture's (USDA) USDA Food Safety and Inspection Service. While FDA is not obligated to adopt the standards, Codex provides greater assurances of the safety of food imports, as many countries that export to the United States will adopt Codex standards.

Standards developed through interactions with various standard development bodies, including VCS organizations and/ or industry consortia, can provide benefit to both the Agency and our stakeholders in multiple ways such as:

- Standards can assist regulatory reviewers with assessment of products and product applications;
- Standards can assist industry with methodologies they can adopt for the assessment of their products;

- Standards often result in better utilization of limited internal resources;
- International standards can be used by multiple regulatory regions that can facilitate global harmonization, to the extent feasible;
- Direct participation by a broad group of stakeholders in development of standards can result in consensus among users, practitioners, manufacturers, and government regulators on safety and effective use of regulated products;
- Reduction in the costs and in transcription errors resulting from manual data entry such as for registrations and listing and adverse event reporting; and
- Reduction in the cost for incorporating new electronic processes such as electronic food and device labeling by leveraging existing exchange standards, business processes and information technology (IT) systems.

FDA policy is to help develop and use voluntary consensus standards wherever possible in the management of products FDA regulates. FDA supports the letter and spirit of the National Technology Transfer and Advancement Act (NTTAA) and the Office of Management and Budget (OMB) Directive. For more information about FDA's policies and procedures related to standards management, please see our Staff Manual Guide 9100.1 at: https://www.fda.gov/media/79684/download

For more information about FDA data standards and the FDA Data Standards Advisory Board, please see: http://www.fda.gov/ForIndustry/DataStandards/default.htm

Center for Devices and Radiological Health (CDRH)

CDRH gained additional authority under the 21st Century Cures Act to enhance its Standards Recognition Program. A final guidance titled Recognition and Withdrawal of Voluntary Consensus Standards published on September 15, 2020 notes that FDA will publish its rationales about recognition decisions, respond to recognition requests within 60 days and establish transition times to revised recognized standards (when appropriate). Finally, the guidance reflects FDA's commitment to periodically update the Recognized Standards Database with pending recognitions. This means that once FDA conveys its intention to recognize a standard it will appear in the standards recognition database. Manufacturers may cite it in premarket submissions and will no longer need to wait for the publication of a *Federal Register* notice.

During FY2024, in accordance with section 514(c), 21 U.S.C. 360d(c), FDA/CDRH published the following notices to the Federal Register to announce the addition, withdrawal, correction, and/or revision of certain consensus standards the Agency will recognize for use towards a declaration of conformity in premarket submissions and other requirements for medical devices:

Publications in the Federal Register related to Modifications to the List of Recognized Standards is available at
http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Standards/ucm123792.htm

Standards recognitions published during FY 2024:

Date	Federal Register Notice
June 24, 2024	FR Notice (List #62) [Docket No. FDA-2004-N-0451]
Federal Register, Volume 89 Issue 121 (Monday, June 24, 2024)	
March 1, 2024	FR Notice (List #61) [Docket No. FDA-2004-N-0451]

https://www.govinfo.gov/content/pkg/FR-2024-03-01/html/2024-04376.htm

Conformity Assessment

In general, conformity assessment activities for FDA-regulated products are conducted under applicable regulations and guidance that are informed by our standards development efforts described above.

Standards may become part of conformance activities as they may provide an acceptable approach to ensure compliance with applicable laws and regulations.

Effective September 19, 2023, the U.S. Food and Drug Administration's Accreditation Scheme for Conformity Assessment (ASCA Program) was converted from a pilot to a permanent program as authorized by Medical Device User Fee Amendments of 2022 (MDUFA V). Conceptualized to promote a least burdensome approach to medical device review, ASCA was developed in conjunction with the device manufacturing industry, standards development organizations and conformity assessment entities. The ASCA Program relies upon international consensus standards (ISO/IEC 17011 and ISO/IEC 17025) augmented by additional ASCA specifications and is designed to increase FDA's confidence in testing methods and results from ASCA-accredited testing laboratories. The ASCA Pilot is expected to make device review more efficient, ensuring patients have access to safe and effective medical devices without unnecessary delay. The ASCA Program continues to be implemented through guidances outlining program specifications that can be found on the ASCA web page and listed below:

- **ASCA Pilot program guidance:** *The Accreditation Scheme for Conformity Assessment (ASCA) Pilot Program - Final Guidance*
- **Basic Safety and Essential Performance standards-specific guidance:** *Basic Safety and Essential Performance of Medical Electrical Equipment, Medical Electrical Systems, and Laboratory Medical Equipment - Standards Specific Information for the Accreditation Scheme for Conformity Assessment (ASCA) Pilot Program*
- **Biocompatibility standards-specific guidance:** *Biocompatibility Testing of Medical Devices-Standards Specific Information for the Accreditation Scheme for Conformity Assessment (ASCA) Pilot Program*

The docket number: for these guidances are under docket FDA-2019-D-3805 published on September 25, 2020.

CDRH will report annually on the progress of the ASCA Program and work with stakeholders for further input on programmatic improvements and/or considerations for expansion.

Human Foods Program (HFP) and Center for Veterinary Medicine (CVM)

As of October 1, 2024, the unified Human Foods Program (HFP), a new model for field operations and other modernization efforts is now in effect. The reorganization establishes the HFP by realigning the functions of the Center for Food Safety and Applied Nutrition, the Office of Food Policy and Response, as well as key functions from the Office of Regulatory Affairs (ORA) under one program.[1] [2]

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[1] https://www.fda.gov/news-events/press-announcements/fdas-unified-human-foods-program-new-model-field-operations-and-other-modernization-efforts-go

[2] https://www.fda.gov/news-events/press-announcements/fdas-reorganization-approved-establishing-unified-human-foods-program-new-model-field-operations-and

The FDA Food Safety Modernization Act (FSMA) gives the Agency explicit authority to establish a program for accreditation of conformity assessment bodies (identified in the statute as third-party auditors) to conduct food safety audits and issue certifications of foreign food facilities for FDA-regulated food, which includes human food, and animal food. In 2015, FDA issued regulations (21 CFR Part 1 subpart M) establishing the Accredited Third-Party Certification Program. The regulations describe the framework, procedures, and requirements for accreditation bodies seeking recognition by the FDA, as well as requirements for third-party certification bodies seeking accreditation, under the program. Accreditation bodies and third-party certification bodies may use documentation of their conformance with ISO/IEC 17011:2004, ISO/IEC 17021:2011, and ISO/IEC 17065:2012 in meeting the requirements of the regulations, supplemented as necessary (e.g., to meet the conflict of interest, reporting, and notification standards in section 808 of the FD&C Act). FDA recommendations on third-party certification body qualifications for accreditation to conduct food safety audits and to issue food and/or facility certifications under the voluntary third-party certification program are contained in a guidance document entitled, "Third-Party Certification Body Accreditation for Food Safety Audits: Model Accreditation Standards: Guidance for Industry and FDA Staff."

As part of these recommendations, FDA cited ISO/IEC 17021:2011 and ISO/IEC 17065:2012, which are voluntary consensus standards on accreditation that are widely used in determining the qualifications of third-party conformity assessment bodies that audit and certify the food industry. As of the end of FY24, the FDA has recognized 4 accreditation bodies which have accredited 9 certification bodies. FDA maintains an online registry of accreditation bodies recognized, and certification bodies accredited, under this program.

FSMA also gives us express authority to establish a laboratory accreditation program for the analyses of human and animal foods. FDA issued a final rule in December 2021 establishing the Laboratory Accreditation for Analyses of Foods (LAAF) program. The final rule specifies the oversight, uniformity, and standards necessary to help ensure that the results of certain food testing of importance to public health are reliable and accurate. Under the LAAF program, FDA recognizes accreditation bodies that accredit laboratories to the standards established in the final rule ("LAAF accredit"); only LAAF-accredited laboratories may conduct the food testing covered by the final rule. The final rule incorporates by reference two voluntary consensus standards: ISO/IEC 17011:2017 forms the foundational requirement for accreditation bodies, and ISO/IEC 17025:2017 forms the foundational requirement for food testing laboratories. As of the end of FY24, FDA has recognized 8 accreditation bodies that have accredited 47 testing laboratories. FDA maintains an online registry of accreditation bodies recognized, and laboratories accredited, under this program.

FDA's Moffett Proficiency Testing Laboratory (Moffett PT), located within CFSAN's Office of Food Safety, Division of Food Processing Science and Technology and part of the Institute for Food Safety and Health (IFSH), has been an ISO/IEC 17043 accredited proficiency testing laboratory since February 2017 but has been in operation within FDA in varying capacities since the 1950s. This PT program's scope of work is expansive as it is the official PT provider for FDA's inter-/intra-agency programs (CVM Veterinary Laboratory Investigation and Response Network, Office of Regulatory Affairs (ORA) Office of Regulatory Science (ORS) Quality Assurance programs/dietary supplement adulteration, FDA/USDA Food Emergency Response Network) as well as regulatory and food safety programs for milk, shellfish, vitamins, and food microbiology. FDA's Moffett PT incorporates both food microbiological and chemical

analytes and matrices based on the historical, current, and emerging food safety and defense requirements of the FDA. Microbiological PT schemes, for example, include bioterror agents such as B. anthracis (attenuated), Y. pestis (attenuated) or F. tularensis (attenuated strains) and food pathogens such as Listeria, Salmonella, Vibrio and others in a variety of food products. Chemical PT schemes include glyphosate, tetramine, thallium, aflatoxin B1, carbamates, ricin and other toxins in a variety of food products. In addition, FDA's Moffett PT schemes include detection for fraudulent weight loss and erectile dysfunction drugs in dietary supplements. Moffett PT's expansive ISO/IEC 17043 accredited scope of work has greatly contributed to the groundwork built by FSMA for model laboratory standards, accreditation, and capability building of the nation's food laboratory networks.

Regarding pharmacovigilance, CVM personnel actively participate in the VICH pharmacovigilance expert working group. The full title of VICH is the "International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products. VICH is a trilateral (EU-Japan-USA) program that encourages participation from other global regions. The efforts of the working group members have culminated in the development of an internationally harmonized adverse event message, associated data standards, and 5 international PV VICH guidelines that has successfully been implemented in multiple regions and has facilitated exchange of safety information globally. One established data standard by VICH is Veterinary Dictionary of Drug Regulatory Activities (VeDDRA). VeDDRA is a list of clinical terms used for reporting suspected adverse events (AEs) in animals and humans to veterinary medicinal products and the list is updated annually. AE reporting using VEDDRA terminology ensures different regions and industry are all using the same terminology when reporting AEs. In addition, VICH working groups have established additional standards and maintenance procedures for VICH GL30 vocabulary lists which are harmonized lists of terms used as data elements in AE reporting.

Office of Regulatory Affairs (ORA)

Through self-coordinated or collaborative method development & research to support regulatory testing, the ORA Office of Regulatory Science (ORS) laboratory network actively contributes to the repertoire of consensus analytical methods that are published in the AOAC's compendium of the Official Methods of Analysis. According to 21CFR2.19, the Official Methods of Analysis of the AOAC INTERNATIONAL are specified to be used in cases where a method of analysis is not prescribed in the regulation.

Within the framework of a current FDA-USP Cooperative Research and Development Agreement (CRADA), ORA/ORS Laboratories also conduct analytical work aimed at updating USP pharmaceutical analysis monographs using USP reference materials.

ORA/ORS laboratories are accredited to ISO/IEC 17025:2017 standards. The FDA Forensic Chemistry Center (FCC), the ORS forensics specialized lab, is accredited to the standards of ANSI-ASQ National Accreditation Board (ANAB) in the field of Forensic Science Testing. ORA/ORS laboratories also conform to well established method validation and verification criteria such as ICH, USP, AOAC standards when qualifying their analytical methods. Each laboratory in the ORA/ORS network is audited by an ISO/IEC 17025:2017 accreditor.

Each laboratory conforms to the core requirements of a Quality Management System which includes the design and maintenance of a proficiency testing and exercise schedule. This proficiency testing program of ORA/ORS laboratories is called the National Check Sample Program and aims to provide an assessment of laboratory proficiency in performance of analytical methods in the accreditation scope.

Some proficiency tests utilized in the National Check Sample Program are internally generated sample panels prepared with third party vendor standard materials while other proficiency tests are obtained commercially.

ORA/ORS Laboratories are also active members of the Integrated Consortium of Laboratory Networks (ICLN) and CODEX International; and adopt consensus standards developed by these organizations that pertain to specialized testing areas such as veterinary drug residue testing, radiation testing, and pesticide testing.

ORA/ORS in coordination with CFSAN and CVM supports ISO/IEC 17025 accreditation of state food testing laboratories through the Manufactured Food Regulatory Program and the Flexible Funding Model. The program advances the nationally integrated food safety system (IFSS) specifically with regards to microbiological and chemical food analyses. This includes preparing state laboratories for accreditation enhancements. Data generated by awarded state laboratories will be available to inform FDA in its enforcement actions, surveillance, and response to foodborne outbreaks. These ISO accredited laboratories aid FDA with additional resources and exceptional data to maintain the safety of the food chain.

More detailed information on the Manufactured Food Regulatory Program and other standards-related programs managed by ORA can be accessed via the links below:

- Manufactured Food Regulatory Program Standards
- Flexible Funding Model
- National Integrated Food Safety System – Laboratory Capacity Building
- Voluntary National Retail Food Regulatory Program Standards
- Animal Feed Regulatory Program Standards

Center for Biologics Evaluation and Research (CBER)

In September of 2024, the Center for Biologics Evaluation and Research's (CBER) Division of Biological Standards and Quality Control (DBSQC), which is in the Office of Compliance and Biologics Quality, was audited for ISO 17025:2017: "General requirements for the Competence of Testing and Calibration Laboratories" for the biological and chemical testing for product lot release, and ISO 17034:2016: "General Requirements for the Competence of Reference Material Producers." No deficiencies were identified during the audit. The reference materials produced and calibrated by DBSQC included influenza antigens and sheep antisera for influenza vaccine potency testing, as well as tetanus and diphtheria antitoxin for flocculation tests. Reagents for egg-propagated, cell-propagated and recombinant A(H1N1)pdm09, A(H3N2) and B/Victoria-lineage seasonal influenza vaccine components as well as A(H2N3), A(H5N6), A(H5N8), A(H7N9) and A(H9N2) pandemic reagents were prepared and calibrated by CBER; DBSQC also collaborated with the WHO Essential Regulatory Laboratories at MHRA, UK; TGA, Australia; and NIID, Japan to calibrate influenza reagents produced to support influenza vaccine manufacturing world-wide.

CBER's Laboratory of Immunobiochemistry (LIB), in the Division of Bacterial, Parasitic and Allergenic Products, Office of Vaccines Research and Review, was internally audited for ISO 17025: 2017 re-accreditation in September 2024; no deficiencies were identified. The scope of accreditation for the LIB covers the "ELISA Competition Assay for Quantitative Determination of Relative Potency of Allergenic Extracts." Additionally, LIB has reviewed over 451 protocols for lot release in conjunction with ELISA potency tests and shipped over 4,000 references to manufacturers of allergenic products during FY

2024. Finally, LIB replaced references C16-Cat, C16b-Ras, E12-Ber, and E10-Ti during FY 2024 as part of the Reference Replacement Maintenance Program.

CBER coordinates with CDER to implement data standards related to the following:

- Real-World Data and Real-World Evidence
- Identification of Medicinal Products
- CDISC standards for clinical and nonclinical study data and terminologies (e.g., MedDRA, SNOMED CT, WHO Drug Global)
- ICH M11, the Clinical Electronic Structured Harmonized Protocol
- HL7 v3 and FHIR for exchange of data for numerous use cases including labeling, drug registration and listing, and other use cases
- HL7 ICSR for adverse event data
- ICH eCTD v 4 for content of regulatory submissions
- ICH M4Q(R2) to standardize Quality information submitted within eCTD modules 2 and 3
- Bioresearch Monitoring Data Standards
- BioCompute Objects for High-throughput Sequencing Data
- For more information, see Study Data for Submission to CDER and CBER | FDA and FDA Data Standards Advisory Board | FDA
- ICH Q1/Q5C Guidance on stability: This revision will combine CBER regulated complex biologics such as vaccines and Cell and Gene Therapy product to the list of small molecules and well characterized biological products regulated by CDER, to provide harmonized advice to sponsors.

The 21st Century Cures Act was signed into law in December 2016. Section 3036 directs the FDA to collaborate with the National Institute of Standards and Technology (NIST) and FDA stakeholders to coordinate and prioritize standards development for regenerative medicine and regenerative medicine advanced therapies. CBER awarded a contract to Nexight Group and the Standards Coordinating Body (SCB) in 2017 to establish a collaboration consisting of FDA, NIST, and stakeholders, to coordinate the development and implementation of the processes and criteria to identify and prioritize standards that have a high impact on the quality and safety of regenerative medicine products and determine whether the development of any specific standard is feasible. This contract has been extended to 2024 with deliverables to include the identification of needed standards, the conduct of feasibility assessments for needed standards, maintenance of the standards web portal that allows for stakeholders to search form standards under development and standards available, and stakeholder outreach to experts for input on standards under development.

To encourage the use of standards for regenerative medicine products, CBER published the final guidance Voluntary Consensus Standards Recognition Program for Regenerative Medicine Therapies on October 19, 2023 (https://www.fda.gov/media/159237/downloadThis guidance describes a standards recognition program for regenerative medicine therapies (SRP-RMT) at FDA's Center for Biologics Evaluation and Research (CBER) designed to identify and recognize Voluntary Consensus Standards (VCS) to facilitate the development and assessment of regenerative medicine therapy (RMT) products regulated by CBER when such standards are appropriate. CBER encourages the use of appropriate standards in the development of CBER-regulated products. The use of recognized VCS can assist stakeholders in more efficiently meeting regulatory requirements and increasing regulatory predictability for RMT products. This program is modeled after the formal standards and conformity assessment program or S-CAP for medical devices. CBER will post a list of recognized standards on the regenerative medicine therapies portion of the FDA website https://www.fda.gov/vaccines-blood-

biologics/standards-development-regenerative-medicine-therapies. Since implementation of the SRP-RMT, CBER has reviewed and recognized 23 standards.

Center for Drug Evaluation (CDER)

CDER recognized the following pharmaceutical quality standards through the Program for the Recognition of Voluntary Consensus Standards Related to Pharmaceutical Quality:

1. ASTM Standard Test Method for Measuring the Size of Nanoparticles in Aqueous Media Using Dynamic Light Scattering.
2. Standard Practice for Process Step to Inactivate Rodent Retrovirus with Triton X-100 Treatment.
3. Standard Practice for Process for Inactivation of Rodent Retrovirus by pH.

Additional information can be found on the program's webpage (https://www.fda.gov/drugs/cder-program-recognition-voluntary-consensus-standards-related-pharmaceutical-quality-cder-quality).

Section 3022 of the 21st Century Cures Act directs FDA to "establish a program to evaluate the potential use of Real World Evidence (1) to help to support the approval of a new indication for a drug approved under section 505(c); and (2) to help to support or satisfy post-approval study requirements." Real World Evidence (RWE) is generated from data sources other than those typical of clinical trials used for drug approval. RWE sources include, but are not limited to, healthcare records, insurance claims, or dedicated registries for drugs or diseases. The interest in using RWE stems from its potential to facilitate more timely and cost-effective demonstrations of efficacy, safety, and the ability to understand drug effects across a wider population than currently possible with traditional clinical trials, thus providing improved benefits to the public.

As part of the 21st Century Cures directives, FDA is to create a framework establishing the RWE program, along with Guidance documents for industry, informed by communications with stakeholders from industry and the public. To fulfil these mandates, in 2017 CDER established a committee and associated workgroups dedicated to this effort with participation from multiple FDA Centers. Throughout 2017 and 2018, these groups have (1) developed a draft RWE Framework that was published in December 2018; (2) established workgroups to develop Guidance on a range of topics pertinent to the use of this data; (3) reviewed the range of RWE already in use for FDA submission; (4) and engaged with stakeholders from industries and the public through participation in meetings and workshops focused on the use of RWE for clinical research and regulatory submissions. Meetings were facilitated by stakeholders including the Margolis Center for Health Policy at Duke University and the National Academies of Sciences. Attending stakeholders at various meetings included a spectrum of representatives from the pharmaceutical industry, healthcare, academia, patient organizations, standards development organizations such as Health Level 7 (HL7) and Clinical Data Interchange Standards Consortium (CDISC), and other members of the general public. In 2019 the Center began examining the ability of current submission data standards to accommodate real-world data and develop a roadmap to optimizing these standards in the future for real-world data submission. As with other FDA data standards activity, consensus-based standards such as those from CDISC and HL7 are being explored. In 2020, FDA developed the draft guidance "Real-World Data: Assessing Electronic Health Records and Medical Claims Data to Support Regulatory Decision-Making for Drug and Biological Products" that was published in September 2021. Another draft guidance focusing on data standards considerations for submission of studies containing RWD was developed in 2021. In 2022, FDA has collated and addressed all public comments for the draft RWD guidance and is revising the document to prepare for publication of the final guidance. FDA further explored opportunities to adapt HL7 Fast

Healthcare Interoperability Resources (FHIR) for Real World Data submissions through engagement with HL7 Vulcan Accelerator Track, resulting in the development of draft Implementation guides (IG) for two use cases (Acute Coronary Syndrome and Anti-TNFa Treatment in Patients with Crohn's Disease). The final RWD guidance was published in December 2023. FDA continued its engagement with the HL7 Vulcan Accelerator testing and refining the FHIR RWD Implementation Guide (IG). The IG was balloted and published as Standard for Trial Use (STU) in May of 2023. In 2024, the RWD standardization initiative completed a CDER-CBER reviewers evaluation of its prioritized RWD data domains and data elements identified for supporting the needs of RWD research and regulatory submissions. Based on reviewer feedback, the revised data domains and elements will be share with the public for comments in a Federal Register Notice (FRN) that is targeted for publication in Q1 of 2025. FDA will continue to explore and evaluate approaches to standardize RWD for regulatory submission in 2025 and beyond.

FDA is also working to standardize submissions for the information submitted in Electronic Common Technical Document (eCTD) Module 3 covering Pharmaceutical Quality, Chemistry, Manufacturing, and Controls (PQ/CMC). In 2017, a Federal Register Notice was published documenting structured data and associated vocabularies for approximately one-third of Module 3 information. In 2019, development began for Phase 1 of the PQCMC effort by using HL7 FHIR as the exchange standard to represent an initiate set of eCTD Module 3 structured data for submissions. In 2020, the Center initiated Phase 2 of the development effort to standardize the remaining information for eCTD Module 3. Development continued into 2021 and a Federal Register Notice (FRN) detailing the FHIR mapping of all Phase 1 PQ/CMC data elements is in the clearance process. In 2022, FDA published a FRN requesting for comments on the Draft Pharmaceutical Quality/Chemistry Manufacturing and Controls Data Exchange, and later addressed public comments resulting in revisions to PQCMC Phase 1 data elements and the completion of the PQ/CMC Phase 1 Interim Implementation Guide. In 2023, FDA published a FRN announcing the establishment of an open docket on matters related to PQ/CMC Data Elements and Controlled Terminologies, which entails a new process for release of relevant information for public comment where each update will be made available on the public-facing FDA PQCMC webpage designated as a new "Chapter" that contributes to a growing set of draft data elements and terminology. By the end of 2023, the Agency completed development of all Phase 1 PQCMC data elements. In 2024, FDA completed technical developments and conducted two tests of PQCMC FHIR IG content at the January and September HL7 Connectathon. The Stage 1 FHIR IG for "Pharmaceutical Quality - Chemistry, Manufacturing and Controls (PQ-CMC) Submissions to FDA" passed HL7 ballot in May 2024 and the agency has completed adjudication of all ballot comments. In 2025, the initiative is expected to proceed through the HL7 process for approval to publish the Stage 1 IG which will have an official version, Standard for Trial Use (STU) v1.0.0.

ISO Identification of Medicinal Product (IDMP) is a suite of five related standards to identify and describe medicinal products and to exchange of product information between partners to support pharmacovigilance, product shortage, and other regulatory activities. The Integrity Product Domain and Global Substance Registration System are built based on ISO 11615/ISO 11616 and ISO 11238 respectively to be the master repository for CDER regulated medicinal products and FDA regulated substances. To enable pharmacovigilance across multiple jurisdictions or at global level, FDA continues to participate in the revision and enhancement of IDMP standards with ISO TC 215, and to collaborate with other regulators for harmonized approach for IDMP development. In 2022, FDA jointly established the Global IDMP Working Group (GIDWG) with WHO-UMC and EMA to conduct and report on projects leading to the establishment of a framework for the global implementation of the ISO IDMP standards and maintenance of global identifiers. The GIDWG initiated 5 pilot projects to identify challenges and mitigation to establish common grounds, business rules, and processes to facilitate global IDMP implementation. In 2023, FDA published the final IDMP Guidance: "Identification of Medicinal Products:

Implementation and Use". This guidance explains the FDA's position and progress on aligning the Agency's standards to IDMP standards, with the goal of harmonizing the standards for international exchange of medicinal product data. FDA continues to collaborate with EMA, WHO, WHO-UMC to establish a framework for maintenance of Global Substance and Global Pharmaceutical Product Identifiers. In 2024, based on the established framework and business rules, the GIDWG completed the Global PhPID End-to-End test which successfully assigned Global Substance IDs to 96% of the 150 selected substances and Global PhPIDs to 90% of the 2,947 medicinal products provided by nine regulators. This initiative will continue in 2025 with the expected completion of ISO IDMP standards revisions (ISO 11615, ISO 11616, TS 20443, and TS 20451), while ensuring the implementation of a harmonized approach to generating global PhPIDs and the process of linking similar medicinal products across regions is compatible with, and supported by, the standards currently used by the FDA.

Center for Tobacco Products (CTP)

Catalyzed by NTTAA and OMB circular A-119 and to encourage the appropriate use of voluntary consensus standard, CTP is preparing to draft a guidance for industry and develop a CTP standards recognition program. The initial focus is on testing methods but may expand the scope in the future to include other types of standards such as software or human factors testing standards.

In partnership with Clinical Data Interchange Standards Consortium (CDISC), CTP developed data standards to facilitate tobacco product research and scientific review. On June 10, 2024, CDISC released Tobacco Implementation Guide v1.0, a foundational data standard that can help optimize scientific accuracy and review efficiency. The guide was developed by a multidisciplinary team from CTP, tobacco industry stakeholders, and CDISC, and included public/community review. This initial version of the Guide implements several data models, including Clinical Data Acquisition Standards Harmonization, Study Data Tabulation Model, and Analysis Data Model.

6) Health Resources and Services Administration (HRSA)

As part of required Health Center Program data reporting, the Health Resources and Services Administration (HRSA) collects information on clinical quality measurements that align with Centers for Medicare & Medicaid Services standards and participates in the Electronic Medical Record workgroup to support these standards. Through the Uniform Data System (UDS+) interoperability data collection pilot initiative, currently paused, HRSA worked with the Assistant Secretary for Technology Policy's Office of the National Coordinator to create a health center-specific implementation guide through HL7 that uses USCDI and USCDI+ standards. By using already accepted HHS-wide and industry wide clinical measurement and reporting standards, HRSA ensures limited reporting burden along with increased consistency and standardization for federally qualified health centers.

HRSA UDS+ implementation guide: UDS Plus Home Page - HRSA 2024 Uniform Data System (UDS) Patient Level Submission (PLS) (UDS+) FHIR IG v2.0.0

7) National Institutes of Health

National Library of Medicine (NLM)

The National Library of Medicine (NLM) is a leader in biomedical informatics and computational health data science research and the world's largest biomedical library. With a mission to acquire, collect, preserve, and disseminate materials relevant to research, medicine, and public health, NLM makes the world's biomedical data and information discoverable and accessible to all: scientists, clinicians, students, educators, librarians, and the public. NLM's biomedical information services enable data-driven scientific discovery, health care, and public health. In addition, NLM's innovative research programs develop and apply novel computational approaches to accelerate biomedical discovery and advance health.

As the central coordinating body within the U.S. Department of Health and Human Services for clinical terminology standards for health data interoperability, NLM plays a critical role in promoting health data interoperability through the development, maintenance, and dissemination of health data standards. In this role, NLM works across the National Institutes of Health and federal government to advance the interoperable exchange of health data for care and quality reporting in support of federal health information technology (IT) interoperability requirements and of research.

In FY 2024, NLM continued to support improvements in health data standards, services for standards-based information sharing, and use of standards in its literature services. NLM continued to support the improvement of three standards used to assure the precise and current representation of terms and codes needed for clinical care and research:

1) SNOMED CT® (Systematized Nomenclature of Medicine Clinical Terms): Supported expansion by adding more than 9,000 concepts and the addition of more than 200 concepts to enable users to capture information specific to the U.S. health care system.

2) LOINC® (Logical Observation Identifiers, Names and Codes): Added over 2,000 new terms to support the provision of high-quality interoperable laboratory information.

3) RxNorm: Added nearly 300 new terms to facilitate sharing of over-the-counter and prescription drug-related information in support of care management and payment activities in health care.

NLM also continued to support services that facilitate standards-based information sharing for health care and public health:

1) MedlinePlus Connect: Provides patients and clinicians with direct, tailored access to MedlinePlus resources automatically through EHR systems, patient portals, and other health information technology (IT) systems at the point of care. In FY 2024, MedlinePlus Connect responded to more than 250 million electronic requests from health IT systems.

2) Value Set Authority Center: A repository and authoring tool for value sets, or lists of codes and corresponding terms, from NLM-hosted standard clinical vocabularies (such as SNOMED CT®, LOINC®, and RxNorm), that define clinical concepts to support effective and interoperable health information exchange.

In FY 2024, in collaboration with the Centers for Medicare & Medicaid Services and the Assistant Secretary for Technology Policy/Office of the National Coordinator for Health Information Technology, NLM published value set specifications for the 2024 electronic clinical quality measures (eCQMs) and the Health Level Seven International (HL7) Consolidated Clinical Document Architecture (C-CDA) value sets.

Lastly, NLM continued to employ use of and provide support for the Journal Article Tag Suite (JATS), an application of NISO Z39.96-2021, which defines a set of XML elements and attributes for tagging journal articles and describes three article models. NLM supported the NISO JATS Standing Committee by acting as a vital resource in the 2024 release of JATS version 1.3.

8) Substance Abuse and Mental Health Services Administration (SAMHSA)

SAMHSA collaborates with various agencies within the Department of Health and Human Services , including the Centers for Medicare and Medicaid Services (CMS), to align and enhance quality measures in behavioral health care. A key partner in this endeavor is the CMS-contracted consensus-based entity, currently Battelle's Partnership for Quality Measurement (PQM™). PQM employs a consensus-driven process that involves clinicians, patients, measure experts, and health information technology specialists to review and endorse quality measures for federal reporting.

In 2024, SAMHSA's involvement with PQM included development and refinement quality measures for Certified Community Behavioral Health Clinics. The *Quality Measures for Behavioral Health Clinics Technical Specifications and Resource Manual* provides detailed specifications for these measures, many of which are endorsed by consensus-based entities like PQM. This manual outlines the collaborative efforts between SAMHSA, CMS, and other partners to ensure that quality measures are evidence-based, feasible, and aligned with federal reporting requirements.

Additional SAMHSA activities in 2024 include:

- Participation in the 2024 Medicaid and Children's Health Insurance Program Core Set Quality Measure Workgroups- SAMHSA served as a federal liaison in updating and implementing the 2024 Core Sets:
    - 2024 Adult Core Set
    - 2024 Child Core Set
- Support for the 2024 Health Home Core Set:
  SAMHSA contributed to the 2024 quality measures supporting integrated care through Medicaid Health Home Programs-
    - 2024 Health Home Core Set
- Governance and Endorsement of 2024 Electronic Clinical Quality Measures (eCQMs): SAMHSA participated in the 2024 governance of electronic clinical quality measures eCQMs used across Medicaid and Medicare, including the Merit-Based Incentive Payment System-
    - 2024 CMS eCQMs
    - 2024 Merit-Based Incentive Payment System Quality Measures
- Maintenance of Endorsed Substance Use Disorder Measures:
  Under a 2024 Interagency Agreement with CMS, SAMHSA continued to maintain three PQM-endorsed quality measures specific to substance use disorder treatment, supporting consistency and reliability in national behavioral health reporting.

SAMHSA's 2024 efforts reflect its commitment to scientific integrity and stakeholder engagement. These activities help ensure that behavioral health services are evaluated through measures that are not only valid and reliable but also aligned with broader federal health care improvement goals.

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Current total GUS = 1

Table 1: Current Government Unique Standards FY2024

(1) Government Unique Standard

FDA Guidelines on Aseptic Processing (2004) [Incorporated: 2004]

Voluntary Standard

ISO 13408-1 Aseptic Processing of Health Care Products, Part 1, General Requirements

Rationale

FDA 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

Under Secretary
U.S. Department of Homeland Security
Washington, DC

Science and Technology

April 8, 2025

MEMORANDUM FOR THE DEPUTY SECRETARY:

FROM: Julie S. Brewer
Acting Under Secretary

SUBJECT: **DHS Response to the National Technology Transfer and Advancement Act (NTTAA) Agency Annual Reporting on Fiscal Year 2024 Standards Activities**

The Department of Homeland Security (DHS), through the Science and Technology Directorate's (S&T) Office of Science and Engineering (OSE), Systems Engineering and Standards Division (SES), responds to the National Technology Transfer and Advancement Act (NTTAA) Agency Annual report on standards use and activities throughout the previous fiscal year (FY). Per the Office of Management and Budget (OMB) Circular A-119 "Federal Participation in the Development and Use of Voluntary Consensus Standards (VCS) and in Conformity Assessment Activities", federal agencies must provide to OMB, through the National Institute of Standards and Technology (NIST), (1) a report of the agency's use of government-unique standards (GUS) in lieu of VCS, along with an explanation of reasons for such usage, as required by Section 12(d) of the NTTAA and as described in Section 5c of the Circular, and (2) a summary of your agency's activities undertaken to carry out the provisions of this Circular. Responses are public and reported to Congress through OMB.

S&T collected input from DHS Components on FY2024 standards activities and compiled the attached report and associated participation in standards development organizations (SDOs). As completed in previous years, this report will be sent to NIST in compliance with federal standards statutes and policy guidance.

Please contact Renee Stevens, renee.stevens@hq.dhs.gov and cc the Standards inbox, standards@hq.dhs.gov, with any questions.

Previous reports can be found at NTTAA Reports | NIST.

Overview:

At the core of federal standards policy are the National Technology Transfer and Advancement Act (NTTAA)[1] and the Office of Management and Budget (OMB) Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities". The NTTAA directs agencies to "use technical standards that are developed or adopted by voluntary consensus standards bodies;" consult with voluntary, private sector, and consensus standards bodies and participate in them when it is in the public interest and compatible with the departmental mission. In addition, the NTTAA requires agencies to send OMB explanations of any non-usage of applicable voluntary consensus standards.

[1] Specifically, Pub. L. 104-113 §12(d), 109 Stat. 783, 15 U.S.C. 272 note

OMB Circular A-119 provides policy and guidance on the implementation of the NTTAA. Specifically, OMB Circular A-119 requires agencies "to provide to OMB, through NIST, (1) a report on the agency's use of government-unique standards in lieu of voluntary consensus standards, along with an explanation of the reasons for such usage…and (2) a summary of your agency's activities undertaken to carry out the provisions of this Circular." Agency Standards Executives are responsible for the preparation the report; agency heads are responsible for its transmission.

DHS standards policy is codified in title 6 of U.S. Code section 112 (g)[2], which adopts section 12 (d) of the NTTAA and OMB Circular A-119.

In addition, issuance of DHS Directive 078-04, "Standards Policy Governance and Coordination," created a governance and coordination framework for DHS standards and conformity assessment activities. A key feature of this Directive is the establishment of Component Standards Executives (CSEs). CSEs collaborate on strategies, policies, and other issues related to implementing Directive 078-04 and OMB Circular A-119 and are available to advise and inform the Under Secretary for Science and Technology (USST) on such issues.

DHS standards policy also includes DHS Directive 078-01, "Adoption and Maintenance of the Department of Homeland Security National Standards," which provides general guidance for the review, adoption, revision, or retirement of DHS national standards.

Participation in standards development organizations (SDOs) is facilitated through DHS Management Directive 2300 (MD2300), "Committee Management." Components are individually responsible for implementation of MD2300 which covers procedures for participation of DHS personnel on committees of other organizations (e.g., SDOs). In February 2024, S&T published an internal procedure, Procedure for S&T (PoST) 06-005-000 "Federal Employee Participation in Non-Government Standards Bodies (NGSBs)" covering participation in standards-specific organizations. This procedure complies with the requirements of MD2300 and is specific to S&T and standards participation.

Since 2004, S&T has prepared and submitted the Department's contribution to the NTTAA Agency Annual report. In 2006, S&T established the DHS Standards Council to coordinate the Department's standards activities and improve the quality of the information submitted to NIST. In 2016, OMB revised Circular A-119, which has resulted in significantly less data being requested by NIST and subsequently reducing the reporting burden on the agencies.

NIST also requested information regarding the standards development organizations (SDOs) in which DHS personnel are participating/participated in FY2024.

The following are the questions, received from the National Institute of Standards and Technology (NIST) for this year's National Technology Transfer and Advancement Act (NTTAA) agency annual report on FY2024 standards activities:

1. *Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available; and*

[2] Pub. L 107-296, §102 (g)

2. *Please list the government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note that GUS which are still in effect from previous years should continue to be listed, thus the total number in your agency's report will include all GUS currently in use (previous years and new as of this FY).*

NOTE: *List ALL government-unique standards you are currently using and indicate on your list which, if any, of the standards are new – your Component began using – in FY2024.*

Attachments:

A. DHS Response: FY2024 NTTAA Report
B. DHS Participation in Standards Development Organizations (SDOs)

Science and Technology

April 8, 2025

MEMORANDUM FOR: Cheryl W. Levey
National Institute of Standards and Technology (NIST)
Standards Coordination Office (SCO)

FROM: Renee Stevens
DHS S&T Senior Standards Advisor
DHS Standards Executive

SUBJECT: **DHS Response | Annual National Technology Transfer and Advancement Act (NTTAA) Report on Fiscal Year 2024 Standards Activities**

Attached is the Department of Homeland Security's (DHS) response to the annual National Technology Transfer and Advancement Act (NTTAA) report to the National Institute of Standards and Technology (NIST) on Fiscal Year 2024 Standards Activities and the Identification of Component Standards Executives. The DHS Science and Technology Directorate's (S&T) Office of Science and Engineering (OSE), Systems Engineering & Standards Division (SES), responds to the NTTAA report on behalf of DHS regarding the Department's use of voluntary consensus standards and participation and conformity assessment activities.

Per the NTTAA and the revised OMB Circular A-119, DHS reports on the following two questions:

1. *Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.*

   The itemized summary is detailed in Attachment 1.

2. *Please list the government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards during FY 2024. Please note that GUS which are still in effect from previous years should continue to be listed, thus the total number in your agency's report will include all GUS currently in use (previous years and new as of this FY).*

There are no government-unique standards that were used in lieu of voluntary consensus standards that are new in FY2024. Note that the documented use of GUS is charted in Attachment 2, and no voluntary consensus standards (VCS) apply to current internal standards.

DHS S&T coordinates standards-activities across the Department in compliance with and to implement OMB Circular A-119 and NTTAA. In FY24, DHS S&T focused on coordinating the Department's involvement in artificial intelligence (AI) related standards activities. Within the Department, S&T actively led AI standards engagement through the establishment of the DHS AI Standards Advisory Committee housed under the DHS Standards Council. The Council combines expertise from across DHS to ensure consistency of regulations, rulemaking, and innovation and subsequent standards development reflect DHS mission goals and operational needs. The AI Standards Advisory Committee developed the first DHS "Artificial Intelligence (AI) Standards Roadmap" FY25-FY27, published December 2024 (currently under revision for alignment with applicable Executive Orders (EO), including EO 14179 *Removing Barriers to American Leadership in Artificial Intelligence*) and is in the process of developing a "Guideline for Incorporation of Standards in Procurement of AI Technologies". This guideline will align with DHS policies and support procurement best practices related to AI technologies and operational implementation. Also, AI was reflected in project work as DHS S&T's standards development projects expanded to incorporate AI-capabilities. These projects include work with test methods for response robots and the development of a standard for aerial drone data protection and cybersecurity.

In addition to internal coordination, S&T participated in the InterNational Committee for Information Technology Standards (INCITS) as the DHS Principal Member on the Artificial Intelligence Technical Committee to support the development of AI standards and facilitate cross-component participation in the Department. DHS S&T continues to participate in interagency efforts, including representation on the Interagency Committee on Standards Policy (ICSP) and as co-chair, with the National Institute of Standards and Technology (NIST), of the AI Standards Coordination Working Group (AISCWG).

DHS S&T maintains the essentiality of standards in support of operational tools and methods development and facilitation of community engagement to guide the design and identify strategies for mitigation of AI threats. Advancing trustworthy AI technology via standards protects both individual and National security and amplifies delivery of innovative capabilities.

All questions or additional requests for information should be communicated to DHS S&T OSE via Renee Stevens, Senior Standards Advisor (renee.stevens@hq.dhs.gov) and cc the Standards inbox (standards@hq.dhs.gov).

Attachments

1. Attachment 1: DHS FY 2024 Agency Report
2. Attachment 2: List of Government-Unique Standards (GUS) currently (as of FY2024) in use by DHS Components

Attachment 1
Department of Homeland Security (DHS) Fiscal Year 2024 Agency Report

The Department of Homeland Security (DHS) standards policy was established as part of the Homeland Security Act of 2002, incorporating the National Technology Transfer and Advancement Act of 1995 and the Office of Management and Budget Circular A-119. Implementation of the Circular was delegated to the Under Secretary for Science and Technology by the Secretary of Homeland Security.

A summary of DHS Components that were active in FY2024 in carrying out the provisions of OMB Circular A-119 includes multiple Components and divisions. For more information about DHS visit www.dhs.gov. Summaries of the responses are presented in the following pages and categorized by Component.

1. ***Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.***

CUSTOMS AND BORDER PROTECTION (CBP)

CBP Laboratories and Scientific Services (LSS) utilizes consensus standards from the following groups:

- AAFS – American Academy of Forensic Sciences
- AATCC - American Association of Textile Chemists and Colorists
- ABC - American Board of Criminalistics
- ACS – American Chemical Society
- AIC - Arizona Identification Council (AIC)
- ANAB - ANSI National Accreditation Board
- ANSI - American National Standards Institute
- AOAC – Association of Official Agricultural Chemists
- API - American Petroleum Institute
- ASB - Auditing Standards Board (under American Institute of Certified Public Accountants)
- ASCP - American Society for Clinical Pathology)
- ASME - American Society of Mechanical Engineers
- ASTM - American Society of Testing and Materials
- ASTM- ASTM International (formerly American Society for Testing and Materials)
- CFSRE – Center for Forensic Science Research & Education
- CFTT - National Institute of Standards (NIST) Computer Forensics Tool Testing Program
- CSAFE – Center for Statistics and Application in Forensic Evidence
- IACIS - International Association of Computer Forensic Examiners
- IAI - International Association for Identification
- ICUMSA - International Commission for Uniform Methods of Sugar Analysis
- ISO – International Organization for Standardization
- IEEE - Institute of Electrical and Electronics Engineers Standards Association
- NAFTZ - National Association of Free Trade Zones
- NFPA - National Fire Protection Association
- OSAC - Organization of Scientific Area Committees for Forensic Science
- SAE - Society of Automotive Engineers
- SAFS - Southern Association of Forensic Scientists
- SANS - SANS Institute Best Practices (SysAdmin, Audit, Network and Security)
- SWAFS - Southwestern Association of Forensic Scientists
- SWGDE - Scientific Working Group on Digital Evidence

- SWGDRUG – Scientific Working Group for the Analysis of Seized Drugs
- TIC Council - Testing, Inspection, and Certification Council (formerly IFIA – International Federation of Inspection Agencies)
- USP – US Pharmacopeia

Government Standards:

- CISA – Cybersecurity and Infrastructure Security Agency
- EPA – Environmental Protection Agency

CBP-LSS is directly involved in the development of consensus standards for the following:

- ASTM – American Society of Testing and Materials
  - D02 Committee – Petroleum Products, Liquid Fuels, and Lubricants
  - E30 Committee - Forensics
- American Petroleum Institute (API)
  - Committee on Petroleum Measurement Standards (COPM)
- NIST Organization of Scientific Area Committees (OSAC)
  - Forensic Science Dogs and Sensors Subcommittee (affiliate member)
  - Seized Drugs Subcommittee (affiliate member)
- AIC
  - Member, Board of Directors

CBP standards-specific websites:

- *https://www.cbp.gov/about/labs-scientific-svcs/technical-documents/lab-methods*
- Directory of Accredited Organizations - ANAB (Search Customs and Border Protection)

COUNTERING WEAPONS OF MASS DESTRUCTION (CWMD)

CWMD – Chief Data Office (CDO)

CWMD, from a CDO scope, has been working with NIST to create an ASTM Bio Standard. The CDO linkage is to the National Information Exchange Model (NIEM), which is now called NIEM Open. NIEM is a DHS mandate, so the CDO wants to ensure that the ASTM Bio Standard is in conformance with NIEM.

There are no links from the CDO perspective; those are kept by CWMD Systems Support Directorate (SSD), since they are the Components' Standards Executive (CSE).

CWMD – Systems Support Directorate (SSD)

In 2024, CWMD continued activities in accordance with OMB Circular A-119 which directs that "agencies must consult with voluntary consensus standards bodies in the development of standards when consultation and participation is in the public interest and is compatible with their missions, authorities, priorities, and budgetary resources." To this end, CWMD continued to sponsor and participate in the development and maintenance of the Institute of Electrical and Electronics Engineers (IEEE) and American National Standards Institute (ANSI) voluntary consensus standards for radiation and nuclear threat detection systems used in homeland security and American Society for Testing and Materials (ASTM) International voluntary consensus standards for biological threat detection systems. The Program continued the revision of the IEEE N42.35 standard for Radiation Portal Monitors which is on track to be published in 2025. CWMD continued support and participation in of an ASTM Task Group, WK83732, to develop a Data Format Standard for Biodetection Instruments. The draft standard is currently undergoing a thorough check for compliance with the interagency NIEM framework for emergency response information exchange. CWMD continued participation with the U.S. National Committee for International Electrotechnical Commission (IEC) international standards for radiation detection systems. In 2024 CWMD participated in the efforts of an IEC Standards Working Group for the development of a standard for radiation detection equipment replay tools.

CWMD continued to sponsor free access to IEEE Series N42 standards for radiation detection for homeland security that are available at: https://ieeexplore.ieee.org/browse/standards/get-program/page.

CYBERSECURITY AND INFRASTRUCTURE SECURITY AGENCY (CISA)

The Cybersecurity and Infrastructure Security Agency (CISA) partners with standards organizations, consistent with CISA authorities, strategic plan, and DHS International Cybersecurity priorities, to drive policies and create standards to improve interoperability and automate cybersecurity operations, among other outcomes. CISA works with domestic and international partners and engages in standards development at the national and international levels. CISA participates in the following standards bodies: 3rd Generation Partnerships Project (3GPP), Institute of Electrical and Electronic Engineers (IEEE), International Telecommunication Union (ITU), Global Systems for Mobile Communication Alliance (GSMA), Internet Engineering Task Force (IETF), Alliance for Telecommunications Industry Standards (ATIS), Wi-Fi Alliance, O-RAN Alliance, Wireless Broadband Alliance, and OASIS Open. Within those bodies, CISA participates to monitor, support, and influence standards development activities relevant to agency mission objectives.

The CISA ECD participates and influence the work in industry standard development organizations (SDOs) and standards groups developing standards for telecommunications/information communication technologies and mobile communication networks in support of the PTS programs. Specifically, CISA ECD participates and contributes to the development of industry standards to ensure continued support of WPS and GETS and the support of planned Next Generation Network Priority Services (NGN-PS) for voice/video, data and messaging services in evolving communications networks.

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

The Federal Emergency Management Agency (FEMA) Resilience staff, to include Building Science Division, Floodplain Management Division, and Hazard Mitigation Assistance, participate as members of committees involved in the ASCE flood standards to ensure the consensus standards comply with the minimum standards set forth in Code of Federal Regulations, Part 60 – Criteria For Land Management and Use, Subpart A-Requirements for Flood Plain Management Regulations which sets forth participation requirements for communities for the National Flood Insurance Program, specifically 60.3 (https://www.ecfr.gov/current/title-44/chapter-I/subchapter-B/part-60). In addition, FEMA provides subject matter experts to participate on design standards committees and the update cycles of the consensus-based model codes. These standards include:

- ICC 500: Standard for the Design and Construction of Storm Shelters
- ICC 600: Standard for Residential Construction in High Wind Regions
- ASCE 7: Minimum Design Loads and Associated Criteria for Buildings and Other Structures
- ASCE/SEI/AMS: Wind Speed Estimation Standard
- ASCE 24: Flood Resistant Design and Construction
- ASCE/SEI 41: Seismic Evaluation and Retrofit of Existing Buildings
- ICC 605: Standard for Residential Construction in Regions with Seismic Hazard
- ASTM E3075: Standard Test Method for Water Immersion and Drying for Evaluation of Flood Damage Resistance
- ASTM E3369: Standard Specification for Determining the Flood Damage Resistance Rating of Building Materials
- ICC 1300: Standard for the Vulnerability-Based Seismic Assessment and Retrofit of One- and Two-Family Dwellings; and other applicable standards as needed. FEMA's building code-related resources can be found here: https://www.fema.gov/emergency-managers/risk-management/building-science/building-codes.

FEDERAL LAW ENFORCEMENT TRAINING CENTERS (FLETC)

The Federal Law Enforcement Training Centers (FLETC) reviewed OMB Circular A-119 and DHS Directive 078-04 and determined FLETC is currently not involved in or actively participating with standards development organizations to develop voluntary consensus standards. FLETC will continue to examine its programs to ensure compliance with DHS Directive 078-04.

MANAGEMENT DIRECTORATE (MGMT)

MGMT – Program Accountability and Risk Management (PARM)

The DHS Program Accountability and Risk Management (PARM) office is committed to implementing the provisions of OMB Circular A-119 and the National Technology Transfer and Advancement Act (NTTAA) by integrating industry standards into our acquisition program management policies and procedures. This approach ensures that our engineering, logistics, and sustainment processes across the entire acquisition lifecycle are efficient, effective, and aligned with best practices.

Key Activities:

1. Policy Development and Maintenance: PARM develops and maintains acquisition program management policies that emphasize the use of industry standards. This ensures that DHS acquisition programs leverage external expertise, promote interoperability, and minimize reliance on unique government standards.
2. Stakeholder Collaboration: PARM collaborates with DHS leadership, Component Acquisition Executives (CAEs), program managers, and other stakeholders to develop acquisition strategies that incorporate these standards. This collaboration ensures that standards are effectively utilized to maximize mission impact and uphold high standards of efficiency and effectiveness.
3. Transparency and Data Governance: PARM ensures data transparency and governance across the DHS acquisition enterprise. By making programmatic acquisition information readily available, empowering decision-makers with the insights needed for data-driven decision-making and strategic program execution.
4. Proactive Risk Management: PARM provides expertise in risk management, schedule development, systems engineering, and life cycle logistics planning. This proactive approach ensures that programs are structured for success from the outset, with industry standards playing a critical role in mitigating risks and accelerating capability delivery.
5. Workforce Development: PARM ensures that DHS acquisition programs have the right personnel with the necessary skills to deliver mission-critical capabilities. By advancing acquisition certification skills and promoting best practices, and we support the effective implementation of these standards across the workforce.

MGMT – Office of Biometric Identity Management (OBIM)

- Use of Voluntary Consensus Standards
  - Adoption of Biometrics Standards: OBIM applies widely recognized voluntary consensus standards for biometric modalities (e.g., fingerprints, facial images, iris images), including ANSI/NIST-ITL standards and ISO/IEC Joint Technical Committee (JTC) 1 standards.
  - Open, Consensus-Based Process: By using standards from ANSI/NIST and ISO/IEC, OBIM ensures these documents have been developed with multi-stakeholder input, balance of representation, and transparent procedures, per the definitions in OMB Circular A-119.
- Conformity Assessment & Interoperability
  - Testing & Certification: OBIM leverages recognized conformity assessment practices (e.g., accreditation of test labs, third-party testing) to confirm that biometric collection and matching solutions comply with adopted standards.
  - Data Exchange: Conforming to consensus standards helps OBIM systems securely exchange biometric data with partner agencies and foreign governments, reducing duplicate testing or custom processes.

- Participation in Standards Committees
  - Technical Expertise: OBIM regularly assigns subject-matter experts to committees within ANSI/NIST, ISO/IEC JTC 1/SC 37 (Biometrics), and other forums, representing DHS's interests and contributing operational insights.
  - Coordination: OBIM's involvement ensures emerging biometric standards account for current operational requirements and support advanced identity management solutions in a manner that protects privacy and civil liberties.
- Reporting & Documentation
  - Avoiding Government-Unique Standards: Consistent with the NTTAA, OBIM reports any instance in which a government-unique standard is used (which is rare), along with justification of why no voluntary consensus standard was suitable.
  - Retrospective Review: OBIM reviews references to older standards periodically and updates them, aligning with Circular A-119 guidance to keep standards current and relevant.
- Standards-Specific Information: OBIM's main webpage provides materials on interoperability and biometric standards work. From there, visitors can locate references to specific guidance, federal register notices, and standards activities.
  - Website: https://www.dhs.gov/obim
- MGMT-OBIM standards-specific websites:
  - Exchanging Biometric Data | Homeland Security
  - https://www.dhs.gov/obim

OFFICE OF IMMIGRATION DETECTION OMBUDSMAN (OIDO)

The Office of Immigration Detention Ombudsman (OIDO) adheres to the guidelines to use voluntary consensus standards wherever feasible. This approach allows OIDO to aim for eliminating redundant efforts, reduce costs, enhance efficiency, determine the right technology systems that meet internal and external needs, and ensure alignment with operational and statutory requirements. However, OIDO has not undertaken any new activities.

ODIO standards-specific websites:

- OIDO Publications | Homeland Security

OFFICE OF STRATEGY, POLICY, AND PLANS (PLCY)

Please find below a summary of OHSS's key activities related to standards participation, along with the requested information:

In FY24 OHSS managed operational standards for immigration domain and began to transition management of these standards to the DHS Chief Data Officer which was completed in FY25 Q1. OHSS also participated in the BGN FNC (U.S. Board on Geographic Names, Foreign Names Committee) in FY24 and FY25Q1 when this function was redesignated to DHS PLCY. This participation aligns with our department's mission and enhanced data-sharing and coordination across DHS to support cross component alignment of immigration data standards.

Government-Unique Standards (GUS) for FY24:

- DHS Immigration Data Standards (Published Date: FY2019): In continued use, ensuring uniformity and data quality across DHS components, particularly in the BGN FNC application of the Geopolitical Entity Naming Conventions (GENC) standard.
- DHS Standard Reference Tables (Published Date: FY2020): In continued use, supporting all DHS systems requiring aligned classifications, with particular relevance to the BGN FNC activities.
- DHS Statistical Standards Documentation (Published Date: FY2024): Newly adopted in FY24 to streamline statistical reporting across DHS components. Our data governance statistical standards

are working definitions for the reporting methodology of DHS operational data for statistical reporting.

OHSS has focused its efforts within the BGN FNC for FY24, ensuring that our contributions align with the goals of improving data interoperability and enhancing border governance across DHS agencies. We have not participated in broader standards committees outside of the BGN FNC this year.

BGN FNC Participation: OHSS has worked collaboratively within the BGN FNC to support the development of country data standards that promote consistency across immigration-related data systems within DHS components, including USCIS, ICE, and CBP.

OHSS does not have a Component Standards Executive (CSE).

SCIENCE AND TECHNOLOGY DIRECTORATE (S&T)

S&T – Systems Engineering and Standards Division (SES) – Standards (STN)

DHS S&T SES – STN is responsible for implementation of OMB Circular A-119 and NTTAA policies, procedures, and guidance across DHS as STN is led by the DHS Standards Executive/Senior Standards Advisor. STN facilitates participation in external standards development organizations (SDOs), coordinates said participation across DHS Components so that representatives are on the same page when participating in the SDOs and funds standards development projects as well as contracts to provide access to standards critical to the homeland security mission and operational component activities.
STN serves to integrate and coordinate standards across DHS via research and development, acquisition, strategic sourcing, grants, regulation and rulemaking for implementation into DHS operational technology and procedures. STN does this in multiple ways:

- Direct consensus standards committee participation (INCITS, ASTM, NFPA, AIA, OASIS)
- Sponsoring foundational research for consensus standards development (IEEE, ASTM, OASIS, IEC)
- Providing standards access services to DHS, and
- Leading the DHS Standards Council, a cross-Component group chartered to (1) support the responsibility of the Undersecretary of S&T to coordinate standards activities in the Department and (2) support the responsibilities of the agency Standards Executive as identified in OMB Circular A-119.

Link to S&T's standards-specific website: Systems Engineering and Standards | Homeland Security

S&T – Technology Centers Division (TCD)

Entry 1:

DHS S&T TCD participates in the INCITS/Biometrics Technical Committee. This committee develops standards to support interoperability and data interchange among biometric applications, systems, and common file frameworks. Areas of focus are Biometric Vocabulary Harmonization, Biometric Technical Interfaces, Biometric Data Interchange Formats, Technical Implementation of Biometric Systems, Biometric Performance Testing, and Cross -Jurisdictional/Societal Aspects of Biometrics. Standardization efforts encompass Governmental and Commercial applications, both domestic and international. Specific activity includes:

- S&T TCD serves as editor for ISO/IEC 19795-10: Biometric Performance Testing and Reporting – Part 10: Quantifying Biometric System Performance Variation Across Demographic Groups. This standard will help establish the appropriate guidance to help government and industry organizations that deploy biometric technology to perform appropriate testing and report results. Most recently, in October of 2024, this standard was published, after a four-year S&T TCD led effort, as an international standard. 19795-10 received unanimous approval for publication from all 26 participating member bodies of ISO/IEC SC37.
- S&T TCD participates in ISO/IEC JTC1/SC37 WG3 Ad-Hoc Working Group on Demographic

Variability of Quality Measures. This working group is tasked by SC37 with investigating demographic variability in the quality measures produced by the Open Source Face Image Quality (OFIQ) implementation of ISO/IEC 29794-5. Most recently, in December 2024, this working group published its unofficial findings as an ISO/IEC WG3 working item. A public copy was also made available.

- S&T TCD provides input to ISO/IEC 29794-5: Biometric Sample Quality – Part 5: Face image data. This standard establishes a uniform technique for quantifying the utility of a face biometric sample for matching, i.e. its "quality". Adopting such a standard should help organizations harmonize requirements for sample acceptance across locations and use cases. Most recently, in December 2024, this draft standard was submitted for a ballot to move to the publication stage of the ISO/IEC process.

Entry 2:

- S&T owns and manages the Project 25 Compliance Assessment Program (P25 CAP) for land mobile radios. P25 CAP, a voluntary program, allows suppliers to publicly attest to their products' compliance through P25 CAP testing at DHS-recognized laboratories. As proof, suppliers are required to submit Summary Test Report (STR) and Supplier's Declaration of Compliance (SDOC) documents. These documents are available on the Approved (Grant-Eligible) Equipment page. Project 25 is a suite of standards for Land Mobile Radio systems that is managed by the Telecommunications Industry Association (TIA). S&T uses these voluntary consensus standards published by TIA to develop test cases for P25 advertised equipment to ensure that it meets DHS Component needs.
- S&T is a member of the 3rd Generation Partnership Project. (3GPP) standards development organization. 3GPP is the SDO for mobile broadband standards globally. S&T participates in 3GPP working groups that are critical to DHS Component end users including SA1 and SA2 working groups. S&T has introduced multiple work study items that initiate the standards development process in support of DHS component end user needs.
- S&T participates in IEEE's Future Networks Technical Community (FNTC) which is focused on the successful development and deployment of 5G systems. The FNTC works with other IEEE working groups to contribute to IEEE standards to address a breadth of networking areas, including wireless, small-cell and machine-to-machine technologies, dynamic spectrum allocation, among others.
- S&T participates in IEEE's IoT Sensor Devices Advisory Committee. The focus of this committee is on network cybersecurity and interoperability for IoT sensor devices. Recently, the committee published a cybersecurity framework white paper to help address IoT sensor vulnerabilities and develop mitigation tactics.

S&T-TCD standards-specific websites: https://www.dhs.gov/science-and-technology/p25-cap

TRANSPORTATION SECURITY ADMINISTRATION (TSA)

The Transportation Security Administration (TSA) continues to support and fund the development of the industry supported/sponsor data format standard "DICOS" (Digital Imaging and Communication in Security) IIC 1 v05 through the governing body of NEMA (National Electrical Manufacturers Association). NEMA serves as both the facilitator for the development of the standard (with industry members participating in the development process) and publishing entity of the standard. This process and standard would be considered a "Voluntary Consensus" approach.

The TSA is actively involved in using the standard from The Institute of Electrical and Electronics Engineers (IEEE), PN42.59: *Standard for Measuring the Imaging Performance of Active Millimeter-Wave Systems for Security Screening of Humans*. This standard has beneficial practical uses for both test and evaluation as well as fleet management of fielded systems. The TSA and DHS S&T are working toward an automated software that utilizes the methodology of the standard allowing for widespread use. This process and standard would be considered a "Voluntary Consensus" approach.

The TSA utilizes the International Electrotechnical Commission IEC 63391:2024 ED1 *Active millimeter-wave systems for security screening of humans - General requirements*. Specifically, this standard applies to systems used to detect objects carried on the body of the individual being screened at a security checkpoint. It applies to systems that screen people using radiation in the range between 3 GHz and 150 GHz (100 mm to 2 mm). This document specifies the technical requirements, test methods, and signage of the active millimeter wave systems for security screening of humans. This process and standard would be considered a "Voluntary Consensus" approach.

The TSA contributes to the creation of the standard from IEEE P3395: *Standard for the Implementation of Safeguards, Controls, and Preventive Techniques for Artificial Intelligence (AI) Models*. This standard addresses Artificial Intelligence (AI) risks such as malicious use, AI race, organizational risks, and rogue AI's. The standard defines the relevant terminology, potential applications, and a risk abatement strategy for the behavior of AI models. The standard is in a developmental stage at the time of this writing and considered to be a "Voluntary Consensus" approach.

The TSA contributes to the creation of the standard from IEEE P3144: *Standard for Digital Twin Maturity Model and Assessment Methodology in Industry*. This standard defines a digital twin maturity model for industry, including digital twin capability domains and corresponding subdomains. This standard also defines assessment methodologies, including assessment content, assessment processes, and assessment maturity levels. The methodologies and output from this forthcoming standard have applicability toward the TSA desire to use synthetically created digital images which can be more cost effective than attaining real original digital images. Ultimately a digital twin capability could increase efficiency in test and evaluation and the ability to rapidly respond to emerging threats. The standard is in a developmental stage at the time of this writing and considered to be a "Voluntary Consensus" approach.

TSA standards-specific websites:

- https://www.nema.org/membership/nema-councils/imaging-and-communications-council/dicosusa
- PN42.59/D9.8, Feb 2024 - IEEE Draft Standard for Measuring the Imaging Performance of Active Millimeter-Wave Systems for Security Screening of Humans | IEEE Standard | IEEE Xplore
- IEC SC 45B Dashboard > Projects: Work programme, Up-to-Date Project plan, Publications, Maintenance cycle, Project files, TC/SC in figures
- https://standards.ieee.org/ieee/3395/11378/
- https://standards.ieee.org/ieee/3144/10837/

U.S. COAST GUARD (USCG)

The Coast Guard supports the provisions of OMB Circular A-119 and maintains one of the most robust standards programs in the Federal Government to meet our regulatory and research and development objectives. The Coast Guard remains committed to developing and adopting nationally and internationally recognized standards as a means to improve maritime safety, security, and environmental stewardship, and to promote the competitiveness of U.S. businesses in the global marketplace. Incorporating voluntary consensus standards helps the Coast Guard fulfill its regulatory functions more efficiently, develop the Government/industry partnerships crucial to our missions, and gain valuable public feedback necessary for effective policy development. The Coast Guard aggressively supports a broad range of standards development organizations through funding, active engagement, and membership on numerous committees. This vigorous participation helps us raise and resolve genuine issues related to public safety, national security, and preservation of the marine environment with our industry partners.

The Coast Guard participates in the DHS Standards Council and the Interagency Council on Standards Policy. We also regularly collaborate with the National Institute for Standards and Technology Standards

Directorate on training and conformity assessment issues. Visit our Director of Commercial Regulations & Standards website at for further information.

USCG standards-specific website: http://www.dco.uscg.mil/Our-Organization/Assistant-Commandant-for-Prevention-Policy-CG-5P/Commercial-Regulations-standards-CG-5PS

U.S. CITIZENSHIP AND IMMIGRATION SERVICES (USCIS)

U.S. Citizenship and Immigration Services (USCIS) has developed and is implementing data standards in its information technology systems. USCIS partnered with the DHS Immigration Data Integration Initiative (IDII) and the DHS Chief Data Officer Directorate (CDOD) to promote consistent data standards across the department. USCIS standards are maintained locally and made available via the Reference Data as a Service (RefDaaS) platform, USCIS SharePoint site, and a DHS-hosted instance of Collibra.

USCIS has 111 approved data standards, 23 of which are DHS-approved data standards.

U.S. SECRET SERVICE (USSS)

USSS uses several Voluntary Consensus Standards (ISO, ASTM, MIL SPEC, IBC Building Codes, etc.) to conduct the development, testing and procurement of equipment and technology and facilities. The USSS has participated in the development of Voluntary Consensus Standards. USSS does not maintain a standards-specific website. The USSS does not utilize Government Unique Standards.

Attachment 2:
List of Government-Unique Standards (GUS) currently (as of FY2024) in use by DHS Components

2. ***Please list the government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note that GUS which are still in effect from previous years should continue to be listed, thus the total number in your agency's report will include all GUS currently in use (previous years and new as of this FY).***

NOTE: List ALL government-unique standards you are currently using and indicate on your list which, if any, of the standards in use are new – your Component began using – in FY2024.

There are **no** government-unique standards that were used **in lieu of** voluntary consensus standards that are **new** in FY2024.

Attachment 2 lists all GUS used by DHS Components prior to and beginning in FY2024.

The following Components responded with no inputs for the FY2024 reporting timeframe:

- Office of Civil Rights and Civil Liberties (CRCL)
- Office of the Citizenship and Immigration Services Ombudsman (CISOMB)
- U.S. Immigration and Customs Enforcement (ICE)
- Office of Intelligence and Analysis (I&A)
- Office of the General Counsel (OGC)
- Office of Health Security (OHS)
- Office of Legislative Affairs (OLA)
- Privacy Office (PRIV)
- Management Directorate (MGMT), Office of Chief Information Officer (OCIO)

Name of the GUS (include associated number)	*Publication Date*	*New – Component began using – in FY2024? (Yes or No)*	*Name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate*	*Brief rationale on why the VCS(s) was not chosen.*
Technical Capability Standard for Handheld Instruments Used for the Detection and Identification of Radionuclides 500-DNDO-117250v2.0	November 2019	No	N/A	These Technical Capability Standards were developed in collaboration with NIST in accordance with Congressional direction in the Safe Port Act of 2006. They were specifically developed to supplement existing voluntary consensus standards and do not duplicate or contradict them.
Technical Capability Standard for Backpack Based Radiation Detection Systems 500-DNDO-119420v0.00	August 2013	No	N/A	"
Technical Capability Standard for Vehicle Mounted Mobile Systems 500-DNDO-119430v0.00	August 2013	No	N/A	"
Technical Capability Standard for Aerial Mounted Radiation Detection Systems 500-DNDO-119430v0.00	February 2017	No	N/A	"
Technical Capability Standard for Radiation Portal Monitor Systems with Energy Analysis Capability 500-CWMD-130170v0.00	November 2019	No	N/A	"
DHS Immigration Data Standards	FY2019	No		No VCS apply to these internal standards
DHS Standard Reference Tables	FY2020	No		No VCS apply to these internal standards

Name of the GUS (include associated number)	*Publication Date*	*New – Component began using – in FY2024? (Yes or No)*	*Name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate*	*Brief rationale on why the VCS(s) was not chosen.*
DHS Statistical Standards Documentation	FY2024	Yes		No VCS apply to these internal standards
MIL-R-21607E(SH), Military Specification, Resins, Polyester, Low Pressure Laminating, Fire-Retardant.	1990	No	None	NA
42S5, Screws, machine, cap and set, and nuts.	1999	No	None	NA
43B1, Bolts, nuts, studs, and tap-rivets (and materials for same).		No	None	NA
DDS 300-2, A.C. Fault Current Calculations	1988	No	None	NA
DDS 304-2, Electrical Cable, Ratings and Characteristics	1984	No	None	NA
DHHS Publication No. PHS 84-2024 The Ship's Medicine Chest and Medical Aid at Sea	1984	No	None	NA
EPA/600/R-10/146, Generic Protocol for the Verification of Ballast Water Treatment Technologies.	2010	No	None	NA
Federal Information Processing Standards Publication 55DC, Guideline: Codes For Named Populated Places, Primary County Divisions, And Other Locational Entities of the United States and Outlying Areas.	1987	No	None	NA

Name of the GUS (include associated number)	*Publication Date*	*New – Component began using – in FY2024? (Yes or No)*	*Name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate*	*Brief rationale on why the VCS(s) was not chosen.*
Federal Specification CCC-C-426 D, entitled "Cloth, Drill, Cotton."	1979	No	None	NA
Federal Specification CCC-C-443 E, entitled "Cloth, Duck, Cotton (Single and Plied Filling Yarns, Flat)."	1979	No	None	NA
Federal Specification L-P-375 C, "Plastic Film, Flexible, Vinyl Chloride."	1979	No	None	NA
Federal Specification L-S-300 B, entitled "Sheeting and Tape, Reflective: Nonexposed Lens, Adhesive Backing."	1979	No	None	NA
Federal Specification ZZ-H-451, Hose, Fire, Woven-Jacketed Rubber or Cambric-Lined, with Couplings, F.	None	No	None	NA
Federal Specifications (5) V-T-295E, Thread, Nylon.	1986	No	None	NA
Federal Standard 595C, Colors Used in Government Procurement.	2008	No	None	NA
Federal Standard No. 751a, Stitches, Seams, and Stitching.	1965	No	None	NA
Federal Standards and Test Methods (1) Method 4010, Length-Weight Relation; Thread; Yards Per Pound (m/kg).	1978	No	None	NA
Federal Standards and Test Methods (2) Method 4100,	1978	No	None	NA

Name of the GUS (include associated number)	*Publication Date*	*New – Component began using – in FY2024? (Yes or No)*	*Name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate*	*Brief rationale on why the VCS(s) was not chosen.*
Strength and Elongation, Breaking; and Tenacity; of Thread and Yarn; Single Strand.				
Federal Standards and Test Methods (3) Method 5804, Weathering Resistance of Cloth; Accelerated Weathering Method.	1978	No	None	NA
Federal Test Method Standard 141a, entitled "Paint, Varnish, Lacquer and Related Materials; Methods of Inspection, Sampling and Testing."	1979	No	None	NA
Federal Test Method Standard 370, "Instrumental Photometric Measurements of Retroreflective Materials and Retroreflective Devices."	1979	No	None	NA
Federal Test Method Standard No. 191a, Method 5304.1, Abrasion Resistance of Cloth, Oscillatory Cylinder (Wyzenbeek) Method.	1971	No	None	NA
In Federal Test Method Standard No. 191A	1978	No	None	NA
Method 5100, Strength and Elongation, Breaking of Woven Cloth; Grab Method.	1978	No	None	NA

Name of the GUS (include associated number)	*Publication Date*	*New – Component began using – in FY2024? (Yes or No)*	*Name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate*	*Brief rationale on why the VCS(s) was not chosen.*
Method 5132, Strength of Cloth, Tearing; Falling-Pendulum Method	1978	No	None	NA
Method 5134, Strength of Cloth, Tearing; Tongue Method	1978	No	None	NA
Method 5762, Mildew Resistance of Textile Materials; Soil Burial Method.	1978	No	None	NA
Method 5804.1, Weathering Resistance of Cloth; Accelerated Weathering Method	1978	No	None	NA
MIL-C-17415F, Military Specification, Cloth, Coated, and Webbing, Inflatable Boat and Miscellaneous Use.	1989	No	None	NA
MIL-C-19663D, Military Specification, Cloth, Woven Roving, For Plastic Laminate.	1988	No	None	NA
MIL-C-24640A—Military Specification Cables, Light Weight, Electric, Low Smoke, for Shipboard Use, General Specification for Supplement 1	2011	No	None	NA
MIL-C-24640A—Military Specification Cables, Light Weight, Electric, Low Smoke, for Shipboard Use, General Specification for Supplement 2	1995	No	None	NA

Name of the GUS (include associated number)	*Publication Date*	*New – Component began using – in FY2024? (Yes or No)*	*Name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate*	*Brief rationale on why the VCS(s) was not chosen.*
MIL-C-24643A—Military Specification Cables and Cords, Electric, Low Smoke, for Shipboard Use, General Specification for, Amendment 2	2011	No	None	NA
MIL-C-24643A—Military Specification Cables and Cords, Electric, Low Smoke, for Shipboard Use, General Specification for, Amendment 3	1996	No	None	NA
MIL-DTL-24640C with Supplement 1, Detail Specification Cables, Lightweight, Low Smoke, Electric, for Shipboard Use	2011	No	None	NA
MIL-DTL-24643C with Supplement 1A, Detail Specification Cables, Electric, Low Smoke Halogen-Free, for Shipboard Use, General Specification for	2011	No	None	NA
MIL-DTL-76E, Military Specification Wire and Cable, Hookup, Electrical, Insulated, General Specification for Supplement 1	2016	No	None	NA
MIL-HDBK-299(SH), Cable Comparison Handbook Data Pertaining to Electric Shipboard Cable	1991	No	None	NA
Military Specification MIL-C-17415 E, "Cloth, Coated, and	1979	No	None	NA

Name of the GUS (include associated number)	*Publication Date*	*New – Component began using – in FY2024? (Yes or No)*	*Name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate*	*Brief rationale on why the VCS(s) was not chosen.*
Webbing, Inflatable Boat and Miscellaneous Use"				
Military Specification MIL-C-43006 E, entitled "Cloth and Strip Laminated, Vinyl Nylon High Strength, Flexible."	1978	No	None	NA
Military Specification MIL-P-21929C, Plastic Material, Cellular Polyurethane, Foam-in-Place, Rigid (2 and 4 pounds per cubic foot)	1991	No	None	NA
Military Specification MIL-R-21607 D, entitled "Resins, Polyester, Low Pressure Laminating, Fire-retardant."	1979	No	None	NA
Military Specification MIL-R-21607E(SH), Resins, Polyester, Low Pressure Laminating, Fire Retardant	1990	No	None	NA
Military Specifications (6) MIL-T-43548C—Thread, Polyester Core: Cotton-, Rayon-, or Polyester-Covered.	1986	No	None	NA
Military Specifications (7) (7) MIL-T-43624A—Thread, Polyester, Spun.	1982	No	None	NA
MIL-L-24611, Life Preserver Support Package For Life Preserver, MK 4	1982	No	None	NA
MIL-P-17549D(SH), Military Specification, Plastic	1981	No	None	NA

Name of the GUS (include associated number)	*Publication Date*	*New – Component began using – in FY2024? (Yes or No)*	*Name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate*	*Brief rationale on why the VCS(s) was not chosen.*
Laminates, Fibrous Glass Reinforced, Marine Structural.				
MIL-P-21929B, Military Specification, Plastic Material, Cellular Polyurethane, Foam-in-Place, Rigid (2 Pounds per Cubic Foot).	1991	No	None	NA
MIL-R-21607E(SH), Military Specification, Resins, Polyester, Low Pressure Laminating, Fire-Retardant.	1990	No	None	NA
MIL-R-24719(SH), Military Specification, Resins, Vinyl Ester, Low Pressure Laminating.	1989	No	None	NA
MIL-R-7575C, Military Specification, Resin, Polyester, Low-Pressure Laminating	1966	No	None	NA
MIL-W-76D, Military Specification Wire and Cable, Hook-Up, Electrical, Insulated, General Specification for Amendment 1	2003	No	None	NA
National Bureau of Standards Special Publication 440—Color, Universal Language and Dictionary of Names.	1976	No	None	NA

Name of the GUS (include associated number)	*Publication Date*	*New – Component began using – in FY2024? (Yes or No)*	*Name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate*	*Brief rationale on why the VCS(s) was not chosen.*
Publication No. (PHS) 84, The Ship's Medicine Chest and Medical Aid at Sea.	No date.	No	None	NA
Special Pub. 440 (SD Cat. No. C13.10:490), "Color: Universal Language and Dictionary of Names."	1976	No	None	NA
Standard Alphabets for Highways Signs	1966	No	None	NA
TSO-C13d, Federal Aviation Administration Standard for Life Preservers	1983	No	None	NA
Type Accepted Category 1, 406 MHz EPIRB, Emergency Position Indicating Radiobeacon	No date.	No	None	NA

SDO Name
3nd Generation Partnership Project
Alliance for Telecommunications Industry Solutions
American Academy of Forensic Sciences, Academy Standards Board
American Boat and Yacht Council
American Bureau of Shipping
American National Standards Institute
American Society of Civil Engineers
American Society of Mechanical Engineers
American Welding Society
ASTM International
Comite International Radio-Maritime
Global Maritime Distress and Safety System
GSM Association
Institute of Electrical and Electronics Engineers
Inter-American Telecommunication Commission of the Organization of American States
International Association of Marine Aids to Navigation and Lighthouse Authorities
International Code Council
International Committee for Information Technology Standards
International Electrotechnical Commission (U.S. National Committee)
International Hydrographic Organization
International Organization for Standardization
International Telecommunications Union, Telecommunications Sector
Internet Engineering Task Force
National Association of State Boating Law Administrators
National Electrical Manufacturers Association
National Fire Protection Association
National Information Exchange Model
National Institute of Standards and Technology
National Marine Electronics Association
Open Radio Access Network Alliance
Organization of Scientific Area Committees for Forensic Science
Radio Technical Commission For Maritime Services
Society of Automotive Engineers
Society of Naval Architects and Marine Engineers
Telecommunications Industry Association
U.S. Board on Geographic Names
Underwriters Laboratories
Wi-Fi Alliance
Wireless Broadband Alliance
World Radiocommunication Conference

SDO Abbreviation
3GPP
ATIS
AAFS/ASB
ABYC
ABS
ANSI
ASCE
ASME
AWS
ASTM
CIRM
GMDSS
GSMA
IEEE
CITEL
IALA
ICC
INCITS
IEC
IHO
ISO
ITU - T
IETF
NASBLA
NEMA
NFPA
NIEM
NIST
NMEA
O-RAN
OSAC
RTCM
SAE
SNAME
TIA
BGN
UL
WFA
WBA
WRC

Department of Housing and Urban Development (HUD) Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

Standards are used to guide the work of the grantees and other HUD supported agencies in providing quality housing and improvements in America's communities. Standards support the achievement of the HUD mission by our state and local partners. In most cases, HUD and our partners use standards developed by or in conjunction with other related users, such as model building codes developed for and adopted by communities nationwide. Because there are virtually no differences between HUD-assisted and market-based construction and development, use of standards such as building codes that are developed through a public process for the entire design and construction industry are relevant and appropriate. Because of the way HUD supports local housing efforts, the communities use the building codes that have been adopted at the state or local level for both the HUD-assisted projects as well as the broader construction market. In rare cases, HUD is responsible for the standards, as it is the case with the Government Standard: 24 CFR 3280 – Manufactured Home Construction and Safety Standards. As mandated in legislation, HUD proceeds through the federal rulemaking process as it publishes and enforces the construction standards for manufactured housing, which is maintained through a consensus standards development process through recommendations from the Manufactured Housing Consensus Committee, a Federal Advisory Committee.

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Start by reviewing Table 1: Current Government Unique Standards FY2023.

To add a new GUS, please include:

1. **The name of the GUS;**
2. **The name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate;**
3. **A brief rationale on why the VCS(s) was not chosen.**

To rescind a GUS, (if they are no longer in use or have been replaced by a voluntary consensus standard) please:

1. **Cross out the standard from Table 1.**
2. **Add a 'Rationale for Rescinding' explaining why the standard was rescinded.**

Please record below the total number of GUS currently in use. This number should include the previous total plus any new GUS added, and minus any GUS rescinded:

Current total GUS: 1

Table 1: Current Government Unique Standards FY2024

(1) Government Unique Standard
24 CFR 3280 – Manufactured Home Construction and Safety Standards [Incorporated: 2000]

Voluntary Standard
ANSI A119.1 – Recreation Vehicles and NFPA 501C – Standard on Recreational Vehicles

Rationale
HUD-Unique Manufactured Home Construction and Safety Standards. HUD was required by the Manufactured Housing Construction and Safety Standards Act of 1974, as amended, to "establish Federal construction and safety standards for manufactured homes and to authorize manufactured home safety research and development".

Updated FY2024: On September 16, 2024, HUD published the "Manufactured Home Construction and Safety Standards" final rule (MHCSS 4th and 5th Sets) in the Federal Register. This final rule amends the Federal Manufactured Home Construction and Safety Standards (MHCSS or the Construction and Safety Standards) by adopting most of the fourth and fifth groups of recommendations made to HUD by the Manufactured Housing Consensus Committee (MHCC). This rule also amends the Manufactured Home Procedural and Enforcement Regulations, the Model Manufactured Home Installation Standards, and

the Manufactured Home Installation Program regulations. This Final Rule includes 90 new and updated incorporation by Reference Standards for various materials, components, and systems used in the production of manufactured housing. The MHCC prepared and submitted to HUD its fourth and fifth groups of recommendations to improve various aspects of the MHCSS. HUD reviewed those proposals and drafted a number of proposed revisions to the MHCSS and associated regulations. On July 19, 2022, HUD published a proposed rule detailing these revisions to provide the public an opportunity to comment. The comment period closed on September 19, 2022. This final rule adopts HUD's proposed revisions based upon the MHCC's fourth and fifth groups of recommendations with some minor revisions made in response to the public comments.

Department of the Interior (DOI) Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

For all programs under the authority of the **Assistant Secretary of Indian Affairs (AS-IA)**, including The Bureau of Indian Affairs (BIA) and The Bureau of Indian Education (BIE), pursuant to the Indian Affairs Manual, Part 20, Chapter 5 https://www.bia.gov/sites/bia.gov/files/assets/public/raca/manual/pdf/idc-021344.pdf, the IA-PMS is the system of record for reporting and analyzing data collected on Indian Affairs (IA) programs. The system consists of performance measures as defined by the 1993 Government Performance and Results Act (GPRA); measure definition templates to facilitate consistent reporting; and performance targets for monitoring overall program success. IA uses the IA-PMS to record quarterly and annual data on bureau-specific and strategic plan (SP) performance measures. Central Office programs, regions, and agencies are required to report on performance measures in a timely and accurate manner and are responsible for the validation and verification (V&V) of all data reported in the IA-PMS. The collection of GPRA performance information is a collaborative effort. The collection of timely, accurate, and appropriate performance information is essential to successful performance management of federal Indian and Alaska Native programs. Tribal governments or tribal organizations operating IA programs under grants, contracts or compacts authorized by the Indian Self-Determination and Education Assistance Act, as amended (25 U.S.C. §450 et seq.) are required to comply with policies and procedures if required by statute or regulation.

The Bureau of Trust Funds Administration (BTFA) formerly known as the Office of the Special Trustee for American Indians, manages the financial assets of American Indians held in trust by the Department of the Interior. The BTFA disburses more than $1 billion annually and has more than $8 billion under active day-to-day management and investment on behalf of Tribes and individuals. The BTFA manages the financial assets in accordance with applicable financial laws and regulations. BTFA also follows financial accounting standards such as those issued by the Financial Accounting Standards Board (https://www.fasb.org/home) and auditing of financial statements occur in accordance with the Generally Accepted Government Auditing Standards issued by the U.S. Government Accountability Office (https://www.gao.gov/yellowbook).

The Bureau of Indian Affairs (BIA) In Fiscal Year (FY) 2024, the Bureau of Indian Affairs (BIA) published the Bureau Data Governance Policy, specifically in Part 78, Chapter 2 in the IAM (Indian Affairs Manual), which is accessible on the BIA Directives website: https://www.bia.gov/policy-forms/manual. In accordance with the Open Government Data Act, BIA is committed to managing Open Data that adheres to the Department of the Interior's metadata standards, specifically the US Standard Data Catalog (DCAT) version 1.1. All BIA Open Data products can be found at the following link: https://opendata-1-bia-geospatial.hub.arcgis.com/. Additionally, BIA Open Data is cataloged in the Federal Catalog at Data.gov and Geoplatform.gov, aligning with the Foundations for Evidence-Based Policymaking Act. Notably, BIA Open Data has achieved an impressive 96.3% score on the F.A.I.R. principles (Findable, Accessible, Interoperable, and Reusable).

The Bureau of Land Management (BLM) supports its multiple-use and sustained yield mission by utilizing a variety of Voluntary Consensus Standards (VCS) to manage public lands and maximize opportunities for commercial, recreational, and conservation activities. The BLM's policy on data standards is described in BLM Handbook 1283 – Data Administration and Management and practices follow the Department of Interior Information Resource Management policy (Series: 17-INFORMATION RESOURCES MANAGEMENT (Parts 375-387), OMB Circular A-16: Coordination and Surveying, Mapping, and Related Spatial Data Activities as amended by the Geospatial Data Act of 2018, OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and Conformity Assessment Activities, and OMB Circular A-130: Managing Information as a Strategic Resource).

BLM-specific data standards provide a uniform and documented system for collecting and maintaining geospatial datasets supporting our Geospatial Business Platform and BLM business workflows. Use of metadata standards established by the Federal Geographic Data Committee (FGDC) allow for wide-reaching public availability through https://data.gov/ utilizing the DOI's Enterprise Data Inventory.

BLM actively participated in several interagency projects that required VCS to accurately account for BLM actions and report results. The Federal Accounting Standards Advisory Board (FASAB) Statement of Federal Financial Accounting Standards (SFFAS) 59: Accounting and Reporting of Government Land required BLM to ensure consistent accounting treatment and reporting for federal land to increase transparency, comparability, consistency, and reliability of land information. BLM submitted an Agency Financial Report (AFR) to convey our commitment to sound financial management and stewardship of public funds. BLM had to standardize a process that reclassified General Property Plant and Equipment (G-PP&E) land and permanent land rights as a non-capitalized asset and define Stewardship Land (SL) using three sub-categories: Operational Land, Commercial-use Land, Conservation and Preservation Land. Objectives of this standard approach include determining predominant use by sub-category of federal lands, providing land information for inclusion in the BLM's financial reporting deliverables to the DOI, and striving for consistent reporting of BLM acreage in both the FASAB and Public Land Statistics data.

The Modernizing Access to Our Public Land Act (MAPLand Act) directed the Department of Interior, USDA Forest Service, and U.S. Army Core of Engineers to work together to develop, maintain, and consistently share with the public standardized and interoperable geospatial data relating to public access to Federal lands and water for outdoor recreation. BLM has taken a very hands-on approach to influencing the geospatial data standards that come out of sub-groups representing easements for access across private lands, roads, trails, and open recreational use areas, recreational shooting and hunting, general recreation opportunities.

BLM also contributes to VCS maintained by other agencies. Examples include:

- Bridge assessments are inspected and reported according to the US Department of Transportation Federal Highway Administration National Bridge Institute's Recording and Coding Guide;
- Heritage resource surveys and reports are submitted according to State Historical Preservation Office data standards (State of Idaho example);
- Timekeeping, financial, business, collections and billing (FBMS and CBS) data entry and management follows OPM data standards;

- Sensitive species (plants and wildlife) observations are collected, maintained and reported according to State Fish/Game/Wildlife maintained data standards (Idaho Fish and Game example);
- Water quality sampling data are collected, reported and maintained according to EPA standards.

The Bureau of Reclamation (BOR) leads and participates in standards activities across the enterprise. The following highlight standards involvement in various programs and geographic locations. Our Technical Service Center (TSC) showcases its National Codes & Design Standards page (https://www.usbr.gov/tsc/techreferences/industrystandards-non_rec/nationalcodes-ds_non-rec.html), illustrating how our design activities must be performed in accordance with established Reclamation design criteria and standards, and approved national design standards. National codes and design standards provide a consistency of standard practice across a wide variety of engineering disciplines. The adoption of national codes and standards reduces the effort to develop and maintain Reclamation standards. Reclamation designers use the most current edition of national codes and design standards consistent with Reclamation design standards. This list identifies primary national codes and design standards used by Reclamation designers but does not include all codes, standards, and guidelines that may be referenced by these documents. Reclamation design standards may include exceptions to requirements of national codes and design standards.

The North American Electric Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) enforce standards necessary to maintain the reliability of the interconnected electric power grid which includes BOR facilities. BOR participates in the NERC and WECC committees and standard drafting teams to provide subject matter expertise and guide the development of the technical aspects of the NERC or WECC standards. BOR is required to maintain compliance with the standards; however, there are times when compliance with the standards is not congruent with the mandates placed on BOR. Participation in the development of the standards allows BOR to provide direct influence at the crucial times in the development of the standards to align the drafted requirements with the mandates thereby ensuring BOR's ability to maintain compliance and the reliability of BOR facilities. Our Hydropower standards program is described here: https://www.usbr.gov/power/data/fist_pub.html.
Finally, Reclamation's Information Resources Office (IRO) programmatically adopts and uses voluntary consensus standards through its affiliation with various standards bodies. The energy standard for data centers (American National Standard 90.4) was initiated to promote energy efficient design of data centers, a rapidly expanding and energy-intensive category among buildings in the United States and worldwide. The IRO utilizes the Information Technology Infrastructure Library (ITIL) framework, which is a set of industry best practices and standards for IT service management and delivering IT services. In addition, IRO focuses on integration of several ISO standards through the Control Objectives for Information and Related Technologies (COBIT) framework for the management, organization, development, and implementation strategies for IT governance and includes ISO 9000 (Quality Management); ISO 15504 (Process assessment); ISO 20000 (Information Technology); ISO 27000 (Information Security); ISO 31000 (Risk Management); ISO 38500 (IT Governance).

The Bureau of Safety and Environmental Enforcement (BSEE) has a long history of using industry standards to supplement and enhance its regulatory program. As of December 2020, BSEE has incorporated by reference 125 industry standards in its regulations (see 30 CFR § 250.198). BSEE's Standards Development Section (SDS) is responsible for tracking, engaging in, and advising on, industry standards relevant to BSEE's mission. The SDS coordinates SMEs from the offshore industry and BSEE to

work together through the SDOs to develop standards as required by the NTTAA. The SDS is currently monitoring 10 different SDOs in the development of 125 standards presently Included by reference (IBR). There are different SDOs that develop industry standards such as the American Society of Mechanical Engineers (ASME) or the American Petroleum Institute (API). The SDS also engages in the development of other standards in addition to the 125 incorporated standards if it is deemed a priority by BSEE. The 10 SDOs whose standards are IBR are API, ASME, NACE, ASTM, AWS, AGA, IEC ISO, and the Center for Offshore Safety.

Standards that significantly advance safety and environmental stewardship are a priority. The work of the SDS has significantly advanced the BSEE mission. Examples of advancing the BSEE mission include an addendum on quality control for supply chains written for API Specification Q1, a new performance-based approach to developing SEMS using API RP 75, a high-pressure high-temperature equipment design document, API 17TR8, and a bolting material guidance document, API 21TR1, to mitigate future bolting failures identified in the BSEE QC FIT report.

The federal regulations governing the development of offshore wind facilities, 30 Code of Federal Regulations (CFR) § 585, were published in 2009. These regulations outline the development process for an offshore wind project in U.S. waters. However, because the U.S. offshore wind industry was less mature in 2009, adequate U.S. standards did not exist. For this reason, no specific standards were incorporated by reference into 30 CFR § 585. Rather, the regulations prescribe that "best practices" be used, with the expectation that these practices would evolve as the U.S. offshore wind industry gained experience. Such best practices are the foundation upon which offshore wind standards will be based.

In addition to the above approach to standards, BSEE refers to the Public Petroleum Data Model (PPDM) for standard design patterns in designing custom databases for regulatory functions related to offshore oil and gas and BSEE also follows FGDC standards where applicable for GIS functions and geospatial data applications.

The above information is from the Standards Development section of BSEE's website (Standards Development Section | Bureau of Safety and Environmental Enforcement (bsee.gov))as it directly addresses this data call.

The Office of Natural Resources Revenue (ONRR) collects, accounts for, and verifies natural resource and energy revenues due to States, American Indians, and the U.S. Treasury. ONRR manages financial assets in accordance w/ laws, regulations, and financial and accounting standards issued by The Federal Accounting Standards Advisory Board fasab.gov. ONRR conducts audits following Government Auditing Standards Yellow Book | U.S. GAO to determine company compliance with lease terms, laws, and regulations.

ONRR uses the Professional Petroleum Data Management Association Well Identification (ppdm.org) for US Well Number Standards and the Federal Information Processing Series (FIPS) for U.S. state and county codes: INCITS 31-2009 & INCITS 38-2009.

ONRR's public websites are managed according to the 21st IDEA Act and the U.S Website Design Standards. (USWDS)

The U.S. Fish and Wildlife Service (FWS) utilizes a variety of Voluntary Consensus Standards (VCS) in managing a wide array of management and resource data and information in support of its mission. The standards are embedded in multiple software, hardware, services, and systems. The FWS's policy on data standards is described in the FWS Manual Chapter 274 FW 2: Establishing Service Data Standards (https://www.fws.gov/data-standards). It follows the Department of Interior Information Resource Management policy (Series: 17-INFORMATION RESOURCES MANAGEMENT (Parts 375-387) on https://www.doi.gov/elips/browse), the OMB Circular A-130: Management of Federal Information Resources (https://www.federalregister.gov/documents/2016/07/28/2016-17872/revision-of-omb-circular-no-a-130-managinginformation-as-a-strategic-resource), and OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and Conformity Assessment Activities.

The FWS data standards are found here: https://www.fws.gov/data-standards. Of particular note, is the VCS for the Classification of Wetlands and Deep-water Habitats of the United States. The Service's definition and classification system provides standardization of concepts and terms used to describe the biological limit of wetland types found in the United States, and is used nationwide by many Federal, State, and local agencies as part of the management of their wetland resources.

The Data Science Committee has created a working group tasked with reviewing FWS data standards to bring them into compliance with Service policy 274 FW 2 listed above. All FWS standards will be assigned a data standard steward, assessed for relevancy, determine the frequency and process to keep theses updated to industry standards.

The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations. The NPS uses a variety of standards to support bureau operations including many governments unique standards (GUS) that do not have a similar voluntary consensus standard (VCS). NPS practices follow the Department of Interior Information Resource Management policy (Series: 17-INFORMATION RESOURCES MANAGEMENT (Parts 375-387) NPS Director's Order 11B Ensuring Quality of Information Disseminated by the NPS, OMB Circular A-16: Coordination and Surveying, Mapping, and Related Spatial Data Activities as amended by the Geospatial Data Act of 2018, OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and Conformity Assessment Activities, OMB Circular A-130: Managing Information as a Strategic Resource.

NPS uses NPS Spatial Data Standards, Federal Camping Data Standard, Integrated Taxonomic Information System, EPA Pesticide Product Information System (PPIS), and EPA Water Quality Exchange (WQX). Library related activities use the Machine Readable Cataloging (MARC) standard, Library of Congress Subject Headings controlled vocabulary, Faceted Application of Subject Terminology (FAST), Library of Congress Classification standards, and Dewey Decimal Classification. Data is also shared via Application Programming Interface (APIs) that follow the industry led OpenAPI specification. The Modernizing Access to Our Public Land Act (MAPLand Act) directed DOI, Forest Service, and U.S. Army Core of Engineers to work together to develop, maintain, and consistently share with the public standardized and interoperable geospatial data relating to public access to Federal lands and water for outdoor recreation. NPS has participated in developing the geospatial data transfer standards for five thematic layers including easements for access across private lands, roads, trails, and open recreational

use areas, and recreational shooting and hunting. The NPS also maintains metadata for spatial and geographic information according to the standards established by the Federal Geographic Data Committee (FGDC) as well as metadata that meets project open data requirements including the Department of Interior metadata US Standard Data Catalog (DCAT) v1.1. that enables wide-reaching public availability through https://data.gov/ utilizing the DOI's Enterprise Data Inventory aligning with the Foundations for Evidence-Based Policymaking Act. NPS public websites are managed according to the 21st IDEA Act and the U.S Website Design Standards (USWDS).

The U.S. Geological Survey (USGS) employs a variety of Voluntary Consensus Standards (VCS) to manage a wide range of scientific data and information that support the mission of the Bureau. The USGS Survey Manual Chapter 502.2 - Fundamental Science Practices: Planning and Conducting Data Collection and Research addresses data and metadata standards: "The data collected, and the techniques used by USGS scientists conform to or reference national and international standards and protocols if they exist and when they are relevant and appropriate. For datasets of a given type, and if national or international metadata standards exist, the data are indexed with metadata that facilitate access and integration."
Longstanding examples of VCS in use across USGS can be found on the USGS Data Management Website. For metadata describing digital and physical data, these include:

- the International Organization for Standardization (ISO) 19115 suite of standards for digital geospatial metadata
- the FGDC Content Standard for Digital Geospatial Metadata for digital geospatial metadata
- the Climate, and Forecast (CF) Metadata Conventions for describing and sharing NetCDF data files.
- the international DCAT catalog standard, and its Federal profile, DCAT-US, are the basis for the data model for the public-facing USGS Science Data Catalog and its harvest endpoint for the Federal data catalogs; USGS is now in the process of extending its implementation of DCAT 3 and its new profile, DCAT-US 3, to also serve as the foundation of the new data model for our largest USGS data repository, ScienceBase.
- Digital Object Identifiers (DOIs), the international standard for ensuring persistent, unique, and resolvable access to digital resources, are broadly used to safeguard continuous public access to USGS scientific publications (via CrossRef DOIs), data and software releases (via DataCite DOIs), and other research outputs.
- globally recognized International Generic Sample Numbers (IGSNs) are now being introduced for our many collections of physical samples (including rock cores and cuttings, sediments, bore hole wells, and biological specimens). These globally unique, persistent and citable identifiers allow physical samples used or consumed in the course of scientific research to be tied to provenance details including their original location, method by which they were collected, history of curation and ownership, scientific identification and classification, and other important details.

Dataset-level standards in wide use include:

- Darwin Core, an open-access biological standard for documenting and sharing species occurrence data across datasets

- the U.S. National Vegetation Classification Standard, a common classification vocabulary for identifying and mapping vegetation across the United States to support data interoperability

As a major federal research agency, USGS has also led or co-led development of many standards that have effectively evolved into voluntary consensus standards in wide use across federal and non-federal spheres. USGS continues to play a leadership role in their evolution and management, in close coordination with other federal, state, local, academic, non-profit, and private sector stakeholders. These standards include:

- Integrated Taxonomic Information System (ITIS): A standardized taxonomic nomenclature reference is a prerequisite for biological data sharing, integration, and comparison among different agencies and organizations. Since 1996, ITIS has worked to consolidate federal efforts to define and provide access to standardized, authoritative, and publicly accessible species in support of interoperable, high quality biological data. Ten Federal, North American, and non-governmental partners work collaboratively with USGS to oversee the quality and integrity of taxonomic data in ITIS, and to further its technical development.

- Watershed Boundary Dataset (WBD): Hydrologic unit boundaries in the WBD are determined on the basis of topographic, hydrologic, and other relevant landscape characteristics without regard for administrative, political, or jurisdictional boundaries. The WBD seamlessly represents hydrologic units at six required and two optional hierarchical levels mapped at a minimum of 1:24,000-scale in the United States, except for in Hawaii, the Caribbean, and the Pacific Islands, which are at 1:25,000-scale, and in Alaska, where the data range from the minimum required 1:24,000-scale to 1:63,360-scale. Hydrologic units in the WBD provide a standardized base for water-resources organizations to locate, store, retrieve, and exchange hydrologic data; to index and inventory hydrologic data and information; to catalog water-data acquisition activities; and to use in a variety of other applications. Leadership of the WBD is the responsibility of USGS and the USDA Natural Resources Conservation Service, with collaboration from a network of State stewards, partners, and users on requirements, use, review, and management.

- Geologic Map Schema (GeMS): GeMS is the standard schema for geologic map publications funded by the U.S. Geological Survey's National Cooperative Geologic Mapping Program (NCGMP). Its design specifies encoding the content analogous to that contained in a traditional geologic map published by the USGS and by State Geological Surveys. The design is focused on the publication, transfer, and archiving of map data and less on the creation of map data, the visual representation of map data, or the compilation of data from many different map sources; it is foundational to the development of multiple-map databases, including the National Geologic Map Database. GeMS was developed and is maintained collaboratively by the USGS and more than twenty State Geological Surveys.

- Geographic Names Information System (GNIS): was developed by the USGS in cooperation with the U.S. Board on Geographic Names (BGN), which maintains cooperative working relationships with State Names Authorities to standardize geographic names for Federal use. GNIS contains information about the official names for places, features, and areas in the 50 states, the District of Columbia, and the territories and outlying areas of the United States, including Antarctica.

GNIS is the geographic names component of The National Map. GNIS contains records for approximately one million geographic names in the United States, including populated places, lakes, streams, summits, valleys, and ridges. Federal, tribal, state, local, and non-governmental data partners continuously submit new features and edits to existing features in the Geographic Names Information System (GNIS). Additions and changes are validated by the staff and made available on the Search Domestic Names application.

Consensus standards for file formats in wide use include:

- Open geospatial formats such as Geospatial PDF
- Open Geospatial Consortium (OGC) standards including Web Map Service, Web Coverage Service, Web Feature Service, and OGC GeoPackage
- GeoJSON, GeoTIFF, and Cloud-optimized GeoTIFF
- GML Web Feature Service
- NetCDF

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

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To add a new GUS, please include:

1. **The name of the GUS;**
2. **The name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate;**
3. **A brief rationale on why the VCS(s) was not chosen.**

Current total GUS =0

Table 1: Current Government Unique Standards FY2024

No new uses of GUS were initiated within DOI during FY 2024.

Department of Justice (DOJ) Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

Led by the Attorney General, the Department of Justice (DOJ) is comprised of more than 40 separate component organizations and has approximately 115,000 employees who carry out the missions of the Department. While the DOJ's headquarters are in Washington, D.C., it conducts most of its work in field locations throughout the country and overseas. The mission of the Department of Justice is to uphold the rule of law, to keep our country safe, and to protect civil rights.

DOJ uses standards wherever reasonable, recognizing the importance of Voluntary Consensus Standards (VCS) in achieving its mission goals. Implementation of VCS in both Departmental systems and those funded by Departmental grants:

- Improves collaboration and cooperation with criminal justice partners and the private sector;
- Makes services, products, and systems development more efficient (including cost and/or implementation time savings);
- Ensures equipment and systems are of the highest quality, safe, and effective as well as compatible and interoperable;
- Supports innovation, free and fair competition, commerce or trade while avoiding duplication of private sector activities;
- Ensures the results of analysis are unbiased and scientifically valid;
- Provides validation that facilities are operating safely, effectively, and are managed in accordance with sound principles;
- Enables reuse of technical tools to support multiple projects, reduce dependency on custom solutions; minimize project risk, and reduce dependency on a too specialized workforce;
- Provides an opportunity to pull communities-of-interest together;
- Allows commercial industry to reduce product development costs and pass those cost savings on to the Department;
- Improves procurements, contracting, and grant making functions.

The following summarizes some of DOJ's standards and conformity assessment activities in 2024, demonstrating the Department's active participation in improving and applying standards to deliver the mission.

Initiatives at the Department level include:

- **Deputy Attorney General's eLitigation Modernization Effort:** This cross-component commission supported work to assess the development and use of consensus standards across litigation activities to support modernization, compliance and workforce development efforts. These efforts are based in part of federal statutes and authorities, industry standards and Department policies and practices.

- **Emergency Technology Board (ETB):** Chaired by the Department's Chief Artificial Intelligence Officer (CAIO), the ETB was established pursuant to Office of Management and Budget directive and Department policy, and is tasked with developing policy and regulations in connection with DOJ procurement and use of technologies containing Artificial Intelligence (AI) capabilities, and

other emerging technologies. The ETB is currently working on implementing the provisions of M-25-21, *Accelerating Federal Use of AI through Innovation, Governance, and Public Trust* and M-25-22, *Driving Efficient Acquisition of Artificial Intelligence in Government*.

- **DOJ Facial Recognition Technology Working Group (FRT WG):** This Working Group was charged with identifying operational and administrative uses of FRT across the Department and developing standards for such use in line with National Institute of Standards & Technology accepted principles, industry best practices, and federal law. The FRT WG produced a DOJ Interim Policy on the use of FRT. This policy underwent subsequent discussion and revision in FY2024.

- **DOJ Data Brokers Working Group (DBWG):** This Working Group was tasked with evaluating the Department's procurement and use of commercially available information (CAI) and ensuring CAI is lawfully obtained with oversight, accountability, equity, and transparency. The Working Group contributed substantially to the creation of Department policy governing the acquisition and use of commercially available information.

The Department's Office of the Chief Information Officer leads several efforts in support of the development and use of Voluntary Consensus Standards and Conformity Assessment Activities, including:

- **ISO 20000-1 (Service management) and 27001 (Information Security) Standards:** The Department actively applied both standards in our delivery of IT and information security services including formal external certification body audits to maintain ongoing ISO certification. The original certifications were obtained in 2015, and upgraded to ISO 20000-1:2018, and ISO 27001:2022. Although our certifications have been forfeited due to budgetary impacts in April 2025, we maintain operational activities and remain ISO compliant. Application of these standards ensures the continuous evaluation of service performance and use of standard practices as defined by criteria well-recognized across industry and government.

- **Data Governance Board (DGB)**: Chaired by the Chief Data Officer, the DGB addresses DOJ data management standards, priorities, policies, and practices. The Board serves as the leader for coordinating and facilitating implementation of Department-wide processes and standards, and for addressing common issues affecting Component data programs and resources. The DGB includes members from the following Components: Bureau of Alcohol, Tobacco, Fires and Explosives (ATF), Federal Bureau of Prisons, Civil Division, Criminal Division, Civil Rights Division, Drug Enforcement Administration (DEA), Environment and Natural Resources Division, Executive Office for Immigration Review, Executive Office for United States Attorneys, Federal Bureau of Investigation (FBI), Justice Management Division (JMD), Office of Inspector General, OJP, and United States Marshals Service (USMS). The DOJ Data Governance working groups that encourage participation from Components are as follows:
    - **Data Architecture Working Group (DAWG):** Developed consistent data governance standards within the DOJ across several key areas. This includes in the procurement and use of Commercially Available Information (CAI), data lexicons, Data Management plans, and other areas of alignment. These standards and assessment relate to the DOJ Data Governance Board oversight efforts and incorporate industry data standards, federal statutes and other authorities.
    - **DOJ Geospatial Community of Interest (GCOI)**: Chaired by DEA, FBI, and JMD, the GCOI met quarterly and continued raising awareness on critical geospatial topics and activities pertaining to standards. The GCOI provided oversight for implementing geospatial standards and continued progress in meeting the Geospatial Data Act requirements, including the distribution of job-aids that refer to open international

standards, metadata standards implementation, and standards development to support enhanced interoperability and equitable access to all DOJ geospatial data users.
    - **Artificial Intelligence Community of Interest (AI COI):** Unites DOJ employees who are interested in accelerating the thoughtful adoption of AI, the coordination of AI initiatives, the implementation of Department-wide AI processes and standards, and the discussion of common AI issues or concerns among Components.
    - **Identity, Credential, and Access Management (ICAM) Working Group:** Focused on the Identity, Credential and Access Management capabilities of the Department's Data Strategy.

- **DOJ Internet of Things (IoT) Working Group**: Aligns cross component compliance with IoT Act of 2020 and OMB M-25-04 requirements and NIST standards. Gather critical insights and information on the challenges of compliance, identify opportunities, best-practices, and solutions to support compliance, and move the department forward toward securing IoT assets within the enterprise.

The FBI has not identified the need for any government unique standards in lieu of consensus-based standards. The FBI's Field Services Response Branch (FSRB) ensures the FBI is represented in appropriate Standards Development Organizations (SDOs) and bodies to position the FBI to develop and exploit technology in ways that recognize and protect civil liberties, allows for auditing of use, and enables the FBI mission. The FBI's centralized SDO authority resides with the Internet Governance (IG) and 5G Program Office led by an FBI Senior Leader. FSRB and its corresponding divisions, including Criminal Justice Information Services Division (CJIS), Operational Technology Division (OTD) and the Laboratory Division (LD) follow the policies of OMB Circular A-119 by regularly participating with commercial and private-sector on standard development of voluntary consensus standards via committees, working groups, meetings, conferences, and other engagements. The FBI's FSRB regularly participates in the following SDOs and bodies:

- **(U) International Telecommunications Union (ITU).** The FBI regularly attended ITU meetings which allocates global radio spectrum and satellite orbits, develops the technical standards that ensure networks and technologies seamlessly interconnect, and strive to improve access to ICTs to underserved communities worldwide. Standardization development and coinciding work is conducted via study groups. In FY2024, the FBI participated in two ITU study groups.

    - (U) Study Group 17 (SG-17) – This study group is responsible for initiating standards work on security, identity management, and other security aspects on ICT. In FY2024, the FBI substantially supported a contribution around Digital Identities for consensus to begin work within SG-17 in FY2025.
    - (U) Study Group 21 (SG-21) – This study group is responsible for multimedia technologies and has assumed the lead in Artificial Intelligence (AI) studies around ICTs. In FY 2024, the FBI was active in this newly aligned study group related to AI activities.

- **(U) Internet Governance Forum (IGF):** The FBI continued to be an active participant in this global forum hosted by the United Nations Department of Economic and Social Affairs (UNDESA) and administered by the Multi-stakeholder Advisory Group (MAG).

    - (U) In FY2024, the FBI's proposal to host a panel on lawful access and child online safety was accepted by the MAG. The panel occurred in FY2025 and examined the complex balance between safeguarding children online and protecting individual privacy rights

and addressed the ethical, legal, and practical challenges involved.

- **(U) National Information Exchange Model (NIEM):** Subject Matter Experts (SME) from the FBI's OTD participated in bi-weekly meetings with NIEM through FY2024 and advised on the exchange of audio and voice information. NIEM defines standard terminology, models, and relationships for the exchange of data across public and private organizations. In early FY 2025, the working group completed four-year effort to develop proposed standard terminology for submission to the International Committee for Information Technology Standards.

- **(U) The 3rd Generation Partnership Project (3GPP):** The FBI continues to participate in development of service-based interception capabilities for 5G-based communication services in 3GPP. This participation is meant to satisfy the industry consultation requirements of the Communications Assistance for Law Enforcement Act (CALEA) for the development of industry standards for covered services.

- **(U) Alliance for Telecommunications Industry Solutions (ATIS):** The FBI continues to participate regarding Packet Technology and Systems Committee (PTSC) and lawfully Authorized Electronic Surveillance (PTSC LAES). ATIS is a standards organization that develops technical and operational standards and solutions for the ICT industry.

- **(U) Internet Engineering Task Force (IETF):** IETF develops technical standards of the internet's architecture including encryption, cybersecurity, network security, routing and other key protocols. The FBI continues to satisfy the industry consultation requirements of CALEA for the development of industry lawful intercept specifications for covered services.

- **(U) European Telecommunications Standards Institute (ETSI):** The ETSI develops global technical standards for ICT- enabled systems, applications, and services. The FBI continues to participate in regard to the Technical Committee for Lawful Interception (ETSI TC-LI) to satisfy the industry consultation requirements of CALEA for the development of industry lawful intercept specifications for covered services.

- **(U) Cable Television Laboratories, Inc. (Cable-Labs):** Cable-Labs develops global technical standards for broadband internet access services. The FBI continues to participate to satisfy the industry consultation requirements of CALEA for the development of industry lawful intercept specifications for covered services.

The Office of Justice Programs' (OJP) National Institute of Justice (NIJ) fosters development of equipment standards and related conformity assessment programs that specifically address the needs of law enforcement, corrections and other criminal justice agencies. The goal is to ensure to the degree possible that equipment is safe, reliable and performs according to established minimum requirements. More about NIJ's standards and conformity assessment activities can be found at https://nij.ojp.gov/topics/equipment-and-technology/standards-and-conformity-assessment.

NIJ continues to operate its NIJ Compliance Testing Program (CTP) for law enforcement body armor. In FY 2024, 43 models of ballistic-resistant body armor were submitted to the NIJ CTP for testing at accredited commercial laboratories recognized by NIJ. In addition to initial testing, follow-up inspection and testing was conducted on 151 models complying with NIJ Standard 0101.06, *Ballistic Resistance of Body Armor.* In addition, 14 models of stab-resistant body armor were submitted to the NIJ CTP for testing in accordance with NIJ Standard 0115.00, *Stab Resistance of Personal Body Armor*. NIJ publishes its Compliant Products List for armor models that meet the program requirements at https://nij.ojp.gov/topics/equipment-and-technology/body-armor/ballistic-resistant-armor.

NIJ continues to participate in ASTM International Committee E54 on Homeland Security Applications which develops and publishes voluntary consensus standards (VCS) focused on methods and practices to test ballistic-resistant and other life safety equipment as well as standards for testing law enforcement public order personal protective equipment. In FY2024, NIJ published NIJ Standard 0101.07, *Ballistic Resistance of Body Armor*, a voluntary equipment performance standard for torso-worn body armor for law enforcement, which incorporates ten ASTM VCS, and updates the prior NIJ version. In FY2024, NIJ also published NIJ Standard 0123.00, *Specification for NIJ Ballistic Protection Levels and Associated Test Threats*, a voluntary specification that defines ballistic protection levels and associated test threats and incorporates three ASTM VCS. NIJ's body armor standard was first published in 1972 and is widely used by industry and law enforcement agencies as a benchmark for their body armor. NIJ developed these voluntary equipment performance standards using consensus methods, including gathering input from a wide range of stakeholders through workshops and public comment, using VCS published by ASTM, and using a Special Technical Committee composed of federal, state, and local law enforcement subject matter experts; ballistics laboratories; and other technical experts to establish the operational needs and requirements for practitioners in the field, steer the content of the document, address public comments, and assist with resolving various technical matters.

Through the American National Standards Institute (ANSI), NIJ supports U.S. operation of the secretariat for ISO/IEC JTC 1/SC 37 Biometrics, which focuses on the standardization of generic biometric technologies pertaining to human beings to support interoperability and data interchange among applications and systems.

USMS has not identified the need for any government unique standards in lieu of consensus-based standards. USMS Information Technology Division is represented in appropriate Standards Development Organizations along with other corresponding divisions and offices including, Office of General Council, CAPTURE Program, the Office of Data Governance, and Justice Prisoner Air Transportation System division. Collectively, they follow the policies of OMB Circular A-119 by regularly participating with commercial and private-sector on standard development of voluntary consensus standards via committees, working groups, meetings, conferences, and other engagements, including:

- **The International Standard for Business Aircraft Operations (IS-BAO):** The IS-BAO was developed by the business aviation community and is designed to promote use of high-quality operating practices by establishing a framework for effective safety and operational processes, providing tools to facilitate the implementation of best practices, and delivering a Safety Management System (SMS) appropriate to all operational profiles. IS-BAO helps operators apply industry best practices by challenging them to review and compare their safety-related policies, processes and procedures, and then make improvements, elevating them to the worldwide standard for business aviation.

The U.S. National Central Bureau (USNCB) is responsible for ensuring that its stewardship of INTERPOL data adheres to the Rules on Processing Data (RPD). INTERPOL's current RPD was adopted by INTERPOL's General Assembly (plenary session of all representatives from member countries) in 2011 and entered into force in July 2012. They have since been continually updated to keep pace with technological developments and evolving international data protection standards. The RPD was substantively updated at the General Assembly in 2024. The RPD govern all data processing in the INTERPOL Information System, including that surrounding the publication and circulation of Red Notices. This robust set of rules ensures the efficiency and quality of international cooperation between criminal police authorities through INTERPOL channels as well as due respect for the basic rights of the individuals who are subjects of this cooperation. USNCB has not created a derivative set of rules. The RPD is publicly available: https://www.interpol.int/content/download/5694/file/INTERPOL%20Rules%20on%20the%20Processing%20of%20Data-EN.pdf (will open as a pdf).

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Start by reviewing Table 1: Current Government Unique Standards FY2023.

To add a new GUS, please include:

1. **The name of the GUS;**
2. **The name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate;**
3. **A brief rationale on why the VCS(s) was not chosen.**

Current total GUS = 0

Table 1: Current Government Unique Standards FY2023

Department of Labor (DOL) Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

The United States Department of Labor (DOL) promulgates safety and health standards, which provide minimum requirements for the protection of employees from workplace hazards. DOL consults and routinely relies on Voluntary Consensus Standards (VCS) whenever a Federal standard is written or updated. There are approximately 200 consensus standards referenced throughout DOL standards. The references appear in hundreds of requirements and range from informational to mandatory requirements. Since the VCS are on a shorter update cycle than Federal standards, the VCS provide a more current view of industry standards and practices than DOL can effectively or economically achieve. DOL updated some of its existing standards to incorporate the new editions of cited voluntary consensus standards.

Additionally, DOL uses VCS for enforcement support in the absence of a Federal safety or health standard. DOL may also use a VCS where a federal standard exists, but compliance with the VCS in lieu of the Federal standard does not adversely affect worker safety and health. These uses improve public health and safety and allow industry to use newer technology and more flexible and innovative methods to protect workers.

Nearly 60 DOL employees participated on more than 160 committees, representing 23 VCS bodies. DOL benefits from participation in the VCS process and from the expertise of other VCS committee members as DOL seeks to update its existing Federal standards and develop new ones. DOL is kept abreast of current trends and is at the forefront of emerging technologies.

DOL's Federal standards are comprehensive but they do not address every hazard in every workplace. Compliance Safety and Health Officers reference VCS during inspections and investigations when no Federal standards apply to specific circumstances. VCS are also used for compliance assistance as reference to industry best practices.

The Department of Labor maintains electronic access to its standards at:

https://www.osha.gov/law-regs.html

https://www.msha.gov/regulations/standards-regulations

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Start by reviewing Table 1: Current Government Unique Standards FY2024.

To add a new GUS, please include:

1. **The name of the GUS;**
2. **The name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate;**
3. **A brief rationale on why the VCS(s) was not chosen.**

To rescind a GUS, (if they are no longer in use or have been replaced by a voluntary consensus standard) please:

1. **Cross out the standard from Table 1.**
2. **Add a 'Rationale for Rescinding' explaining why the standard was rescinded.**

Please record below the total number of GUS currently in use. This number should include the previous total plus any new GUS added, and minus any GUS rescinded:

Current total GUS = 17

Table 1: Current Government Unique Standards FY2024

(1) Government Unique Standard
29 CFR 1910 Subpart S - Electrical Standard (Incorporated: 2007) [Incorporated: 2007]

Voluntary Standard
NFPA 70 - National Electric Code
NFPA 70E - Electrical Safety Requirement for Employee Workplaces
ANSI/IEEE C2 - National Electrical Safety Code
ANSI/ASME B30.4 - Portal, Tower, and Pedestal Cranes
NFPA 33 - Spray Application Using Flammable or Combustible Materials
ANSI Z133.1 Arboricultural Operations for Pruning, Repairing, Maintaining, and Removing Trees, and Cutting Brush

Rationale
Several voluntary consensus standards were relied upon for the various provisions in the final rule, however, no single VCS is available to cover all the workplace applications that are addressed by OSHA. The Agency believes that it would be less burdensome for the regulated community to use one OSHA standard rather than purchase and use the 6 individual consensus standards it used to write the rule.

(2) Government Unique Standard
29 CFR 1910.1200 - Hazard Communication Standard (Incorporated: May 2012) [Incorporated: 2012]

Voluntary Standard
ASTM D 56-05, Standard Test Method for Flash Point by Tag Closed Cup Tester, Approved May 1, 2005, IBR approved for Appendix B to Sec. 1910.1200
ASTM D 86-07a, Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure, Approved April 1, 2007, IBR approved for Appendix B to Sec. 1910.1200
ASTM D 93-08, Standard Test Methods for Flash Point by Pensky-Martens

Rationale
Voluntary consensus standards (VCS) were relied upon for the various provisions in the final rule. This revision was undertaken to align the U.S. with other countries utilizing the United Nations Globally Harmonized System of Classification and Labeling. It was based on various standards and guidance materials used in international negotiations under the United Nations. No single VCS is available to cover all the hazard communication issues that are addressed by OSHA in this final rule. The Agency believes that it is less burdensome for the regulated community to use the one OSHA standard rather than require the purchase and use of numerous individual consensus standards it used to write the rule.

(3) Government Unique Standard
29 CFR 1915 Subpart F – General Working Conditions in Shipyard Employment (Incorporated: 2011) [Incorporated: 2011]

Voluntary Standard
ANSI/IESNA RP–7–01, Recommended Practice for Lighting Industrial Facilities
ANSI/ISEA Z308.1–2009, Minimum Requirements for Workplace First Aid Kits and Supplies
ANSI Z358.1–2009, Emergency Eyewash and Shower Equipment
ANSI Z4.1–1995 and Z4.3–1995, Sanitation
ANSI/ASME B56.1–1992, Recognition of the hazard of powered industrial truck tipover and the need for the use of an operator

Rationale
Several voluntary consensus standards (VCS) were relied upon for the various provisions in the final rule, however, no single VCS is available to cover all the workplace hazards that are addressed by OSHA in this final rule. The Agency believes that it is less burdensome for the regulated community to use the one OSHA standard rather than require the purchase and use of numerous individual consensus standards it used to write the rule.

(4) Government Unique Standard
29 CFR 1926 Subpart CC Cranes and Derricks in Construction (Incorporated: 2010) [Incorporated: 2010]

Voluntary Standard
ASME B30.2-2005

ASME B30.5-2004
ASME B30.7-2001
ASME B30.14-2004
AWS D1.1/D1.1M:2002 ANSI/AWS D14.3-94
BS EN 13000:2004
BS EN 14439:2006
ISO 11660-1:2008(E)
ISO 11660-2:1994(E)
ISO 11660-3:2008(E)
PCSA Std. No.2
SAE J185
SAE J987
SAE J1063
ANSI B30.5-1968

Rationale
Sixteen voluntary consensus standards (VCS) were relied upon for the various provisions in the final rule, however, no single VCS is available to cover all varieties of cranes and derricks and their applications.

(5) Government Unique Standard
29 CFR 1926.1002 Roll-Over Protective Structures (Incorporated: 2006) [Incorporated: 2006]

Voluntary Standard
SAE J1194-1999

Rationale
Many consensus standards were relied upon for various provisions in the final rule. The primary VCS that applies directly to ROPS is SAE J1194-1999 which incorporates by reference several other VCSs. If SAE J1194-1999 was adopted into the OSHA provisions, the regulated community would have to consult not only the primary VCS but all of the VCSs that are incorporated into it as well. OSHA believes it is less burdensome for the regulated community to use one OSHA standard rather than require the purchase and use of several VCSs.

(6) Government Unique Standard
30 CFR Part 75 - Safety Standards for Underground Coal Mines (Section 75.403 - Maintenance of Incombustible Rock Dust) - Incorporated: 2011 [Incorporated: 2011]

Voluntary Standard
ASTM C110-09 - Standard Test Methods for Physical Testing of Quicklime, Hydrated Lime, and Limestone
ASTM C737-08 - Standard Specification for Limestone Dusting of Coal Mines

Rationale
MSHA issued a final rule in June 2011 that finalized an Emergency Temporary Standard (ETS) on Maintenance of Incombustible Content of Rock Dust in Underground Bituminous Coal Mines. The basis of the ETS and final rule was a recommendation of the National Institute for Occupational Safety and Health contained in their Report of Investigations 9679 published in 2010. The ASTM consensus standards do not include the NIOSH recommendations or address the specific hazard covered in the MSHA ETS and final rule.

(7) Government Unique Standard
30 CFR Part 75 - Sealing of Abandoned Areas - Emergency Temporary Standard. [Incorporated: 2007]

Voluntary Standard
ACI 318-05 - Building Code Requirements for Structural Concrete and Commentary
ACI 440.2R-02 - Design and Construction of Externally Bonded FRP Systems for Strengthening Concrete Structures
ASTM E119-07 - Standard Test Methods for Fire Tests of Building Construction and Materials
ASTM E162-06 - Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source

Rationale
Four consensus standards were relied upon for various provisions in the emergency temporary standard, but no one consensus standard is available that covered all of the topics covered by MSHA's Emergency Temporary Standard.

(8) Government Unique Standard
Electric Motor-Drive Equipment Rule [Incorporated: 2001]

Voluntary Standard
IEEE Standard 242-1986 Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems (IEEE Buff Book) and NFPA 70 - national Electric Code

Rationale
The MSHA rule is a design-specific standards. 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.

(9) Government Unique Standard
Exit Routes, Emergency Action Plans, and Fire Prevention Plans, 29 CFR 1910, Subpart E [Incorporated: 2003]

Voluntary Standard
Life Safety Code, NFPA 101-2000

Rationale
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.

(10) Government Unique Standard
Fire Protection for Shipyards, 29 CFR Part 1915, Subpart P [Incorporated: 2004]

Voluntary Standard
NFPA 312-2000 Standard for Protection of Vessels During Construction, Repair, and Lay-Up
NFPA 33-2003 Standard for Spray Application Using Flammable or Combustible Materials

Rationale
Many consensus standards were relied on for various provisions in OSHA's final rule, including 15 consensus standards that are incorporated by reference. However, OSHA and its negotiated rulemaking committee determined that there was no, one consensus standard available that covered all the topics in the rule.

(11) Government Unique Standard
Longshoring and Marine Terminals; Vertical Tandem Lifts [Incorporated: 2009]

Voluntary Standard
ISO 668:1995 - Series 1 freight containers--Classification, dimensions and ratings
ISO 1161:1984 - Series 1 freight containers--Corner fittings--Specification
ISO 1161:1984/Cor. 1:1990 - Technical corrigendum 1:1990 to ISO 1161:1984
ISO 1496-1:1990 - Series 1 freight containers--Specifications and testing--Part 1: General cargo containers for general purposes
ISO 1496-1:1990/Amd. 1:1993

Rationale
Several voluntary consensus standards were relied upon for the various provisions in the final rule, however, no single VCS is available to cover all the workplace applications that are addressed by OSHA. The Agency believes that it would be less burdensome for the regulated community to use one OSHA standard rather than purchase and use the nine individual consensus standards used in this rule.

(12) Government Unique Standard
OSHA’s Respirable Crystalline Silica Standard for Construction [Incorporated: 2016]

Voluntary Standard
ASTM's E 2625 – 09, Standard Practice for Health Requirements Relating to Occupational Exposure to Respirable Crystalline Silica for Construction and Demolition Activities

Rationale
Rationale for not using: OSHA's standard includes a number of requirements that differ from the specifications in the ASTM standard because the requirements in the OSHA standard better effectuate the purposes of the OSH Act and protect employees from the significant risks posed by exposures to respirable crystalline silica (silica). The major differences include:

Both standards contain tables that specify control measures and respiratory protection for several common construction tools and tasks. OSHA's table (Table 1) differs from the ASTM tables in several respects; the OSHA standard divides respirator requirements according to duration of tasks and includes short duration tasks. Gives employers required to do exposure assessment a choice between complying with a scheduled monitoring approach or a performance-oriented approach. Requires a written plan to be reviewed annually; made available to employees, their representatives, OSHA and NIOSH upon request; address restricting access and requires a competent person to implement the plan.

Differences between the medical surveillance programs include, the ASTM standard triggers medical surveillance for employees exposed above the PEL or other occupational exposure limit for 120 or more days a year, while the OSHA standard triggers medical surveillance for employees who are required to use a respirator under the silica standard for 30 or more days a year. Medical examinations to be conducted within 30 days, spirometry testing is mandatory, an X-ray classification of 1/0 triggers referral to a specialist, tuberculosis testing for the initial examination of all employees who qualify for medical surveillance, allows employees to make their own placement decisions and the OSHA standard withholds medical information from the employer because of privacy concerns.

Hazard communication and training specifications differ from requirements in the OSHA standard in the following ways, requires training of all employees covered by the standard. The OSHA standard is more performance-based in order to allow flexibility for employers to provide training. Some training topics differ.

Recordkeeping specifications in the standard differ in that the ASTM standard specifies that medical and exposure records be retained for 40 years or for duration of employment plus 20 years.

(13) Government Unique Standard
OSHA's Respirable Crystalline Silica Standard for General Industry and Maritime [Incorporated: 2016]

Voluntary Standard
ASTM's E 1132 – 06, Standard Practice for Health Requirements Relating to Occupational Exposure to Respirable Crystalline Silica

Rationale
Rationale for not using: OSHA's standard includes a number of requirements that differ from the specifications in the ASTM standard because the requirements in the OSHA standard better effectuate the purposes of the OSH Act and protect employees from the significant risks posed by exposures to respirable crystalline silica (silica). The major differences include:

The OSHA standard gives employers required to do exposure assessment a choice between complying with a scheduled monitoring approach or a performance-oriented approach, requires employers to establish regulated areas, requires a written plan to be reviewed annually and made available to employees, their representatives, and OSHA and NIOSH upon request.

Differences between the medical surveillance program include, that the ASTM standard triggers medical surveillance for employees exposed above the PEL or other occupational exposure limit (OEL) for 120 or more days a year, while the OSHA standard triggers medical surveillance for employees exposed at or above the action level (half the PEL) for 30 or more days a year. That the medical examinations to be conducted within 30 days, spirometry testing is not optional, X-ray classification of 1/0 triggers referral to a specialist, requires tuberculosis testing for the initial examination of all employees who qualify for medical surveillance, allows employees to make their own placement decisions and the OSHA standard withholds medical information from the employer because of privacy concerns.

(14) Government Unique Standard
Personal Fall Protections Systems (29 CFR 1910.140) [Incorporated: 2017]

Voluntary Standard
ANSI/ALI A14.3-2008
ANSI/ASSE A10.32-2012
ANSI/ASSE Z359.0-2012
ANSI/ASSE Z359.1-2007
ANSI/ASSE Z359.3-2007
ANSI/ASSE Z359.4-2013
ANSI/ASSE Z359.12-2009
ANSI/IWCA I-14.1-2001

Rationale
The Agency believes that it is less burdensome for the regulated community to use the one OSHA standard rather than require the use of numerous individual consensus standards.

(15) Government Unique Standard
Sanitary Toilets in Coal Mines, 30 CFR 71, Subpart E [Incorporated: 2003]

Voluntary Standard
Non-Sewered Waste Disposal Systems--Minimum Requirements, ANSI Z4.3-1987

Rationale
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.

(16) Government Unique Standard
Steel Erection Standards [Incorporated: 2002]

Voluntary Standard
ANSI A10.13 - Steel Erection
ASME/ANSI B30 Series Cranes Standards

Rationale
Many consensus standards were relied upon for various provisions in the final rule, but there was no one consensus standard available that covered all of the topics covered by OSHA's final rule.

(17) Government Unique Standard
Walking-Working Surfaces (29 CFR 1910 Subpart D) [Incorporated: 2017]

Voluntary Standard
ANSI/ASSE Z359.0-2012
ANSI A14.1-2007
ANSI A14.2-2007
ANSI A14.3-2008
ANSI A14.5-2007
ANSI A14.7-2011
ANSI/TIA 222-G-1996
ANSI/TIA 222-G-2005
ASTM C 478-13
ASTM A 394-08
ANSI/ASSE A1264.1-2007
NFPA 101-2012
ICC IBC-2012
ANSI/ITSDF B56.1-2012
ASME/ANSI MH14.1-1987
ANSI MH30.1-2007
ANSI MH30.2-2005
ANSI/ASSE Z359.4-2012

ANSI/IWCA I-14.1-2001
ANSI/ASSE A10.18-2012

Rationale
The Agency believes that it is less burdensome for the regulated community to use the one OSHA standard rather than require the use of numerous individual consensus standards.

Department of State (State) Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

The Department of State leads U.S. foreign policy to advance the interests and security of the American people to make America stronger, safer, and more prosperous. The Department recognizes that standards play an important part in achieving these objectives. Our standards policy, engagement with standards development organizations, and use of standards within the agency supports the U.S. government's standards policy, which recognizes the importance of voluntary consensus standards and gives weight to a flexible "bottom-up approach," in which the needs of private industry and government agencies drive the choice in standards, rather than a "top-down" approach that may be unnecessarily restrictive.

The Bureau of Economic and Business Affairs

The Bureau of Economic and Business Affairs (EB) promotes a strong American economy by leveling the playing field for American companies doing business in global markets, attracting foreign investors to create jobs in America, and deploying economic tools to deny financing to terrorists, human rights abusers, and corrupt officials. Everything we do is to ensure that the United States remains the world's strongest and most dynamic economy.

EB houses the Department's Standards Executive. The Standards Executive represents the Department on the Interagency Committee on Standards Policy (ICSP) and works with the interagency to evaluate and address international standards and technical regulations that may impact U.S. commitments or harm U.S. commercial interests.

Web site: Bureau of Economic and Business Affairs - United States Department of State

The Bureau of Cyberspace and Digital Policy

The Bureau of Cyberspace and Digital Policy (CDP) coordinates the Department's work on cyberspace and digital diplomacy to encourage responsible state behavior in cyberspace and advance policies that protect the integrity and security of the infrastructure of the Internet, serve U.S. interests, promote competitiveness, and uphold democratic values. CDP's International Information and Communications Policy division (CDP/ICP) has responsibility for formulating, coordinating, implementing, and overseeing international digital and telecommunications policy for the U.S. government.

CDP/ICP's Multilateral Affairs (MA) office leads U.S. delegations to the International Telecommunication Union (ITU), a specialized agency in which governments, non-governmental organizations, and private sector entities cooperate on Telecommunication Development (ITU-D), Radiocommunication (ITU-R), and Telecommunication Standardization (ITU-T). ITU-T standards form the basis for much of the technical and policy aspects of international telecommunications and provide important input to the development of national regulatory policy. CDP/ICP/MA ensures new areas of standardization proposed

by the ITU-T reflect the needs and interests of the U.S. public and private sector and are within the mandate of the ITU-T.

CDP/ICP/MA coordinates U.S. foreign policy positions related to emerging technology standards development activities within international standards bodies such as the 3rd Generation Partnership Project (3GPP), European Telecommunications Standards Institute (ETSI), International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), Institute of Electrical and Electronics Engineers (IEEE), Internet Engineering Task Force (IETF), and others, specifically focusing on mitigating malign influence and increasing likeminded capability and capacity.

Web site: Bureau of Cyberspace and Digital Policy - United States Department of State

The Bureau of Overseas Building Operations

The Bureau of Overseas Buildings Operations (OBO) directs the Department's worldwide overseas building program. Coordinating both internally and externally with other Federal agencies and industry groups, OBO delivers safe, secure, functional, and resilient facilities that represent the U.S. government to host nations worldwide and support the achievement of U.S. foreign policy objectives abroad.

In developing and maintaining the governing standards for design and construction, OBO adheres to the same strategy as many other Federal, State, and local agencies, which is to adopt model codes developed by industry organizations, and supplement or modify them only as required to reconcile unique needs and circumstances applicable to our remote projects overseas (e.g., enhanced security, logistical and maintainability limitations.) The Department of State has adopted the International Code Council (ICC) model building codes and the National Fire Protection Association (NFPA) model codes and standards, including the National Electrical Code (NEC), as the basis for its codes, incorporating them into its contract standards by reference.

Likewise, functional design requirements and specifications defer to industry standards whenever possible. When OBO has specific requirements to suit OBO's unique mission, we follow Construction Specification Institute standards and utilize templates common in the industry, such as MasterSpec by the American Institute of Architects, and the Unified Facilities Guide Specifications by the Department of Defense, both of which incorporate standards developed by common industry groups by reference. Using industry standards saves time for our private sector partners (e.g., architects, engineers, and contractors), because they are familiar and consistent with industry norms. At overseas locations, OBO strives to meet a variety of standards and attempts to identify local equivalents to provide a high degree of reliability and safety.

These codes and specifications are updated periodically. The Foreign Affairs Manual in provision 15 FAM 900 incorporates consensus standards into the overseas safety, health, and environmental management program. OBO also applies the Secure Embassy Construction and Counterterrorism Act (SECCA) statutory requirements and participates on the Overseas Security Policy Board (OSPB) as all agencies under Chief of Mission authority must comply with OSPB standards set forth in the classified section of the Foreign Affairs Handbook, 12 FAH-6.

Web site: Bureau of Overseas Buildings Operations - United States Department of State

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Start by reviewing Table 1 (below): Current Government Unique Standards FY2024.

To add a new GUS, please include:

1. **The name of the GUS;**
2. **The name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate;**
3. **A brief rationale on why the VCS(s) was not chosen.**

To rescind a GUS, (if they are no longer in use or have been replaced by a voluntary consensus standard) please:

1. **Cross out the standard from Table 1.**
2. **Add a 'Rationale for Rescinding' explaining why the standard was rescinded.**

Please record below the total number of GUS currently in use. This number should include the previous total plus any new GUS added, and minus any GUS rescinded:

Current total GUS: 1

Table 1: Current Government Unique Standards FY2024

(1) Government Unique Standard
2023 OBO Design Standards (annual update, retitled OBO Project Standard Requirements going forward)

Rationale
The majority of the OBO Design Standards incorporate industry codes and standards (which are Voluntary Consensus Standards (VCS)) by reference to the degree they support OBO's mission. When it is necessary to amend, modify, or focus industry codes and standards to address unique considerations relevant to Department of State overseas facilities, the strategy of using "code supplements" is used to modify VCS model building codes is consistent with the practice of domestic state and local jurisdictions. It is also practical for the Department of State to further transform and standardize some VCS U.S. industry provisions into contractual requirements, which at the national level in the United States are addressed only as guidance for local jurisdictions; this is the case for some considerations related to zoning and utilities. Of the ten OBO Codes, all but one are supplements to VCS model codes. The OBO Telecommunications Code is considered a Government Unique Standard (GUS) because there are no VCS available suitable to reference for the broad requirements and contexts applicable to Department of State overseas facilities.

Department of Transportation (DOT) Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advancement Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

The U.S. Department of Transportation (DOT) and its Operating Administrations rely upon a transparent and collaborative regulatory and guidance program to support the Department's strategic goals, with an emphasis on safety. We employ our infrastructure and safety grants, training programs, and regulatory authorities as effectively as possible to reduce transportation-related fatalities and serious injuries across the transportation system. DOT uses voluntary consensus standards and conformity assessment activities as potent tools in our regulatory, guidance, safety advisory, enforcement and international harmonization activities. In addition, DOT relies upon targeted standards development processes with domestic and international standards developing organizations (SDOs) to advance innovative transportation technologies, and to advance the state of practice across all modes of transportation.

Over the past year, among other standards-related activities, DOT has taken the following actions:

- The Federal Aviation Administration (FAA) issued a national policy, "Development and Use of Voluntary Consensus Standards (FAA Order 8000.376), to enable a coordinated and effective approach to the development and use of voluntary consensus standards, international standards, and other standards; and to manage the effective use of resources by focusing the FAA's participation on the development of standards on anticipated regulatory needs.

- FAA adopted the 2017 International Civil Aviation Organization (IACO) carbon dioxide emission standards for certain airplanes, aligning United States law with the ICAO standards.

- The Federal Motor Carrier Safety Administration (FMCSA) amended its Hazardous Materials Safety Permit regulations to incorporate by reference the updated Commercial Vehicle Safety Alliance handbook containing inspection procedures and out-of-service criteria for inspections of shipments of transuranic waste and highway route- controlled quantities of radioactive material.

- The Pipeline and Hazardous Materials Safety Administration (PHMSA) amended the Federal pipeline safety regulations to incorporate by reference all or parts of more than 20 new or updated voluntary, consensus industry technical standards. This action allows pipeline operators to use current technologies, improved materials, and updated industry and management practices.

Information on the Department's regulatory and enforcement programs using standards and conformity assessment may be found at "Regulatory Information" (https://www.transportation.gov/regulations). The Federal Aviation Administration's (FAA) use of standards and conformity assessment in operational activities beyond regulation and enforcement may be found at "Regulations & Policies" (https://www.faa.gov/regulations_policies).

2. Please list the government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards during FY 2023. Please note that GUS which are still in effect from previous years should continue to be listed, thus the total number in your agency's report will include all GUS currently in use (previous years and new as of this FY): 11

(1) Government Unique Standard
49 CFR 571.102, Transmission shift position sequence, starter interlock, and transmission braking effect (2005) [Incorporated: 2016]

Voluntary Standard
SAE J915

Rationale
This regulation was issued on July 1, 2005. SAE J915, “Automatic Transmissions- Manual Control Sequence,” published on July 1, 1965, and updated on March 9, 2017. NHTSA has not incorporated this standard because its content currently relies on 49 CFR 571.102 and 571.114, and the SAE J915 abstract also states that some portions of the standard are unique and may not represent current common practices within the user community. NHTSA is evaluating industry standards to inform the next steps of any revisions to its regulations.

(2) Government Unique Standard
49 CFR 571.114, Theft protection and rollaway prevention (2006) [Incorporated: 2016]

Voluntary Standard
SAE J2948

Rationale
NHTSA published this regulation on April 7, 2006. SAE Recommended Practice, SAE J2948 "Keyless Ignition Control Design" was published on January 13, 2011. NHTSA reviewed and referenced SAE J2948 in an NPRM it issued on December 12, 2011 and is considering whether to finalize this regulatory action.

(3) Government Unique Standard
49 CFR 571.123, Motorcycle controls and displays [Incorporated: 2016]

Voluntary Standard
ISO 2575

Rationale
NHTSA first published this regulation on April 12, 1977. ISO 2575, “Road vehicles -- Symbols for controls, indicators and tell-tales,” was published in 2004, and specifies symbols for use on vehicle controls and indicators. On November 26, 2014, NHTSA issued an NPRM proposing to allow the use of an ISO 2575 warning label for ABS failure indication. NHTSA is considering whether to finalize this regulatory action.

(4) Government Unique Standard
49 CFR 571.129 New non-pneumatic tires for passenger cars (1990) [Incorporated: 2016]

Voluntary Standard
SAE J918c

Rationale
This regulation was published on July 20, 1990. Although not incorporated by reference, the performance and test requirements are based upon SAE recommended practice, "Passenger Car Tire Performance," J918c, last updated on May 1, 1970. NHTSA is evaluating industry standards to inform the next steps of any revisions to its regulations.

(5) Government Unique Standard
49 CFR 571.138, Tire pressure monitoring systems (2005) [Incorporated: 2016]

Voluntary Standard
SAE J2657

Rationale
NHTSA published this regulation on April 8, 2005. SAE J2657, Tire Pressure Monitoring Systems for Light Duty Highway Vehicles, was published on December 16, 2004. While SAE J2657 was not incorporated in the final rule, the regulation has many commonalities. However, SAE J2657 does not contain requirements or test procedures for a malfunction indicator and requires different levels of rigorousness. NHTSA is evaluating industry standards to inform the next steps of any revisions to its regulations.

(6) Government Unique Standard
49 CFR 571.207, Seating Systems [Incorporated: 2016]

Voluntary Standard
SAE J879
SAE J879B

Rationale
This regulation was published on April 8, 2005. Although not incorporated by reference, the test procedures and performance requirements are based on SAE J879, "Passenger Car Front Seat and Seat Adjuster," published on November 1, 1963, and SAE J879B, "Motor Vehicle Seating Systems," published on July 1, 1968. NHTSA is evaluating industry standards to inform the next steps of any revisions to its regulations.

(7) Government Unique Standard
49 CFR 571.226, Ejection Mitigation [Incorporated: 2010]

Voluntary Standard
SAE J2568—Intrusion Resistance of Safety Glazing Systems for Road Vehicles
BSI AU 209—Vehicle Security

Rationale
This regulation was published on January 19, 2011. SAE J2568 - Intrusion Resistance of Safety Glazing Systems for Road Vehicles was published on April 24, 2001 and BSI AU 209 - Vehicle Security was published in August 1995. NHTSA studied the test procedures and performance requirements in these standards but did not adopt them because they did not meet NHTSA's safety objectives and in some cases, were costlier. NHTSA is evaluating industry standards to inform the next steps of any revisions to this regulation.

(8) Government Unique Standard
49 CFR 571.302 Flammability of Interior Materials (1971) [Incorporated: 2016]

Voluntary Standard
ASTM D5132
SAE J369

Rationale
This regulation was published on December 2, 1971. Although not incorporated by reference, these standards are technically equivalent to the regulation: ASTM D5132, "Standard Test Method for Horizontal Burning Rate of Polymeric Materials Used in Occupant Compartments of Motor Vehicles," published in 1994 and SAE J 369, "Flammability of Polymeric Interior Materials - Horizontal Test Method," published on March 1, 1969. NHTSA initiated a research program in 2016 to evaluate the test procedures of the industry standards to inform the next steps of any revision to this regulation.

(9) Government Unique Standard
49 CFR 571.305, Electric-powered vehicles: electrolyte spillage and electrical shock protection (2000) [Incorporated: 2016]

Voluntary Standard
SAE J1766

Rationale
The standard was issued on September 27, 2000, and was based on SAE J1766, "Recommended practice for electric and hybrid electric vehicle battery systems crash integrity testing," published on February 1, 1996. NHTSA reviewed the 2016 revision of SAE J1766 and other industry standards for electric vehicles in an NPRM it issued on March 10, 2016 and is considering whether to finalize this regulatory action.

(10) Government Unique Standard
49 CFR Part 563, Event Data Recorders (2006) [Incorporated: 2016] [Amended 2024]

Voluntary Standard
SAE J1698–1
IEEE P1616

Rationale
This regulation was amended on December 18, 2024. NHTSA did not incorporate either the SAE Event Data Recorder – Output Data Definition (SAE J1698–1; 2023) or the IEEE Motor Vehicle Event Data Recorder (MVEDR) (IEEE 1616-2001) because research suggested that the recommended recording duration by these standards would not capture the initiation of crash avoidance maneuvers.

The FAST Act (P.L. 114-94; Dec. 4, 2015) directed NHTSA to conduct a study to determine the amount of time EDRs should capture and record precrash data to provide sufficient information for crash investigators, and to conduct a rulemaking based on this study to establish the appropriate recording period in NHTSA's EDR regulation. NHTSA conducted the EDR Duration Study and submitted a Report to Congress summarizing the results of this study in September 2018. This regulation exceeds the pre-crash data recording durations of the SAE and IEEE standards (i.e., SAE and IEEE recommend recording eight seconds of precrash data) based upon the new information obtained from the EDR Duration Study. The

results of the study on EDR recording duration suggest that the recommended recording duration by these standards would not capture the initiation of crash avoidance maneuvers. NHTSA declined to adopt the voluntary consensus standards because such a decision would be inconsistent with the best available information to the agency and conflict with the outcome of a study required by the FAST Act.

(11) Government Unique Standard
Brake Performance, 49 CFR 393.52 - FMCSA's Performance-Based Brake Testers (PBBTs) Requirement [Incorporated: 2002]

Voluntary Standard
SAE J667 - Brake Test Code Inertia Dynamometer (cancelled February 2002)
SAE J1854 - Brake Force Distribution Performance Guide - Trucks and Buses

Rationale
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.

U.S. Environmental Protection Agency (EPA) Fiscal Year 2024 Agency Report

Draft deliberative responses are in blue text

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

Please refer to EPA's standards-specific website: www.epa.gov/vcs

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

To add a new GUS, please include:

1. **The name of the GUS;**
2. **The name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate;**
3. **A brief rationale on why the VCS(s) was not chosen.**

GUS EPA began using in FY2024 = 0
Current total GUS in use by EPA = 39 (click here to view all GUS used in lieu of VCS by EPA since 2001)

Federal Communications Commission (FCC) Fiscal Year 2024 Agency Report

1. **Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.**

Summary
The FCC references many standards in support of the Commission's regulatory responsibilities. These standards, referenced in the FCC rules, range from referencing measurement methods and conformity assessment procedures to radio carriage requirements for oceangoing vessels to promote safety of life. In addition, standards are used to promote compatibility between radios and to achieve coordination among Commission licensees. In all cases, the Commission, through its public rulemaking process, has proposed and adopted voluntary consensus standards (e.g., ANSI, IEEE, 3GPP, etc.) under which licensees and permitees must operate and under which it carries out conformity assessment activities.

Voluntary Consensus Standards Examples
For example, the Commission uses consensus standards for certifying wireless handset models as hearing aid-compatible. The latest certification standard is the 2019 ANSI Standard which was developed and is maintained by the ANSI C63®–Electromagnetic Compatibility Committee (ANSI Committee). At the request of the ANSI Committee, the Commission incorporated by reference the 2019 ANSI Standard into the wireless hearing aid compatibility rules (47 CFR § 20.19) in February 2021 (FCC 21-28). This consensus standard references the TIA 5050 Volume Control Standard which is another consensus standard developed by a related ANSI Committee. Along with incorporating by reference the 2019 ANSI Standard into the Commission's wireless hearing aid compatibility rules, the Commission also incorporated by reference the TIA 5050 Volume Control Standard into the wireless hearing aid compatibility rules as part of the February 2021 order. The 2019 ANSI Standard and the related TIA 5050 Volume Control Standard became the exclusive testing standards for determining the hearing aid compatibility of wireless handset models in December 2023. These standards replaced older ANSI standards that the ANSI Committee had previously requested that the Commission use to determine wireless hearing aid compatibility. In addition to using industry developed technical standards for determining hearing aid compatibility, the Commission's hearing aid compatibility rules are based on industry consensus positions (*e.g.*, FCC 24-112).

As another example, in August 2024, the Commission adopted a Report and Order that enables initial uncrewed aircraft system (UAS) operations in the 5030-5091 MHz band. The Report and Order adopted service rules that will provide operators the ability to obtain direct frequency assignments in a portion of the 5030-5091 MHz band, including certain technical rules mandating compliance with standards incorporated by reference to RTCA DO-362A, "Command and Control (C2) Data Link Minimum Operational Performance Standards (MOPS) (Terrestrial)." Another example is the successful use of the Telecommunications

Industry Association Telecommunications System Bulletin 10-F, "Interference Criteria for Microwave Systems." This standard, referenced within several Commission rule parts has become the cornerstone for applicants and licensees to successfully coordinate the use of microwave communications systems.

Also, on October 2, 2017 the European standard for wireless microphones ETSI EN 300 422-1 V1.4.2 (2011-08): “Electromagnetic compatibility and Radio Spectrum Matters (ERM); Wireless Microphones in the 25 MHz to 3 GHz frequency range; Part 1: Technical characteristics and methods of measurement, was incorporated by reference in Section 15.38 of the FCC rules. This standard is used for the evaluation of the out-of-band emissions of wireless microphones.

When making measurements to demonstrate compliance with the FCC rules it is required to use the appropriate measurement methods as specified in the applicable section of the FCC rules. For example, for Part 15 devices see Section 15.31 for a list of required measurement standards. Other measurement procedures that have been found acceptable by the Commission, in accordance with Section 2.947, may also be used. See Measurement Procedures and 47 CFR Section 2.947.

Conformity Assessment
Radio Frequency (RF) devices are required to be properly authorized under 47 CFR Part 2 prior to being marketed or imported into the United States. The Office of Engineering and Technology (OET) administers the equipment authorization program under the authority delegated to it by the Commission. This program is one of the principal ways the Commission ensures that RF devices used in the United States operate effectively without causing harmful interference and otherwise comply with the Commission’s rules. All RF devices subject to equipment authorization must comply with the Commission’s technical requirements prior to importation or marketing. See Equipment Authorization Approval Guide

2. **Please list the government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards during FY 2021. Please note that GUS which are still in effect from previous years should continue to be listed, thus the total number in your agency's report will include all GUS currently in use (previous years and new as of this FY):** 0

FTC Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

The Federal Trade Commission ("FTC" or "Commission") is an agency of the United States Government charged with enforcing competition and consumer protection laws. The Commission's primary contact with voluntary consensus standards and the organizations that produce them is in connection with the enforcement of the Federal Trade Commission Act, which prohibits unfair methods of competition and unfair or deceptive acts and practices in or affecting commerce. Consistent with its statutory authority, the Commission occasionally has promulgated consumer protection regulations that incorporate voluntary consensus standards. *See, e.g.*, 16 C.F.R. § 306.5 (provision of FTC's "Fuel Rating Rule"); 16 C.F.R. § 460.5 (provision of FTC's "R-Value Rule"). FTC staff monitors complaints about products and may conduct investigations, including testing, to ensure accurate labeling or advertising. The Commission does not participate in the standards development activities of voluntary consensus standards bodies.

To carry out the provisions of OMB Circular A-119, the FTC has designated the Deputy General Counsel for Legal Counsel as its Agency Standards Executive. The FTC's Office of the General Counsel, under the direction of the Agency Standards Executive, provides advice to FTC staff regarding implementation of revised OMB Circular A-119.

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Start by reviewing Table 1: <u>Current Government Unique Standards FY2023</u>.

To add a new GUS, please include:

1. **The name of the GUS:** 16 C.F.R. § 432.3(e), Standard test conditions
2. **The name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate:** ANSI/CTA-490-B
3. **A brief rationale on why the VCS(s) was not chosen:** Pursuant to its ongoing regulatory review schedule, in 2020, the Commission sought comment on its Amplifier Rule, which is codified at 16 C.F.R. part 432. 85 FR 82391 (Dec. 18, 2020). In response, the FTC received 550 unique comments. The comments indicated that there was a continuing need for the rule. In addition, many commenters urged the Commission to standardize certain test conditions in the rule that are used in consumer disclosures, thus enabling consumers to meaningfully compare amplifier performance attributes. The Commission therefore published a Notice of Proposed Rulemaking (NPRM) as well as a Supplemental Notice of Proposed Rulemaking (SNPRM) seeking comment

on the test conditions proposed by commenters. *See* 87 FR 45047 (Jul. 27, 2022); 88 FR 56780 (Aug. 21, 2023). The FTC received nine comments in response to the NPRM and four comments in response to the SNPRM, including comments from the voluntary consensus body that promulgated the VCS at issue. No commenters suggested that the FTC adopt the VCS at issue. Therefore, consistent with the rulemaking record, the FTC amended the Amplifier Rule to add the test conditions in 16 C.F.R. § 432.3(e). 89 FR 49799 (Jun. 12, 2024).

Current total GUS = 1

Table 1: Current Government Unique Standards FY2023

Federal Energy Regulatory Commission (FERC) Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

FERC uses voluntary consensus standards (VCSs) to achieve its regulatory mission. As described below, FERC primarily uses standards provided by the North American Energy Standards Board (NAESB) [1] and North American Electric Reliability Corporation (NERC). [2] FERC's use of the NAESB standards in the context of natural gas pipelines can be found here: https://www.ferc.gov/industries-data/natural-gas/overview/natural-gas-pipelines/standards-business-practices-interstate, and FERC's use of NERC standards is described here: https://www.ferc.gov/electric-reliability.

NAESB

FERC has relied on business practice standards developed and promoted by NAESB to facilitate well-functioning wholesale gas and electric markets. NAESB, an American National Standards Institute accredited consensus standards development organization, develops and adopts voluntary standards and model business practices designed to promote competitive and efficient natural gas and electric service. FERC's use of NAESB-developed wholesale gas and electric standards ensure that the incorporated business practices and technical guidelines have broad industry development, involvement, and endorsement. From time to time, as FERC considers appropriate, select NAESB standards applicable to wholesale natural gas and wholesale electric business practices are incorporated by reference into FERC's regulations.[3]

NERC

Pursuant to separate statutory authority provided in section 215 of the Federal Power Act, FERC reviews reliability standards developed by NERC, which are not subject to the reporting requirement in OMB Circular A-119. [4] NERC reliability standards define the reliability requirements for planning and

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[1] NAESB's website may be found at http://www.naesb.org/.

[2] NERC's reliability standards may also be found here at https://www.nerc.com/pa/Stand/Pages/default.aspx.

[3] *See, e.g.,* 18 C.F.R. Part 38 titled Business Practice Standards and Communication Protocols for Public Utilities, and 18 C.F.R. § 284.12 titled Standards for Pipeline Business Operations and Communications.

[4] *See* Office of Management and Budget, *OMB Circular A-119: Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities*, p. 17 (January 22, 2016) (stating the reporting requirement does not apply to independent agencies "subject to separate statutory requirements regarding the use of voluntary consensus standards."); 16 U.S.C. § 824o(d) (providing separate statutory authority regarding reliability standards). Accordingly, these NERC reliability standards are referenced exclusively for informational purposes.

operating the North American bulk power system. NERC develops the reliability standards using an industry-driven American National Standards Institute (ANSI) accredited process that ensures the process is: (1) open to all persons who are directly and materially affected by the reliability of the North American bulk power system; (2) transparent to the public; (3) demonstrates the consensus for each standard; (4) fairly balances the interests of all stakeholders; (5) provides for reasonable notice and opportunity for comment; and (6) enables the development of standards in a timely manner. Upon review, FERC can either approve the proposed standards or remand them back to the electric reliability organization for further consideration. The reliability standards become mandatory and enforceable only after they are approved by FERC.

2. Please list the government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards during FY 2024. Please note that GUS which are still in effect from previous years should continue to be listed, thus the total number in your agency's report will include all GUS currently in use (previous years and new as of this FY):

FERC has one Government Unique Standard from FY2024.
Updating Regulations for Engineering and Design Materials for Liquefied Natural Gas Facilities Related to Potential Impacts Caused by Natural Hazards, 185 FERC 61050 (Oct. 23, 2023) (codifying FERC's existing practice that requires applicants to file information as needed pursuant to sections 3 or 7 of the Natural Gas Act in order for staff to evaluate the natural hazards and design criteria related to a proposed LNG facility).

Rationale
The Final Rule does not adopt voluntary consensus standards related to natural hazard evaluation and design criteria for Liquefied Natural Gas (LNG) structures, systems, and components because adopting such standards would be impractical. FERC's evaluation and analysis of LNG applications, which propose technically diverse types of facilities, must consider the unique locations in which the LNG facilities will be sited, constructed, and operated. Over 2,500 standards exist that could be applicable to an LNG structure, system, or component. To ensure that all types of proposals are covered by a single standard would require that FERC codify every potential consensus standard that could apply in its various LNG proceedings. Such an effort would be infeasible and would confuse applicants about which standards FERC expects them to apply to their proposal.

By having LNG applicants identify all federal regulations, codes, and standards that apply to their project-specific and site-specific proposal, FERC may evaluate applications for LNG facilities on a case-by-case basis and consider the federal regulations, codes, and standards that apply (including any voluntary consensus standards that are adopted into those regulations). Based on this information, FERC can more effectively coordinate with other federal agencies that have jurisdiction over the proposal; evaluate whether the identified regulations, codes, and standards contain informational gaps; and recommend modifications or conditions to be included in FERC’s authorization. This approach reduces the risk of adverse effects to the public and the environment.

[GSA] Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

GSA adheres to all aspects of standards related programmatic activities as outlined in OMB Circular A-119. Our Agency reviews our current standards use on a recurring basis, and continuously assess the potential to expand use of non-government standards/ voluntary consensus-based standards when practical for the Government.

This leads to increased efficiencies for our business processes and contributes to greater reliability on product quality regardless of what type of product it is. Standards used at GSA are broad and range from Information Technology solutions to buildings and beyond. GSA has a diverse mission set and the standards program is focused on ensuring commercially available and industry driven standards to the greatest extent possible.

GSA's standards webpage is currently being updated and will be live soon. GSA can amend this report with the site's URL when it's available.

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Start by reviewing Table 1: Current Government Unique Standards FY2024.

To add a new GUS, please include:

The name of the GUS;

The name(s) and version(s) of the VCS(s) that might have been used, but after review, found to be inappropriate;

A brief rationale on why the VCS(s) was not chosen.

Current total GUS: 1

(1) Government Unique Standard (Standards and Engineering Branch): FF-L-2937 [Incorporated: 2006]

Rationale: Federal Specification FF-L-2937 – Combination Lock, Mechanical used in lieu of UL 768 Combination Locks. The lock covered by the GUS is used for the protection of classified information and weapons. The UL specification did not meet identified government needs for dialing tolerance and bolt end pressure.

U.S. Government Publishing Office Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

At the U.S. Government Publishing Office (GPO), Voluntary Consensus Standards (VCSs) are vital in ensuring consistency and maintaining the highest quality throughout our operations. These standards are integrated into our manufacturing processes, enabling us to produce documents of superior quality. In procurement and acquisition, Voluntary Consensus Standards help define our requirements, ensuring a fair and competitive environment for vendors when bidding on agency needs. By referencing these standards, we clearly communicate our minimum expectations to potential bidders and offerors.

In addition to procurement, Voluntary Consensus Standards are essential for ensuring the accuracy and consistency of the services we provide to our customers. They also guide the formulation of our compliance policies and procedures, particularly in areas like air quality, waste management, wastewater discharge, pollution prevention, and health and safety. GPO relies on relevant Voluntary Consensus Standards and applicable Federal and District regulations to adhere to legal and environmental standards.

Furthermore, Voluntary Consensus Standards are fundamental in cataloging practices. Using standards-based rules and procedures, such as NISO Z39.50, ensures consistent record creation, search, retrieval, and transfer across international library catalogs, supporting seamless access and organization of records globally. GPO upholds its commitment to quality, fairness, and efficiency in all its operations through these comprehensive applications of Voluntary Consensus Standards.

As reported below, please find the U.S. Government Publishing Office agency standards-specific website links:

- **PPP Printing Procurement Regulation**

  Printing Procurement Regulations_7-22 (gpo.gov)

- **PPP GPO Contract Terms – Quality Assurance Through Attributes Program**

  https://www.gpo.gov/docs/default-source/forms-and-standards-files-for-vendors/qatap-rev-09-19.pdf

- **PPP GPO Contract Terms - Solicitation Provisions, Supplemental Specifications, and Contract Clauses**

  https://www.gpo.gov/docs/default-source/forms-and-standards-files-for-vendors/contractterms2018.pdf

- **PPP GPO Contract Terms - Quality Assurance Through Attributes Program for Microforms**

  https://www.gpo.gov/docs/default-source/forms-and-standards-files-for-vendors/310-3-contract-terms-microforms262f0930b44a64308413ff00001d133d.pdf

- **PPP Government Printing and Binding Regulations, published by the JCP**

  https://www.gpo.gov/docs/default-source/forms-standards-pdf-files/jcpregs.pdf

- **PPP JCP-O-90 Printable Plastic Film (Synthetic Paper)**

  https://www.gpo.gov/docs/default-source/forms-and-standards-files-for-vendors/jcp-code-o-90-paper.pdf

- **PPP JCP O-91 Uncoated (Tear Resistant) Synthetic Paper**

  https://www.gpo.gov/docs/default-source/forms-standards-pdf-files/o-91_update.pdf

- **PPP Government Paper Specification Standards, 09/2019, No. 13**

  https://www.gpo.gov/docs/default-source/forms-and-standards-files-for-vendors/vol_13.pdf

- **PPP Government Paper Specification Standards, 03/2011, No. 12**

  http://www.gpo.gov/pdfs/customers/sfas/vol12/vol_12.pdf

- **PPP Guidelines for Agency Representatives Attending Press Sheet Inspections.**

  https://www.gpo.gov/docs/default-source/forms-standards-pdf-files/guidelines_attending_presssheetinspections.pdf?sfvrsn=2

- **PPP Guidelines for Contractors Holding Press Sheet Inspections--Hardcopy Available from the GPO, Print Procurement, APS, QCPP**

  https://www.gpo.gov/docs/default-source/forms-and-standards-files-for-vendors/contractors_holding_psi.pdf?sfvrsn=2

- **PPP GPO Resolution Target**

  http://www.gpo.gov/gporestarget.pdf

- **LSCM/PST GPO Cataloging Guidelines**

  https://www.fdlp.gov/cataloging-and-classification/cataloging-guidelines

- **PST Metadata Object Description Standard (MODS)**

  http://www.loc.gov/standards/mods/

- **PST Metadata Encoding & Transmission Standard (METS)**

  http://www.loc.gov/standards/mets

- **PST Data Dictionary for Preservation of Metadata: PREMIS**

  https://www.loc.gov/standards/premis/

- **FIN GPO Accounting Policy Manual**

  https://home.gpo.gov/docs/default-source/executive-offices/chief-financial-officer/accounting-policy-manual-q4-fy2024.pdf

The U.S. Government Publishing Office utilizes consensus standards from the following entities:

- American National Standards Institute (ANSI)
- International Organization for Standards (ISO)
- General Alliance for Applications in Commercial Offset Lithography (GRACoL)
- National Information Standards Organization (NISO)
- Library Binding Institute (LIB)
- Optical Storage Technology Association (OSTA)
- Idealliance
- Federal Agencies Guidelines Initiative (FADGI)
- National Institute of Standards Technology (NIST)
- W3C Standards
- Internet Engineering Task Force (IETF)
- International Telecommunication Union (ITU)
- Sustainable Green Printing Partnership (SGP)
- American Society of Mechanical Engineers (ASME)
- National Fire Protection Association (NFPA)
- Technical Association for the Pulp and Paper Industry (TAPPI)
- ASTM International (ASTM)

2. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Current total GUS = 0

The U.S. Government Publishing Office did not implement any new Government Unique Standards in lieu of Voluntary Consensus Standards in FY2024.

National Archives and Records Administration (NARA) Fiscal Year 2024 Agency Report

I. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

When NARA used standards during rulemaking in FY 2024, we complied with Executive Order 12866, "Regulatory Planning and Review"; Executive Order 13563, "Improving Regulation and Regulatory Review"; Executive Order 13610, "Identifying and Reducing Regulatory Burdens"; Executive Order 13609, "Promoting International Regulatory Cooperation"; Executive Order 13771, "Reducing Regulation and Controlling Regulatory Costs"; and OMB Circular A-4, "Regulatory Analysis."

NARA promulgated no rules in FY 2024 using Government unique standards (GUS).

NARA uses voluntary consensus standards (VCS) in our procurement activities. NARA's Office of the Chief Acquisition Officer relies on program office personnel (technical experts) to identify, manage, and review the standards used in procurements of products and services within their own program areas. NARA's standards-related activities are available here:

https://www.archives.gov/preservation/storage/specs-housing-exhibition-2015-current.html
https://www.archives.gov/records-mgmt/storage-standards-toolkit

https://www.archives.gov/files/federal-register/write/handbook/ibr.pdf

Architectural and Design Standards for Presidential Libraries:
https://www.archives.gov/files/foia/pdf/nara1571.pdf

II. Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.

Current total GUS: 0

National Aeronautics and Space Administration (NASA) Fiscal Year 2024 Agency Report

1. Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards (VCS) and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.

NASA promotes the use of VCS by identifying and approving NASA-endorsed technical standards, a "pick list" of technical standards to consider first when selecting program and project requirements. These activities facilitate selection and use of VCS in lieu of NASA technical standards or other government agency standards in compliance with OMB Circular No. A-119. NASA directly cites OMB Circular A-119 and the preference for use of VCS and participation in VCS bodies' activities in NASA directives (NASA Policy Directive (NPD) 7120.4, NASA Engineering and Program/Project Management Policy, and NASA Procedural Requirements (NPR) 7120.10, Technical Standards for NASA Programs and Projects). Proven, consensus-based standards are critical in defining engineering, safety and mission assurance, and health and medical requirements for NASA missions. These technical standards include, but are not limited to, voluntary consensus standards (VCS) cited in NASA directives and technical standards, other government agency standards, NASA technical standards, and NASA-endorsed standards. As NASA technical standards are developed and revised, more VCS are incorporated where appropriate. Many examples of NASA Technical Standards citing use of VCS, and access to those VCS, can be found on the NASA Technical Standards System Web site at https://standards.nasa.gov. NASA requires, prior to proposing development, revision, or revalidation of a NASA technical standard, a determination be made whether a VCS exists or is in development that meets or can be tailored to meet NASA's needs. NASA technical discipline experts also evaluate the opportunity to replace an existing NASA technical standard with a VCS or propose conversion to a VCS, thereby reducing duplicate standards. NASA follows the process required for VCS specified in OMB Circular A-119: openness, balance, due process, appeals process, and consensus.

NASA encourages participation in VCS developing bodies and collects data on participation in development and revision of VCS. During this reporting period, 139 NASA representatives participated in 606 VCS development/revision activities in 36 Standards Developing Bodies. NASA's participation in VCS development/revision activities slightly increased from FY2023 to FY2024, although some participants and documents in work changed.

In the ASTM F47 Commercial Spaceflight Committee, NASA participation spans a range of robotic and human spaceflight topics designed to develop standards that can be endorsed as a means of complying with FAA regulations or NASA requirements, or that can generally promote a more cogent state-of-practice in nascent areas where NASA has strategic interest in commercial services capabilities. NASA is involved in the development of a new Guide or Practice entitled, "New Practice for Safe Operating Practices In-Space for Space Fission Reactors Used for Nuclear Power and Propulsion." This activity was identified as a high-priority gap for NASA. The effort will result in a recommended state-of-practice for in-space nuclear safety of fission systems that can be voluntarily followed by commercial vendors or levied on NASA contracts as appropriate, and which may eventually be endorsed by a to-be-legislated in-space nuclear regulatory authority. NASA participation in the development of NFPA 461, Standard for

Fire Protection of Spaceport Facilities also supports filling a gap in commercial human spaceflight standards.

Several NASA representatives participated in the ISO TC20/SC14 Subcommittee for Space Systems and Operations in support of promoting development and use of VCS. The committee's scope of work is the standardization for crewed and uncrewed space vehicles, their design, production, maintenance, operation, and disposal, and the environment in which they operate. Eight working groups provide an international forum for addressing the standardization needs and concerns of organizations and personnel involved with the development and operation of space systems. NASA currently supports the development/revision of over 19 ISO TC20/SC14 international consensus standards.

NASA continues to be well represented on AIAA committees to promote development/revision and use of VCS, as these standards are applied on many NASA programs and projects in lieu of NASA standards. Some examples are the AIAA Aerospace Pressure Vessels Committee; AIAA S-080, Space Systems - Metallic Pressure Vessels, Pressurized Structures, and Pressure Components; AIAA S-081, Space Systems - Composite Overwrapped Pressure Vessels (COPVs); AIAA S-082 202x, Space Systems - Composite Overwrapped Pressure Vessels with a Composite Liner; AIAA S-110, Space Systems - Structures, Structural Components, and Structural Assemblies; AIAA-S-113, Criteria for Explosive Systems and Devices on Space and Launch Vehicles; AIAA-S-136 -202x, Battery Safety Standard for Space Applications; AIAA-S-144-202X, Code Verification in Computational Fluid Dynamics; AIAA G-095, Guide to Safety of Hydrogen and Hydrogen Systems; and AIAA R-091A-2020, Calibration and Use of Internal Strain-Gage Balances with Application to Wind Tunnel Testing.

NASA serves as the secretariat for Consultative Committee for Space Data Systems (CCSDS) leading the Spacecraft Onboard Interface Services (SOIS) committee with multiple standards development activities. The SOIS approach is to standardize the interfaces between items of spacecraft equipment by specifying well-defined standard service interfaces and protocols which allow standardized access to sensors, actuators, and generic spacecraft functions, allowing spacecraft applications to be developed independently of the mechanisms that provide these services.

NASA subject matter experts also support IPC—Association Connecting Electronics Industries to ensure that the technical and training requirements in the Space Addendums to IPC documents (e.g., IPC-6012xS, J-STD-001xS, and IPC/WHMA-A-620xS) continue to meet or exceed the baseline requirements of equivalent NASA specifications. NASA continues to participate in re-registration audits for ISO 9001 Quality Management Systems, in ISO 14001 Environmental Management Systems inspections and compliance activities, and in OSHA's Voluntary Protection Program (VPP) assessments. Various other audits and follow-ups included internal quality, safety, environmental, and health inspections, including those for explosives, pressure vessel systems, propellants, pyrotechnics, radiation, environmental compliance, and occupational health.

NASA expertise and experience will or is expected to be used in the assessment of national and international commercial human spaceflight standards, though the maturity of these standards is still in early stages of development. Current NASA documentation exists as Commercial Crew and Human Landing System (HLS) requirements documents.

Standards are critical in defining engineering, safety and mission assurance, and health and medical requirements for NASA missions. These technical standards include, but are not limited to, VCS cited in NASA directives and technical standards, other government agency standards, NASA technical

standards, NASA-endorsed standards, and related standards information such as lessons learned and application notes relative to specific standards. Access to authorized personnel Agency-wide is provided to over 32 VCS Standards Developing Bodies via subscription and on a pay-per-document basis with the capability to order additional standards as the need arises.

Evaluation of the effectiveness of this policy and recommendations for any changes:

OMB Circular No. A-119 is effective, and NASA has no recommendations for change.

2. Please list the government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards during FY 2024. Please note that GUS which are still in effect from previous years should continue to be listed, thus the total number in your agency's report will include all GUS currently in use (previous years and new as of this FY):

This agency reports voluntary consensus standards usage on a categorical basis. The list of NASA Technical Standards is listed on the NASA Technical Standards Webpage: NASA Technical Standards | Standards

U.S. Nuclear Regulatory Commission Fiscal Year 2024 Agency Report

1. **Please provide a summary of your agency's activities undertaken to carry out the provisions of OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities" and the National Technology Transfer and Advance Act (NTTAA). The summary should contain a link to the agency's standards-specific website(s) where information about your agency's standards and conformity assessment related activities are available.**

   The U.S. Nuclear Regulatory Commission (NRC) uses voluntary consensus standards as an integral part of our regulatory framework. Standards contain technical requirements, safety requirements, guidelines, characteristics, and recommended practices for performance. The benefits of being actively involved in developing and using standards include improved safety, cost savings, improved efficiency and transparency, and regulatory requirements with high technical quality. Some standards are incorporated by reference into NRC regulations. The NRC's regulations may be found at Regulations (NRC, 10 CFR) | NRC.gov. The NRC staff also issues documents providing guidance on acceptable methods for complying with NRC regulations such as Regulatory Guides (RGs). These guidance documents frequently endorse and reference voluntary consensus standards as acceptable methods for compliance with NRC regulations. RGs are cataloged here Document Collections | NRC.gov.

   The NRC implements the Office of Management and Budget Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities," consistent with the provisions of the National Technology Transfer and Advance Act (NTTAA) of 1995 (Public Law 104-113) through formal guidance to the NRC staff. Guidance to the NRC staff on standards work is provided in NRC Management Directive (MD) 6.5, "NRC Participation in the Development and Use of Consensus Standards." MD 6.5 and its associated directive handbook were initially published in 1998 and were revised and reissued in 2016. MD 6.5 describes the NRC's process with respect to the participation in the development and use of consensus standards. This process consists of three primary steps: (1) identifying and prioritizing the need for new and revised technical standards, (2) participating in codes and standards development, and (3) endorsing codes and standards.

   As an initiative to enhance agency use of standards and to exchange standards information with external stakeholders, in September 2024, the NRC hosted the 2024 NRC Standards Forum. The goals of the NRC Standards Forum are to facilitate discussions on codes and standards needs within the nuclear industry and explore how to collaborate in accelerating the development of codes and standards and the subsequent NRC endorsement of codes and standards. Our intent is to shorten the lengthy standards development cycle by encouraging collaboration among stakeholders including researchers producing technical information and standards writers who build upon their findings. The Standards Forum meetings are usually held once a year. A summary and related documents for the September 2024 Standards Forum can be found at 2024 Standards Forum | NRC.gov.

   The NRC is working, and intends to continue working, with multiple standards development organizations to close technical and regulatory gaps through development and application of consensus standards. These standards may be applied to regulatory activities for existing light-water reactors or new nuclear plant designs including

advanced reactor technologies and small modular reactors. Standards continue to provide a critical element in our safety mission. For more information, the NRC website on standards development is at Standards Development | NRC.gov. Additionally, the NRC webpage at the following link, Standards Incorporated By Reference into Chapter I of Title 10 of the Code of Federal Regulations | NRC.gov, provides a list of standards incorporated by reference into Chapter I of Title 10 of the *Code of Federal Regulations*.

2. **Please record any government-unique standards (GUS) your agency began using in lieu of voluntary consensus standards (VCS) during FY 2024. Please note, GUS which are still in effect from previous years should continue to be listed, and you do not need to report your agency's use of a GUS where no similar VCS exists.**

   The NRC has been using the following GUS, prior to FY2024.

   Current total GUS: 2

   (1) Government Unique Standard

   NRC NUREG-1556, "Consolidated Guidance about Materials Licenses" [Incorporated: 2011].

   (2) Government Unique Standard

   NRC NUREG-1736, "Consolidated Guidance: 10 CFR Part 20 — Standards for Protection against Radiation" [Incorporated: 2011].

   Voluntary Standard

   American National Standards Institute (ANSI) N 13.2-1969, "Guide for Administrative Practices in Radiation Monitoring."

   Rationale

   ANSI N 13.2-1969, "Guide for Administrative Practices in Radiation Monitoring," had been endorsed in RG 8.2, with the same title, issued in February 1973. The standard has not been revised since its inception, and it now refers to obsolete technical practices and outdated requirements. Therefore, Revision 1 of RG 8.2, published in May 2011, removed endorsement of ANSI N 13.2-1969. Guidance is now provided through two referenced NRC reports, that could be considered Government-unique standards: NUREG-1556, "Consolidated Guidance about Materials Licenses," and NUREG-1736, "Consolidated Guidance: 10 CFR Part 20 — Standards for Protection against Radiation."