

UNDERSTANDING THE COMMON STANDARDS WORKING GROUP (CSWG)

1. PURPOSE.

1.1. The Department of the Air Force (DAF), the Department of Transportation Federal Aviation Administration (FAA), and the National Aeronautics and Space Administration (NASA) formally chartered the CSWG in 2004 for the purposes of (1) protecting the public and critical assets from hazards associated with space launch and reentry events, and (2) developing and maintaining a stable framework of common safety standards and recommended practices for the space launch industry with appropriate checks and balances, but minimal administrative burden for the U.S. Government and the commercial sector.

1.1.1. Common standards and recommended practices provide economies of scale and transparency that are beneficial to the space transportation industry/enterprise.¹

1.2. The CSWG is intended to provide timely and efficient coordination between the three agencies *without altering or otherwise modifying the roles and responsibilities delineated by statute or national policy applicable to the DAF, FAA, or NASA.*

1.2.1. Therefore, the CSWG functions exclusively as an advisory body, not a decision-making authority for operations authorized or conducted by the DAF, FAA, or NASA.

2. SCOPE OF CSWG ACTIVITIES.

2.1 Common Safety Standards – Public safety-related requirements, the uniform application of which are recognized as necessary for the safety or regularity of space transportation, which are consistently employed and adopted by the DAF, FAA, and NASA in agency-specific regulations for launch and reentry activities.

2.1.1 For example, the FAA codifies common safety standards in 14 Code of Federal Regulations (CFR), advisory circulars, and other identified acceptable means of compliance; at the Eastern Range/Western Range (ER/WR), common safety standards are implemented through DAF or Space Force launch/range safety publications (e.g., appropriate 91-series documents); and for NASA launch and reentry activities, common safety standards are implemented through NASA Agency and local Center policy and requirements documents.

2.2 Recommended Practices – Public safety-related requirements and practices, the uniform application of which are recognized as highly desirable in the interest of safety, regularity, or

¹ Recent National Space Policies have affirmed the value of common standards by e.g. directing “work to establish and/or refine common public safety requirements and other common standards, as applicable, for launches from or reentries to Federal, state, and commercial sites” in 2013 and “effective implementation of best practices, standards, and norms of behavior” in 2020. For example, if an explosive yield model for vehicles propelled by LOX/Methane is adopted as a recommended practice, then it should be acceptable whether the launch occurs from a Federal or a non-Federal site. Note: it is not uncommon for a vehicle to begin operations at a non-Federal site, and then later be used at a Federal site (and vice versa).

efficiency of space transportation, and to which the DAF, FAA, and NASA will endeavor to jointly employ, adopt, and promote.

2.3 Common safety standards and recommended practices (as defined above) that are purely technical in nature are intended to apply across the space transportation enterprise.

2.3.1 Technical aspects of a launch/reentry safety assessment are best addressed using common standards and recommended practices regardless of whether the operation is at a Federal or non-Federal site. However, there are common safety standards that apply uniquely to Federal or non-Federal sites as a policy matter. For example, §450.179 (b)(2) explicitly relieves an operator from the ground safety requirements in §§ 450.181 through 450.189 if the operation is conducted at a Federal launch or reentry site and the operator has a written agreement with the site.

3 CSWG CONSTRAINTS

3.1 The CSWG charter does not support an obligation of funds, nor does it constitute a binding commitment upon the agencies or create any legal rights or obligations for any agency.

3.2 The CSWG functions under the oversight of a Senior Steering Group (SSG), which is made up of the following positions: Chief of Safety, Department of the Air Force (DAF/SE); Chief, Safety and Mission Assurance, National Aeronautics and Space Administration; and Federal Aviation Administration, Associate Administrator for Commercial Space Transportation (FAA/AST).

3.2.1 The SSG implements provisions of the U.S. Space Transportation Policy directing coordination between the DAF, FAA, and NASA to establish common safety standards and recommended practices for space transportation.

3.2.2 Common standards and recommended practices should be applied uniformly to operations authorized or conducted by the DAF, FAA, or NASA unless directed from senior leadership.

3.3 The CSWG is a U.S. Government-only forum, and membership primarily consists of representatives from the DAF, FAA, and NASA organizations responsible for the development and implementation of space launch and reentry safety policy, requirements, procedures and practices.

3.3.1 The CSWG charter calls for United States Space Force (USSF), FAA/AST, and NASA to each assign a CSWG Tri-Chair representative to manage CSWG activities.

3.3.2 The CSWG charter calls for each of the following organizations to provide one or more POCs to support CSWG activities: FAA Office of Commercial Space Transportation, NASA Headquarters Office of Safety and Mission Assurance, NASA Kennedy Space Center, NASA Goddard Space Flight Center/Wallops Flight Facility, USSF Field Commands and range safety offices (e.g., Eastern and Western Range), AF Safety Center (AFSEC) Space Safety Division (SES).

3.3.3 The CSWG is a volunteer organization: (1) CSWG tri-chairs and subgroup chairs have no formal authority to direct any action, and (2) there is no funding earmarked to support CSWG activities.

3.3.4 CSWG activities are generally constrained by resource limitations.

3.4 Each member must take appropriate measures to protect proprietary, privileged, or otherwise confidential information obtained or exchanged as a result of CSWG activities. However, the information and data exchanged in support of CSWG activities are exchanged without use and disclosure restrictions, unless required by law in accordance with restrictive markings on the information or data.

3.5 CSWG members may or may not consult with the CSWG on any matter related to common standards and recommended practices, for example to seek a consensus opinion on if an approach is consistent with current standards or practices.

4 CSWG CAPABILITIES

The CSWG demonstrated a capability to:

4.1 Provide an efficient interagency review of performance based common standards during the development of 14 CFR Part 450 and associated advisory circulars.

4.2 Provide guidance on the proper implementation and tailoring of safety standards and recommended practices with respect to highly reliable flight safety systems.

4.3 Monitor decisions and analyze trends regarding requests for relief from common safety standards.

4.4 Consult on the efficacy of new concepts and complex practices intended to demonstrate compliance with common safety standards, e.g. on probability of a launch failure and the explosive hazards of a new propellant.

4.5 Eliminate conflicts with respect to duplication of approvals for safety services performed by the range (see Appendix A of the charter).

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