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Committee D02 on PETROLEUM PRODUCTS AND LUBRICANTS

COMMITTEE D02

COORDINATING SUBCOMMITTEE 95 (CS 95) ON TERMINOLOGY

TERMINOLOGY HARMONIZATION PROTOCOL

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INTRODUCTION

From its humble beginnings late in the 19th century as the American Section of the International Association for Testing Materials, ASTM International has become one of the world's largest standards developing organization. ASTM International provides a forum where producers, users, consumers as well as those with general interest can meet to develop consensus based standards. With over 140 standards-writing technical committees, ASTM publishes standard test methods, specifications, practices, guides, classifications and terminologies that cover a significant range of industries and their products. With over 32,000 volunteer members that represent 125 countries, ASTM produces over 11,000 standards a year that are distributed and used worldwide.¹

In order to ensure that all ASTM standards are written in a uniform, consistent and understandable manner, the ASTM Board of Directors commissioned the creation of the *Form and Style for ASTM Standards (Blue Book)*. The *Regulations that Govern ASTM Technical Committees* (§10.7), requires that the most current edition of the *Form and Style for ASTM Standards* be followed in the writing of new standards, revisions to standards, and reapprovals of standards.

For those unfamiliar with the *Form and Style for ASTM Standards*, this document consists of eight lettered sections. Parts A, B, C and E are devoted to the six major types of ASTM standards: test methods, specification, classifications, practices, guides, and terminologies.² Although not mandatory, terminology is an important part of an ASTM standard especially where terms may have a more specialized or restrictive meaning in the standard to ensure proper use and execution of the standard. Section A.7 contains a brief discussion regarding terminology and how it is used for test methods, specifications and other ASTM standards. However, a more in-depth and detailed discussion regarding terminology is presented in *Part E of the Form and Style Manual for ASTM Standards* which provides detailed guidance on the policies, rules, and recommendations governing the principles, form and presentation of definitions.

ASTM International recognizes that in order for terminology to be used effectively in written standards it needs to be used consistently. ASTM standard terminology is written in a manner to promote and support three objectives: (1) the precise understanding and interpretation of ASTM standards; (2) the standardization of terminology in standards, reports, and other technical writings; and (3) the explanation of the meanings of technical terms for the benefit of those not conversant with them. Each ASTM technical committee is responsible for managing terminology used in all standards within its jurisdiction. *Part E, Terminology in ASTM Standards*, was written to provide uniform guidance to all technical committees as well as those groups and individuals who are tasked to review the work of technical committees regarding the principles of terminology.

¹ History and Organization of ASTM, ASTM Technical Committee Officer Handbook, 5th Edition page 1.

² Standards Development, ASTM Technical Committee Officer Handbook, 5th Edition page 61.

According to *Committee D02 Bylaws* approved March 3, 2009 by *COTCO*, Article 2.1 details the responsibilities of *Committee D02* as “[t]he promotion of knowledge and the promulgation of standard specifications, classifications, test methods, practices, guides and *terminology* in the following technical fields: liquid fuels; liquid and semi solid lubricants; hydraulic fluids, gaseous or liquid hydrocarbons and mixtures of hydrocarbons; petroleum coke, industrial carbons and industrial pitches; petrolatum and petroleum waxes; additives and other substances which affect the product character of fuels lubricants, or other products within the scope of the committee.” In the organization and management of *Committee D02*, the Executive Committee has assigned *Coordinating Subcommittee (CS) 95 on Terminology* the responsibility of managing the usage of terminology and ensuring that all terminology complies with the strict guidelines detailed in the *Form and Style for ASTM Standards Part E* as is reflected in the *Subcommittee Titles and Scope Statements*.

The range of responsibilities and support activities of the Coordinating Subcommittee – 95 as described in *D02 Petroleum Products and Lubricants “Subcommittee Titles and Scope Statements”* include the following: 1) The promotion of knowledge related to terminology; 2) To promulgate and maintain definitions of terms, description of terms, symbols, and acronyms or abbreviations for D02 terminology standard *D 4175*; 3) To provide assistance to other D02 Subcommittees (members) in framing definitions in a format consistent with the *ASTM Form and Style Manual (Blue Book)* for standards under their jurisdiction; 4) To coordinate and/or harmonize those definitions for terms common to Subcommittees in cooperation with them; 5) To coordinate and/or provide input into standard terminology development with terminology groups outside of ASTM D02.

Ultimately, the job of Coordinating Subcommittee-95 is to support the activities of *Technical Committee D02 on Petroleum Products and Lubricants*, in order to provide the most up to date, logical and comprehensive source of terminology for use in all D02 standards.

FORM AND STYLE MANUAL FOR ASTM STANDARDS

NEW TERMS AND DEFINITIONS

(Excerpted from *Form and Style for ASTM Standards*, March 2010, Section A7)

An ASTM test method, specification or other type of ASTM standard may contain terminology that is more specialized or restrictive than the common dictionary meaning which is necessary for the concise description, understanding, or execution of the document. In order to ensure uniformity, consistency and usability of an ASTM standard, Section A7 of the Form and Style Manual for ASTM Standards provides general guidance on how to prepare a Terminology Section where specialized or restrictive terms necessary to the successful operation of the document can be maintained and managed.

A7.1 Every standard should include a section on terminology.

A7.1.1 All significant terms that may have a meaning more specialized or more restricted than the common dictionary meaning should be defined within a standard, or the terminology standard should be referenced. (See Part E on Terminology.)

A7.1.2 To avoid redundant definitions, check the committee terminology standard, terminology sections within committee technical standards, and the *ASTM Online Dictionary of Engineering Science and Technology*.

CS-95 Point of Clarification to A7.1.2

If the user finds a suitable term within the *ASTM Online Dictionary of Engineering Science and Technology* and chooses to use that definition instead of a definition found in the committee terminology standard that standard must indicate by attribution its source and then the term and definition must comply with *Form and Style Guide for ASTM Standards Parts E4 and 5*. Definitions from the committee standard do not require attribution.

A7.2 *Terminology Within a Standard*— This section may include paragraphs on definitions, definitions of terms specific to a standard, symbols, abbreviations, acronyms, discussions, or a combination thereof.

A7.2.1 *Definitions*— Write a definition in the dictionary-definition form and assign a section number, term, part of speech, definition, and, when applicable, a delimiting phrase. Italicize the term, part of speech, and delimiting phrase. Do not capitalize the term or any other components of the definition except for proper nouns, acronyms, or any other words capitalized in normal usage (see Section E4). List the terms in alphabetical order.

CS-95 Point of Clarification to A7.2.1

If a delimiting phrase is used the resulting definition is limited to the standard in which it appears

Example follows:

3. Terminology—(Always use as the main heading.)

3.1 Definitions:

3.1.1 color blindness, n—total or partial inability to differentiate certain hues.

3.1.2 Transmittance, n—of light, that fraction of the incident light of a given wavelength which is not reflected or absorbed, but passes through a substance.

*A7.2.2 Discussions—*When more detail of the concept being defined is desirable, supplementary information should be added as a separate numbered paragraph labeled “Discussion” immediately following the definition. Use the term “Discussion” instead of “Note” (see E5.8).

CS-95 Point of Clarification to A7.2.2

If a discussion is added the definition it is limited to the standard in which it appears and will not be transferred to the committee terminology standard

Example follows:

3.1.2.1 Discussion—Extraneous leakage is the sum of all leakage other than that intended to be measured by the test. E283

A7.2.3 Definition(s) of Term(s) Specific to This Standard— This is a term that is specific to the standard in which it is used and that has no FORM OF ASTM TEST METHODS application out of that context. Write a definition of term specific to a standard in the dictionary definition form and include a section number, term, part of speech, definition, and, when applicable, a delimiting phrase. Italicize the term, part of speech, and delimiting phrase. Do not capitalize the term or any other components of the definition except for proper nouns, acronyms, or other words capitalized in normal usage (see Section E4). List the terms in alphabetical order.

CS-95 Point of Clarification to A7.2.3

If a definition for a term is specific to a standard, it is limited to the standard in which it appears by definition and will not be transferred to the committee terminology standard nor can it be used in any other standard.

Example follows:

3.1 Definition of Terms Specific to This Standard:

3.1.1 batch sampling, n—sampling over some time period in such a way as to produce a single test sample for analysis. D4175

*A7.2.4 Symbols—*In a standard with numerous equations containing identical quantity symbols, symbols may be listed alphabetically and unnumbered in this section instead of under each equation; also italicize the symbol and do not capitalize the definition. (See also Section E6.)

Example follows:

3.1 Symbols:

A = cross-sectional area of specimen

B = normal induction

A7.2.5 Referencing Terminology Standard— If the terminology applicable to the standard is included in a terminology standard, cite the applicable terminology standard.

Example follows:

3.1 Definitions:

3.1.1 For definitions of terms used in this test method, refer to Terminology D1129.

FORM AND STYLE MANUAL FOR ASTM STANDARDS

PART E – TERMINOLOGY OF ASTM STANDARDS

(Excerpted from *Form and Style for ASTM Standards*, March 2010, Section A7)

ASTM standard terminology is written to promote three objectives: (1) precise understanding and interpretation of ASTM standards, (2) standardization of terminology in standards, reports, and other technical writings, and (3) explanation of the meanings of technical terms for the benefit of those not conversant with them.

For terminology to be effective, it should be used consistently. It is, therefore, the responsibility of each technical committee to manage terminology usage in all standards for which it has jurisdiction to ensure that usage is consistent both within the committee and the Society. Part E provides guidance to technical committees and to those who review the work of technical committees regarding the principles of terminology.

E1. Terminology Management

E1.1 In ASTM International, technical committees are responsible for defining terminology within technical standards and for developing terminology as a type of standard. Terminology ensures precise interpretation of ASTM standards and explains technical terms for the benefit of users who are not conversant with the language of the standard. Use terminology that is clear, explicit, and not liable to misinterpretation when referred to in technical operations, commercial contracts, or legal proceedings.

E1.2 Terminology in a technical standard may include *definitions of terms* and *definitions of terms specific to a standard* and explanations of *symbols*, *abbreviations*, and *acronyms* that are necessary for the reader to understand that particular standard.

E1.3 All technical standards should contain a *Terminology* section that includes *definitions of terms* or *definitions of terms specific to a standard*, or both. Reference to a related terminology standard(s) can be sufficient for this section.

E1.4 All technical committees should develop and maintain a general terminology standard. Terminology, as a type of standard, is comprised of *definitions of terms* and explanations of *symbols*, *abbreviations*, and *acronyms* pertaining to the scope of a technical committee or a specialized field within the committee.

E2. Definitions of Terms and Definitions of Terms Specific to a Standard

E2.1 The distinction between *definitions of terms* and *definitions of terms specific to a standard* is related to the degree of application. If a term has a meaning more specialized than its common language dictionary explanation, is used by two or more subcommittees within a committee, or appears in several standards, it is labeled as a *definition of a term*. When the term is limited in application to the standard in which it needs to be defined, it is labeled as a *definition of a term specific to a standard*. *Definitions of Terms* and *Definitions of Terms Specific*

to a *Standard* appear in separate subsections within the *Terminology* section of a technical standard. Since *definitions of terms specific to a standard* have limited application, they do not generally appear in a technical committee's general terminology standard.

E2.1.1 An example of a *definition* is:

X.x **dolly**, *n*—a low platform or structure mounted on wheels or casters, designed primarily for moving bulky loads for short distances. (Compare **pallet**) **D996**

E2.1.2 An example of a *definition specific to a standard* is:

X.x **standard**, *n*—as used in ASTM International, a document that has been developed and established within the consensus principles of the Society and that meets the approval requirements of ASTM procedures and regulations. **Form and Style for ASTM Standards** E-1

E3. Guidelines for Writing Definitions of Terms and Definitions of Terms Specific to a Standard

E3.1 Use these guidelines when writing both *definition of terms* and *definitions of terms specific to a standard*.

E3.2 Prepare a definition when:

E3.2.1 Any term used in a standard is essential to the interpretation and application of the standard;

E3.2.2 A term used in a standard is not adequately defined in common language;

E3.2.3 Using qualitative adjectives and nouns that *could* be taken to denote or connote an *absolute, unqualified, or unconditional* property or capability; for example: *waterproof, stainless, unbreakable, vapor barrier, gas-free, flat, safe, rigid, pure*. Such qualitative adjectives and nouns shall not be used unless *actually used and defined* in their absolute sense;

E3.2.4 Describing a *quantitative determinable* property or capability that might cause misinterpretation or confusion; for example: *strong, high, accurate, clean*. E3.3 Do not develop a definition when:

E3.3.1 A term is adequately defined in a dictionary (unless a definition is required for clarity);

E3.3.2 A term has a well-recognized authoritative meaning such as terms defined in the International System of Units (SI);

E3.3.3 A term is defined acceptably for the committee's purposes in the *Compilation of ASTM Standard Definitions* or the committee's terminology standard;

E3.3.4 A term that meets the committee's needs has been defined in a technical standard of another committee or subcommittee.

E4. Form of a Definition

E4.1 Write *definitions of terms* and *definitions specific to a standard* in the dictionary definition form. Include term, part of speech, definition, and, when applicable, a delimiting phrase (see E5.5).

E4.2 Describe the essential characteristics of the term. Keep it simple. Do not include irrelevant details such as how things are made, used, or measured.

E4.3 State the definition without repeating the term defined. Use language that is understandable to non-experts.

E4.4 Complete the definition in one sentence. If two or more phrases are needed to state the meaning, connect them with semicolons. Include any necessary supplementary information as a Discussion.

E4.5 The term and its elements should appear in the following order: term; abbreviation; symbol; dimensions of quantities, measurement units; part of speech; delimiting phrase; statement of meaning, including specification limits where applicable; cross-references to synonyms or related terms; attribution.

E5. Elements of a Term

E5.1 *Abbreviations*—For terms usually represented by an abbreviation, place a comma and the preferred abbreviation following the term, and then the part of speech, for example:

average, *avg*, *n*—

E5.2 *Symbols*— For terms usually represented by a letter symbol, place a comma and the preferred symbol following the term, and then the part of speech, for example:

ampere, *A*, *n*—

E5.3 *Dimensions of Physical Quantities*— If the term represents a physical quantity, state its analytical dimension in italics in square brackets immediately following the letter symbol, or if there is none, following the term itself, for example:

critical height, Hc[L], *n*—*in earth grading*, the maximum height at which a vertical or sloped bank of soil will stand unsupported under a specific set of conditions. **D653**

E5.4 *Parts of Speech*—Including the part of speech enables the user to distinguish between closely allied terms; for example:

flame resistance, *n*—the ability to withstand flame impingement or give protection from it. **176**
flame resistant, *adj*—having flame resistance **E176**

E5.5 *Delimiting Phrases*— If a term has different meanings in other technical fields or contexts, include an italicized phrase that delimits the definition to its field of application. This

phrase should follow the dash and be separated from the basic statement of meaning by a comma, for example:

beam, *n*—*in a balance*, the horizontal pan support.

beam, *n*—*in a building*, a horizontal load-carrying structural member of the building frame.

beam, *n*—*in optics*, a concentrated unidirectional flow of radiant energy. **E284**

E5.6 Specification Limits— If a definition involves specification limits applicable only to a specific standard (for example, in defining plate by specifying a thickness range), make the term specific to that standard. If, however, it is intended that this definition be broadly accepted within a specific technical committee or within ASTM International, delimit its scope, for example:

plate, *n*—*aluminum products*, a rolled flat product of thickness 6.4 mm (0.25 in.) or greater.

E5.7 Cross-references— Cross-references bring together related terms and narrower terms of a given genus. A cross-reference may take the place of a definition, or it may be appended to a definition to draw attention to related definition, for example:

flat-bed—see **truck**.

E5.8 Discussions— To fill in more detail of the concept being defined, supplementary information may be added as a separate discussion immediately following the definition, for example:

3.1 **builder's model**, *n*—a reference standard of quality for specific building components, denoting, by example, the level of quality adopted by a builder.

3.1.1 **Discussion**—The examples or samples of construction material, permit examination of quality level. **E631**

E5.9 Attributions— If an existing definition is adopted from another source (another technical standard, a manual, a dictionary), copy it exactly and identify the original source in a boldface notation at the right margin following the definition.

E5.9.1 Notify Headquarters that permission to publish shall be obtained from the organization holding copyright. The definition shall not be published without permission.

E6. Use of Symbols, Acronyms, and Abbreviations as Terminology

E6.1 In standards containing numerous symbols, acronyms, or abbreviations, these items may be listed under the appropriate subheading as a convenience to the user of the standard.

E6.1.1 Symbols— Alphabetically list the symbols. Do not assign a number or capitalize the explanation, for example:

X.x Symbols:

A = cross-sectional area of specimen

B = normal induction

E6.1.2 *Acronym*— An acronym is a shortened form of a compound term that uses the initial letters of the term to make a pronounceable word. Alphabetically list, and capitalize the acronyms. In a few cases acronyms are written in lower case, such as laser and sonar. Do not capitalize the explanation unless it is a proper noun, for example:

X.x *Acronyms:*

X.x.1 *PERT*, n—*program evaluation and review technique*

X.x.2 *radar*, n—radio detecting and ranging

E6.1.3 *Abbreviations*—An abbreviation is a shortened form of a compound word or phrase. List the abbreviations alphabetically. Do not include abbreviations appearing in Section G3. Do not capitalize the explanation unless it is a proper noun, for example:

X.x *Abbreviations:*

X.x.1 *assn*—association

X.x.2 *avg*—average

REVIEW OF EXISTING TERMS AND DEFINITIONS

Introduction

The goal of CS 95 is to provide *Committee D02 on Petroleum and Lubricants* with its various subcommittees a complete and usable terminology standard as embodied within D 4175. A review of existing terms and definitions may reveal an opportunity for improvement.

Procedure³

A suggested protocol for determining if terms require review is provided below. Some of the modifications may be within the same subcommittee, and some changes may involve two or more separate subcommittees. Changes that involve more than one subcommittee will require a cooperative effort by all.

Review Protocol:

1. Same terms with similar or slightly different definitions.
2. Same terms with totally different definitions.
3. Long definitions with redundant wording.
4. Long discussions that are redundant or do not contribute useful information to the definitions (this type of explanatory information may be better suited to an appendix or annex in the technical standard).

For further clarification, the user should remember that “*Form and Style for ASTM Standards,*” provides the reader two areas of guidance regarding terminology; in Part A7 and Part E.”

Ballot Changes to the Technical Standard:

Options include:

1. Deleting a definition altogether in favor of using another definition from D 4175.
2. Consolidating two definitions into one that all affected subcommittees will use.
3. Rewording a definition to specifically show how it differs from other similar definitions by using a delimiting phrase (appears in italics after the term and before the definition) or a discussion (appears indented and after the definition).
4. Keeping your definition as is. This would mean that your definition was the favored definition by all involved.

³ Presented to D02 Exec in December 2008 and reviewed by Nicole Baldini

Definitions are added into D4175 in one of two ways:

1. CS 95 prepares a ballot of new definitions, and these go through the consensus and approval process. When added into D4175, this constitutes a revision, and the year date is changed. (For example, D4175-09.)
2. Every year, before preparing the Volume 05 books for production, ASTM Editorial Staff includes any new or revised definitions from the technical standards since the last book publication. These new definitions are added with an editorial note on page 1 of the standard, and an epsilon is added after the year date. (For example, D4175-08b^{ε1}.)

While performing this review, please consider the worth of keeping the source standards listed in D4175. (Source standards appear in boldface at the end of each definition or discussion to indicate where the definition originated.)

Please contact the Chairman of CS-95 if you need any assistance.

BALLOTING PROCESS

A. Terminology Harmonization of a term(s) within the same subcommittee:

1. Register Work Item(s), provide sufficient information that describes the intent and preferred method of processing the term(s).
2. Coordinate within subcommittee an agreement to terminology in preparation for a Subcommittee ballot.
3. **BALLOTING:** Request ASTM to process a Subcommittee ballot for term(s) to be defined. If the same term/definition is to be included in multiple standards, and intent is to have each standard contain same terminology, then provide a cover letter for each standard to be balloted explaining intent of the ballot. Consult ASTM staff for language to be used in the ballot cover letters. When submitting the ballot items to ASTM, provide an explanation to ASTM staff that the standards are to be linked together when balloting. This linkage will process the terms together through completion of balloting. (If a negative received on one standard then all of the linked standards identified in the ballot will be held until resolution of negative(s). Thus all moves forward together through balloting or are removed from ballot together). Upon completion of the subcommittee ballot the item(s) will proceed to Main Committee Ballot and linkage to the standards will be maintained.
4. If necessary contact Subcommittee 14 Secretary to assist in the coordination and movement of the ballot.

B. Terminology Harmonization of a term(s) between two or more subcommittees and/or committees:

1. Register Work Item(s), provide sufficient information that describes the intent and preferred method of processing the term(s).
2. Coordinate amongst subcommittees an agreement to terminology in preparation for a Subcommittee ballots.
3. **BALLOTING:** Request ASTM to process a Subcommittee ballot for term(s) to be defined to each subcommittee. If the same term/definition is to be included in multiple standards, and intent is to have each standard contain same terminology, then provide a cover letter for each standard to be balloted explaining intent of the ballot. Consult ASTM staff for language to be used in the ballot cover letters. When submitting the ballot items to ASTM, provide an explanation to ASTM staff that the standards/ballots are to be linked together when balloting. This linkage will process the terms together through completion of balloting. (If a negative received on one standard in a given subcommittee ballot then all of the linked standards identified in the other subcommittee ballots will be held until resolution of negative(s). Thus all moves forward together through balloting in all subcommittees or are removed from ballot

together). Upon completion of the subcommittee ballots the item(s) will proceed to Main Committee Ballot and linkage to the standards will be maintained.

4. If necessary contact Subcommittee 14 Secretary to assist in the coordination and movement of the ballot.