# ASC Z136 Conventions

(Revised: 1 July 2009)

**These conventions serve as a guideline to some of the internal procedures that ASC Z136 observes as part of its standards development operation. For more in-depth information on the Z136 committee process, please see the current version of** *Accredited Standards Committee Z136 on the Safe Use of Lasers Procedures for the Development of Z136 American National Standards,* **which is available at http://www.z136.org/modules.php?name=Downloads&d_op=viewdownload&cid=1**

## 1. Annual meetings

In the off-years, when the Z136 Annual Meeting of the Committee does not take place in conjunction with another major meeting, e.g., ILSC, IEC TC-76, the subcommittee chairs shall poll their subcommittees and make an effort to hold meetings of their subcommittees in conjunction with the Z136 Annual Meeting. The subcommittee meetings should take place before the Committee meets.

## 2. Distribution of documents for ballot

The following documents should be posted at the appropriate password protected portion of the Z136 website during balloting:

- **Initial Ballot:** 1) The draft standard in MS Word, Adobe, or a similar format; 2) The Comment Matrix in MS Word format. For convenience of the ballot group members and the ballot resolution group, the drafts should be in single column format and the lines numbered at the left margin. It should be made clear to the balloting group that only comments submitted on the comment matrix will be considered, i.e., edited versions of the draft will not be accepted.
- **Recirculation Ballot:** 1) A clean copy (no changes shown) of the revised draft with all changes resulting from ballot resolution incorporated (MS Word, Adobe PDF or similar format); 2) A marked copy of the revised draft with all changes readily identifiable, e.g., in color using the MS Tracking Editor, or in black and white using strikethroughs for deleted text and underlined bold for new text; 3) The Comment Matrix in MS Word format.

## 3. Recirculation ballots

The purpose of an SCDV or CDV recirculation ballot is to show all substantive changes to a balloting draft to afford members of the Balloting Group an opportunity to reaffirm or change their vote or provide comments. These changes may result from resolution of negative ballots or incorporation of comments provided with affirmative ballots that result in substantive changes to the balloted draft (SCDV or CDV). Comments submitted in response to a recirculation ballot on an SCDV or

CDV should address only substantive changes to the prior balloted draft (initial or recirculation ballot draft), i.e., comments (or changed votes) should only be submitted based on the changed portions of the standard, or on unresolved negatives. Comments should not be submitted or votes changed based on an approved clause unless that clause is affected by changes resulting from ballot resolution. New issues should be deferred to the next revision.

If during a recirculation ballot, errors in that draft are pointed out that require substantive changes to correct, the modified draft should be recirculated – even if the results of balloting were 100% affirmative. That is, no draft should be moved up to the next level without members of the balloting group seeing all substantive changes to the draft.

Members of a balloting group only need to respond to a recirculation ballot if they wish to comment or change their earlier votes; if a member does not return a ballot, his or her vote will be considered to be reaffirmed. The number of recirculation ballots does not have a specific limit; the goal is to have the most mature and error-free document following balloting.

## 4. Number of simultaneous ballots

When possible, no more than one SCDV or CDV ballot on a new standard or revision should be conducted during the same time period, i.e., simultaneous balloting on a number of standards is discouraged. However, ballots on administrative issues, e.g., membership, procedures, can take place simultaneously and during an SCDV or CDV ballot.

## 5. Summary of changes in a revised standard

A short summary of the major changes between a prior standard and the revised standard should be incorporated into the published version of a revision, either as an informative annex or, if the summary is not extensive, in the front matter of the standard. If the summary is to be included as an informative annex, it should be included during SCDV and CDV balloting. If the summary is to appear in the front matter of the revision, a more detailed summary of the major technical changes should be provided to the balloting group in the form of a separate list.

## 6. Use of scientific notation in standards

There is no hard and fast rule for the use of scientific notation in standards – common sense and the stylistic tastes of the authors should be the guide. Generally, however, small numbers should be written out, e.g., 208, 3000, 24 000; numbers with more than 5 or 6 digits, depending on the number of significant figures, should be written in scientific notation. Context, of course, should also be considered. For example, within a table it usually would not make sense to have a mix of the two.

## 7. Equations

An upright (roman) type shall be used for unit symbols, even when the surrounding text is in a sloping font. In general, unit symbols are lowercase letters, except for a very few that use special signs (such as ° for degree). If, however, the symbol is for a unit whose name is derived from a proper name (e.g., James Watt), uppercase upright type is used for the first letter, i.e., W.

A multiplication sign (×) or a dot (·) should be used to indicate multiplication of numbers and numerical values, including those values with units. The general rules regarding the use of upright and sloping (italic) type in equations are as follows:

Symbols for units of measurement, mathematical constants, specific mathematical functions, operators, and numerals are printed in upright type, i.e.,

- m – meters
- e – base of natural logarithms
- sin $x$ – sine of $x$

Quantity symbols (including the symbols for physical constants), subscripts or superscripts representing symbols for quantities, mathematical variables, and indexes are set in sloping type, i.e.,

- $E_0$ – Emergent beam radiant exposure
- $L_e$ –Radiance of an extended source

Subscripts and superscripts are governed by the above principles. Those that are letter symbols for quantities or for indexes are printed in sloping type, while all others are printed in upright type, i.e.,

- $E_r$ – Radiant exposure at distance $r$
- $E_{avg}$ – Average radiant exposure

## 8. Posting subcommittee working group drafts of standards

Working group drafts of each standard should be posted on the password-protected portion of the subcommittee's web page for access by the working group (subcommittee). Revisions of drafts by the Editorial Working Group (EWG) should be maintained on the password-protected portion of the EWG web page along with each of the reviewer's comments, edited (marked-up) drafts, etc. The working group members should be notified immediately after posting that the draft is available for downloading.

## 9. Identification of Drafts

The date and number of draft standards should appear on each page at the right side of the header, e.g., **Draft 1.1: 10 November 2007**. In addition, the number of the

standard should appear on each page at the left side of the header, e.g., **Revision of Z136.1-2007**.

## 10. Interpretations

As indicated in the ASC Z136 Procedures, "Written inquiries judged to be bona-fide interpretations are forwarded by the Secretariat to the Chair of the appropriate subcommittee for processing. The Subcommittee Chair shall obtain concurrence by two-thirds affirmative vote from their associated subcommittee for the response. This response, along with balloting results, is then submitted to the Secretariat (with copies to the ADCOM Chair and Committee Secretary). The Secretariat shall provide the formal interpretation to the requestor and document the process as required by these procedures."

The proposed interpretation response shall be concluded within three months of notification of the interpretations request by the Secretariat.

In order to expedite the process, the subcommittee chair should designate an interpretations working group to prepare the response. Once a response is prepared, a vote on the proposed response shall be taken by the working group in accordance with ASC Z136 procedures. Following resolution of comments by the working group, a final draft for subcommittee ballot shall be prepared. The final draft response shall be approved by the full subcommittee in accordance with the Z136 consensus process, which shall include attempts to reconcile negative ballots.

As a courtesy, the preliminary response may be sent to the requestor. If the requestor submits comments on the preliminary response within 15 days of the date that the proposed interpretation is sent to the requestor, the interpretations working group shall consider the comments and respond to the requestor.

The final interpretation shall be transmitted to the AdCom and the Secretariat together with a list of the members of the designated interpretations working group. Following AdCom review, the Secretariat shall forward the interpretation to the requestor. Interpretations of Z136 standards shall be posted on the Z136 website until the next amendment or revision of the standard is published.

If the subcommittee is unable to reach consensus on an interpretation, the Secretariat can respond to the requestor that an interpretation will not be forthcoming on this matter. It should be noted that all interpretations and any interpretation requests that cannot be achieved should be considered during the next revision cycle of the standard.

## 11. Dated and/or undated reference to other standards

Undated reference to standards helps eliminate the burden of continuous updates to align standards as they are revised while ensuring that the most up-to-date information is referenced. Undated reference should only be used when referring to the broad subject matter or scope of a standard, e.g., "see Z136.3 for information on the safe use of lasers in healthcare facilities," "see Z136.1 for MPEs for the eye and

skin." Dated reference to standards should be used when a high degree of specificity is needed, i.e., reference to specific clauses or subclauses, tables, and figures of another standard, e.g., "see Example B7.2 in Z136.1-2007," "…requires the use of a limiting aperture diameter of 7 and 3.5 mm for the eye and skin, respectively (Z136.1-2007)." The following footnote should be included with the first reference to another standard:

"Reference to an undated standard means reference to the latest revision of that standard."

## 12. Notes and footnotes

- **Notes:** Explanatory statements may be used in the text for emphasis or to offer informative suggestions about the technical content of the standard. These notes provide additional information to assist the reader with a particular passage and shall not include mandatory requirements. A note should follow that paragraph to which it belongs, and shall be set apart from the text by introducing the statement with the capitalized word "NOTE—." Within each section, multiple notes in sequence should be numbered "NOTE 1—", "NOTE 2—", etc.

  "Note that" is normative and is translated to mean "pay special attention to." "Note that" is usually part of a paragraph while "NOTE—" is set apart as its own paragraph.

- **Footnotes:** Footnotes in text may be included in a standard only for information, clarification, and/or aid applicable to the use of the standard. Mandatory requirements shall not be included in text footnotes because these footnotes are not officially part of the standard. Note that footnotes to tables and figures follow different rules (see below) and may contain normative information.

- **Notes and footnotes to tables:** A note to a table is informative. A footnote to a table is normative. A note to a table should immediately follow the table to which it belongs. If the text is mandatory, it should appear in the body of the standard or in a footnote to the table. General notes apply to the entire table and should be introduced by "NOTE—" set in upright capital letters. Specific notes should detail specific material or parts of the table and should also be introduced by "NOTE—" set in upright capital letters. Multiple notes in sequence should be numbered "NOTE 1—", "NOTE 2—", etc.