SSC Checklist

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</table>

1. FORMAT

General formatting

Document should be free of excessive formatting and as simple as possible. Minimal formatting per the guidelines below will help with readability.

- Page size is 8.5”X11”
- Margins are 1” on all sides
- All text is **Times New Roman** font
- All equations are **Cambria Math font**
- All font, including clauses and titles are **12 points**
- Body text and clauses are **justified left**
- Lines are **single-spaced**
- **One space** used after a sentence
- Text color is **black**
- **Line Numbers** are continuous
- **Page numbers** in the footer of all pages
- **Track Changes** is used for any changes to the text
- Footer includes **draft number and date**
- Draft does not include cover, front matter, or formatted table of contents or index.

Clauses & sub-clauses

For readability, clauses and sub-clauses may be **bold**. Do not use MS Word heading styles.

- Clauses and sub-clauses are bold, 12 pt., **Times New Roman** font
- Clause numbers and sub-clause numbers are consecutive (no missing numbers)
- All sub-clauses are followed by at least one other sub-clauses of the same level (for example, 1.1 should only exist if there is a 1.2)
- Level 1 and level 2 clauses are followed by text that begins on a new line.
- Level 3+ clauses are followed by text beginning on the same line.

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1. General
Example text.

1.1 Scope
Example text.

1.2 Application
Example text.

1.2.1 Types. Example text.

1.2.2 Hazards. Example text.
Definitions
Definitions always appear in section 2 of an American National Standard.

- Terms are lower-case and end in a period.
- Terms are title-case if a proper noun
- Terms are bold
- Definitions are sentence case, not bold.
- Each term has a hanging indent (0.25”)
- Abbreviations are in parentheses following the term.
- Terms are in alphabetical order

accessible emission limit (AEL). The maximum accessible emission level permitted within a particular laser hazard class.

Examples

- Example labels are bold and italic
- Example text is bold
- Begin on the same line as the label
- Text following the example is bold

Example 1. The optical density is…

Notes

- Never bold or italic
- Always informative
- Never mandatory (no “shall”s)
- Multiple notes in sequence are numbered
- "NOTE" is uppercase
- "NOTE" is followed by an em-dash (ctrl+alt-)
- Each note immediately follows the table, figure, or paragraph to which it belongs.

NOTE—This is a note.

NOTE1—This is the first note.

NOTE2—This is the second note.

Solutions & Steps

- Solution label is bold, followed by a period
- Step label is bold and numbered
- Step number is followed by a period
- Text following step or solution is on the same line
- Text following step or solution is not bold

Solution. The MPE for a single 100 fs (100 × 10^{-15} s) pulse at

Step 1. Determine and evaluate the NHZ of…

Step 2. Determine the extent of…

Rules

- Rule number and label are bold
- Number followed by a period
- Text following is not bold.

Rule 3. Pulse Correction Factor, C_P. C_P does not apply for corneal exposure.
Lists
- List level 1 uses lowercase letters followed by a parenthesis
- List level 2 uses an Arabic numeral followed by a period
- List level 3 uses a lowercase roman numeral followed by a period
- Lists (except prioritized lists) cascade
- The first word of each list is capitalized
- Each item ends in a period

Footnotes
- Text body
  - Informative
  - Never include mandatory requirements
- Tables & Figures
  - Normative
  - Immediately follow the table or figure

Example of three list levels:

- a) List level 1.
  - 1. List level 2.
    - i. List level 3.

Example of cascading:
The shortest words or sentences are at the top.

- a) Flaws.
- b) Crazing.
- c) Warping.
- d) Gross flaws.
- e) Cloudiness.
- f) Delamination.
- g) Sharp edges or burrs.
- h) Striations or waviness.

Here is a sentence with a footnote\(^1\).

---
\(^1\) This is the text for the footnote. Footnotes can be generated using the “References” tab in MS Word.
2. References

In-text citations

☐ Refer to the current edition of the Publication Manual of the American Psychological Association (APA)
☐ All in-text citations should have a corresponding reference
☐ All references should have a corresponding in-text citation
☐ All references should be reviewed to ensure the most current information is being provided

☐ Normative Reference
  o Any document cited in the standard that is essential to the application of the standard is listed in “References”
☐ Informative Reference
  o All non-normative references are cited in the “Bibliography”

Referring to other standards

☐ Referring to standard without the year
  o Used when referring to broad subject matter or scope of a standard.

☐ Referring to a standard with the year
  o Dated references should be used when specificity is required, such as reference to a specific clause, sub clause, figure, or table of another standard.

Cross References

☐ Includes section name and header
☐ Used infrequently

Undated reference to a standard

“…see Z136.3 (latest revision) for MPEs for the eye and skin.”

Dated reference to a standard

“…see Example B7.2 in Z136.1-2014”
“…requires the use of a limited aperture diameter of 7 and 3.5 for the eye and skin, respectively (Z136.1-2014).”

“See Figure D4 on page 98.”
3. Conventions

Numbers

- Numbers spelled out if:
  - 1–9
  - Common fractions
  - Begins a heading or sentence

- Numerals used if:
  - Numbers 0, 10 and above, numerals are used
  - Numerals are used when number immediately precedes a unit of measurement

- For additional clarification, see the APA manual

Should, Shall, May, Can

- Should
  - Indicates a recommendation, but is not required

- Shall
  - Indicates mandatory action to comply with the standard

- May
  - Indicates a course of action permissible within the limits of a standard

- Can
  - Used for statements of capability and possibility, whether causal, material, or physical
  - Comparable to “is able to”

- Changing any of these words in a standard is considered a substantive change

e.g., and i.e.

- The acronyms e.g. and i.e. should not be used
- Any instances of e.g. must be spelled out as “For example,”
- Any instances of i.e. must be spelled out as “that is”
- For additional clarification, see the APA Manual

Incorrect: This situation may be appropriate (e.g., medical or research and development environments).
Correct: This situation may be appropriate, for example, in medical or research and development environments.

Incorrect: (i.e., the total radiant exposure of all pulses within any time T shall not exceed the MPE for the time T.)
Correct: That is, the total radiant exposure of all pulses within any time T shall not exceed the MPE for the time T.
That and Which

- “That”
  - Creates an essential/restrictive clause that is ‘essential’ to the meaning of the sentence
  - Is not preceded by a comma

- “Which”
  - Creates a non-restrictive clauses that can be left off a sentence without changing its meaning
  - A comma always precedes “which”

Tip: if the words following “which” can be removed without changing the meaning of the sentence, it’s non-restrictive. If the words are essential, use “that”

Restrictive clause: “Dogs that bark are noisy.”

Nonrestrictive clause: “Dogs, which are furry, can bark.”

“Defining the beam parameters provides a better understanding of the steps that are necessary to complete the process.”

“Defining the beam paramters provides a better understanding of these steps, which are explained in A1.3 through A1.7”

Classes

- When referring to multiple laser classes, the word “classes” is used, followed by the class types

“Classes 2, 2M, and 4 were…”

Equations

- Check equation for accuracy
- Check solution for accuracy
- Note if any equation is outdated
Figures

- Figure label and caption are bold and centered
  BELOW figure
- Figure centered
- Figure referred to in the text (example, “See Figure 1”).
- Figure label numbers are contiguous

Figure 1c. Sample ANSI Z535.2 Compliant Class 4 Laser Controlled Area Danger Sign Format.
### Tables

- Table label and caption bold and center **ABOVE** table
- Column headers are bold, centered
- Table text on just one line is aligned-center
- Table text spanning multiple lines is all aligned-left
- Notes are part of the table

#### Table 6a. Wavelength Dependent Parameters and Correction Factors

<table>
<thead>
<tr>
<th>Parameter/Correction Factor</th>
<th>Parameter/Correction Factor</th>
<th>Wavelength $\lambda$ (nm)</th>
<th>Graph</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>$C_A$</td>
<td>1.0</td>
<td>400 to 700</td>
<td>Fig. 8a</td>
<td>NOTE 2</td>
</tr>
<tr>
<td></td>
<td>$10^{0.002(\lambda^{-700})}$</td>
<td>700 to 1050</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.0</td>
<td>1050 to 1400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$C_B$</td>
<td>1.0</td>
<td>400 to 450</td>
<td>Fig. 8b</td>
<td>NOTE 2</td>
</tr>
<tr>
<td></td>
<td>$10^{0.002(\lambda^{-450})}$</td>
<td>450 to 600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$C_C$</td>
<td>1.0</td>
<td>1050 to 1150</td>
<td>Fig. 8c</td>
<td>NOTE 2</td>
</tr>
<tr>
<td></td>
<td>$10^{0.018(\lambda^{-1150})}$</td>
<td>1150 to 1200</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$8 + 10^{0.04(\lambda^{-1250})}$</td>
<td>1200 to 1400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$T_1$</td>
<td>$10 \times 10^{0.02(\lambda^{-450})}$</td>
<td>450 to 500</td>
<td>Fig. 9a</td>
<td>NOTES</td>
</tr>
<tr>
<td>$K\lambda$</td>
<td>$10^{0.01(1400-\lambda)}$</td>
<td>1200 to 1400</td>
<td>Fig. 15</td>
<td>NOTE 2</td>
</tr>
</tbody>
</table>

**NOTE 1**—$T_1 = 10 \text{ s for } \lambda = 450 \text{ nm and } T_1 = 100 \text{ s for } \lambda = 500 \text{ nm}.$

**NOTE 2**—Wavelengths must be expressed in nanometers for calculations.
## General Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACLS</td>
<td>advanced cardiac life support</td>
<td>MPE</td>
</tr>
<tr>
<td>AEL</td>
<td>accessible emission limit</td>
<td>MSDS</td>
</tr>
<tr>
<td>BLS</td>
<td>basic life support</td>
<td>NBH</td>
</tr>
<tr>
<td>CPR</td>
<td>cardio-pulmonary resuscitation</td>
<td>NEC</td>
</tr>
<tr>
<td>CW</td>
<td>continuous wave</td>
<td>NHZ</td>
</tr>
<tr>
<td>DLSO</td>
<td>deputy laser safety officer</td>
<td>NLR</td>
</tr>
<tr>
<td>FLPPS</td>
<td>Federal laser safety officer</td>
<td>NOHD</td>
</tr>
<tr>
<td>HZ</td>
<td>Hertz</td>
<td>OD</td>
</tr>
<tr>
<td>IR</td>
<td>infrared</td>
<td>OFCS</td>
</tr>
<tr>
<td>J</td>
<td>joules</td>
<td>PPE</td>
</tr>
<tr>
<td>JO</td>
<td>joint order</td>
<td>PRF</td>
</tr>
<tr>
<td>LASER</td>
<td>light amplification by stimulated emission of radiation</td>
<td>SDS</td>
</tr>
<tr>
<td>LCA</td>
<td>laser-controlled area</td>
<td>SI</td>
</tr>
<tr>
<td>LGAC</td>
<td>laser generated airborne contamination</td>
<td>SOP</td>
</tr>
<tr>
<td>LIDT</td>
<td>laser-induced damage threshold</td>
<td>TL</td>
</tr>
<tr>
<td>LEP</td>
<td>laser eye protection</td>
<td>UV</td>
</tr>
<tr>
<td>LSO</td>
<td>laser safety officer</td>
<td>VLT</td>
</tr>
<tr>
<td>LTIR</td>
<td>laser-targeted interaction radiation</td>
<td>w</td>
</tr>
</tbody>
</table>

## Government and Professional Organization Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACS</td>
<td>American College Of Surgeons</td>
<td>FDA</td>
</tr>
<tr>
<td>ANSI</td>
<td>American National Standards Institute</td>
<td>IEC</td>
</tr>
<tr>
<td>AORN</td>
<td>Association of periOperative Registered Nurses</td>
<td>IEEE</td>
</tr>
<tr>
<td>ASLMS</td>
<td>American Society for Laser Medicine &amp; Surgery</td>
<td>ILSC</td>
</tr>
<tr>
<td>AST</td>
<td>Association of Surgical Technologists</td>
<td>LIA</td>
</tr>
<tr>
<td>BLS</td>
<td>Board of Laser Safety</td>
<td>NCLS</td>
</tr>
<tr>
<td>CDRH</td>
<td>Center for Devices and Radiological Health</td>
<td>NFPA</td>
</tr>
<tr>
<td>FAA</td>
<td>Federal Aviation Administration</td>
<td>OSHA</td>
</tr>
</tbody>
</table>

## Z136 Procedural Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADCOM</td>
<td>Administrative Committee</td>
<td>PINS</td>
</tr>
<tr>
<td>ASC</td>
<td>Accredited Standards Committee</td>
<td>SCDV</td>
</tr>
<tr>
<td>BSR</td>
<td>Board of Standards Review</td>
<td>SPIR</td>
</tr>
<tr>
<td>CBBBG</td>
<td>Consensus Body Balloting Groups</td>
<td>SSC</td>
</tr>
<tr>
<td>CDV</td>
<td>Committee Draft for Vote</td>
<td>TSC</td>
</tr>
<tr>
<td>EWG</td>
<td>Editorial Working Group</td>
<td></td>
</tr>
</tbody>
</table>
### Compound Words (Reference Guide)

<table>
<thead>
<tr>
<th>Incorrect</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>beamsplitter; beam-splitter</td>
<td>beam splitter</td>
</tr>
<tr>
<td>multipulse</td>
<td>multiple pulse</td>
</tr>
<tr>
<td>post-exposure; post exposure</td>
<td>postexposure</td>
</tr>
<tr>
<td>pre-exposure</td>
<td>preexposure</td>
</tr>
<tr>
<td>pulsewidth; pulse-width</td>
<td>pulse width</td>
</tr>
<tr>
<td>repetitively pulsed laser</td>
<td>repetitive pulsed laser</td>
</tr>
<tr>
<td>spotsize; spot-size</td>
<td>spot size</td>
</tr>
<tr>
<td>ultra short; ultra-short</td>
<td>ultrashort</td>
</tr>
<tr>
<td>wave length; wave-length</td>
<td>wavelength</td>
</tr>
</tbody>
</table>