

# **Certification of welding inspectors**



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# Preface

This is the fifth edition of CSA W178.2, *Certification of welding inspectors*. It supersedes the previous editions, published in 2001, 1996, 1990, and 1982.

This Standard provides requirements for those seeking certification as welding inspectors. Individuals may be certified in accordance with this Standard regardless of whether they are employed by an inspection organization.

The effectiveness of welding inspection depends largely on the knowledge and integrity of the individual responsible for carrying out the inspection. Thus, there is a need for inspectors with both appropriate knowledge and the capability of exercising responsible judgment.

This Standard is not intended to replace an employer's final responsibility for the work or a supervisor's judgment of an individual's suitability to perform a given task.

This Standard was prepared by the Technical Committee on the Certification of Welding Inspectors and Inspection Organizations, under the jurisdiction of the Strategic Steering Committee on Welding and Structural Metals, and has been formally approved by the Technical Committee.

February 2008

## Notes:

- (1) Use of the singular does not exclude the plural (and vice versa) when the sense allows.
- (2) Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.
- (3) This publication was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this publication.
- (4) CSA Standards are subject to periodic review, and suggestions for their improvement will be referred to the appropriate committee.
- (5) All enquiries regarding this Standard, including requests for interpretation, should be addressed to Canadian Standards Association, 5060 Spectrum Way, Suite 100, Mississauga, Ontario, Canada L4W 5N6.  
Requests for interpretation should
  - (a) define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;
  - (b) provide an explanation of circumstances surrounding the actual field condition; and
  - (c) be phrased where possible to permit a specific "yes" or "no" answer.

Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are published in CSA's periodical Info Update, which is available on the CSA Web site at [www.csa.ca](http://www.csa.ca).

# ***Foreword***

The Canadian Welding Bureau (CWB) provides certification services for organizations, fabricators, and individuals who wish to be certified in conformance to this Standard.

In performing its functions in accordance with its objectives, the CWB does not assume or undertake to discharge any responsibility of the manufacturer or any other party. The opinions and findings of the CWB represent its professional judgment given with due consideration to the necessary limitations of practical operation and state of the art at the time this Standard is processed.

Operational and control techniques, test procedures, and instrumentation may be prescribed by the CWB in addition to the requirements contained in CSA Standards.

Some tests required by CSA Standards may be inherently hazardous. The CWB neither assumes nor accepts any responsibility for any injury or damage that may occur during or as the result of tests, wherever performed, whether performed in whole or in part by the CWB or any other party, and whether or not any equipment, facility, or personnel for or in connection with the test is furnished by the CWB or any other party.

In the event that the CWB is unable to resolve an issue relating to certification, there is an appeal procedure: the complainant should submit the matter, in writing, to the Chair of the CWB.

For information concerning application for certification to this Standard, address your inquiry to the Canadian Welding Bureau, 7250 West Credit Avenue, Mississauga, Ontario, L5N 5N1.

# W178.2-08

## *Certification of welding inspectors*

### 1 Scope

#### 1.1

This Standard covers the certification of welding inspectors at three certification levels. It specifies the responsibilities and the basic technical functions associated with each level.

#### 1.2

This Standard specifies the requirements for the periodic review of welding inspector certification, including vision tests.

#### 1.3

This Standard, by including a code of ethics for the welding inspector, defines principles of practice and conduct for maintaining certification.

#### 1.4

To assist candidates in preparing for examinations, this Standard contains sample course outlines (see [Annex A](#)) covering

- (a) welding fundamentals;
- (b) welding inspection; and
- (c) welding metallurgy.

It also includes a list of relevant reference publications for each product category (see [Annex B](#)).

#### 1.5

This Standard does not address safety issues associated with welding. It is the responsibility of the users of this Standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations.

**Note:** CAN/CSA-W117.2 addresses safety in welding, cutting, and allied processes.

#### 1.6

In CSA Standards, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; “may” is used to express an option or that which is permissible within the limits of the standard; and “can” is used to express possibility or capability. Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material. Notes to tables and figures are considered part of the table or figure and may be written as requirements. Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

### 2 Reference publications

This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.

#### **CSA (Canadian Standards Association)**

CAN/CSA-W117.2-06

*Safety in welding, cutting, and allied processes*