CANADIAN STANDARDS ASSOCIATION

Z1006-10

Management of work in confined spaces

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Management of work in confined spaces

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Preface

This is the first edition of CSA Z1006, *Management of work in confined spaces*.

This Standard specifies requirements for and provides guidance on the activities required to manage all aspects of work in confined spaces in accordance with the Plan-Do-Check-Act cycle and management system principles such as those set out in CAN/CSA Z1000-06, *Occupational health and safety management*. This Standard specifies requirements concerning management commitment, leadership, and participation, assignment of roles and responsibilities, identification of confined spaces, identification of hazards, risk assessment, selection and application of controls, design considerations, training, monitoring and measurement, emergency response, documentation, internal audits, and management reviews. Two informative Annexes provide guidance on implementing this Standard's normative requirements, including sample forms that can be customized for the specific needs of the user.

By permission of the American National Standards Institute (ANSI), part of this Standard is based on ANSI/ASSE Z117.1-2003, *Safety Requirements for Confined Spaces*.

CSA acknowledges that the development of this Standard was made possible, in part, by the financial support of federal, provincial, and territorial occupational health and safety government agencies.

This Standard was prepared by the Technical Committee on Management of Confined Space Entry, under the jurisdiction of the Strategic Steering Committee on Occupational Health and Safety, and has been formally approved by the Technical Committee. This Standard will be submitted to the Standards Council of Canada for approval as a National Standard of Canada.

April 2010

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.*

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Management of work in confined spaces

0 Introduction

This Standard provides

(a) an overview of the steps an organization needs to take to establish and maintain an effective confined space management program;
(b) safety information for workers entering confined spaces and for persons responsible for ensuring the safety of such workers; and
(c) requirements for confined space emergency preparedness and rescue.

This Standard is consistent with CAN/CSA-Z1000 in that it is intended to help users integrate their confined space management program into an organization's existing occupational health and safety management system (OHSMS). Like CAN/CSA-Z1000, this Standard is organized into clauses based on the Plan-Do-Check-Act (PDCA) model. However, use of this Standard is not contingent on an organization having an OHSMS.

Clause 4 specifies general requirements for a comprehensive confined space management program.

Clauses 5 to 7 specify requirements for planning and implementing a confined space management program. Clause 5 specifies roles and responsibilities. Clause 6 specifies requirements for hazard identification and risk assessment, development of entry procedures, emergency response planning, and assessment of fitness to perform confined space work. Clause 7 specifies requirements related to training, controls, emergency response activities, and documentation.

Clauses 8 and 9 specify requirements related to incident investigation and analysis, corrective actions, internal audits, and management reviews. These activities can help ensure worker safety and facilitate continual improvement of a confined space management program.

Annexes A and B provide guidance on implementing this Standard's requirements and include sample forms.

1 Scope

1.1

This Standard specifies requirements for

(a) establishing and maintaining a confined space management program in accordance with OHSMS principles;
(b) the roles and responsibilities of the management representative, entry team, and emergency response team;
(c) management of external service providers;
(d) identification and designation of confined spaces;
(e) design and engineering of confined spaces;
(f) hazard identification and risk assessment relating to work in confined spaces;
(g) management and control of hazards and risks associated with work in confined spaces;
(h) general safety procedures for confined spaces;
(i) personal protective equipment (PPE) and other equipment used for work in confined spaces;
(j) emergency plans for rescuing workers in confined spaces;
(k) training for work in confined spaces; and
(l) determining fitness for work in confined spaces.

1.2
This Standard does not address safety management of
(a) enclosures or structures designed and constructed for continuous human occupancy; or
(b) underwater enclosures.
Note: *For underwater enclosures see the requirements for penetration diving specified in CAN/CSA-Z275.2.*

1.3
This Standard is designed to be used with related occupational or technical standards. It is intended to be referenced by other Standards as the primary set of requirements for health and safety management of work in confined spaces.

1.4
This Standard is designed for voluntary application in Canadian workplaces. However, the principles established in this Standard are based on best practices recognized internationally. As such they may be applied to any workplace.

1.5
At the time of publication, confined space legislation differs from jurisdiction to jurisdiction in Canada. It is the user's responsibility to determine how applicable legislative requirements relate to this Standard.

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; and "may" is used to express an option or that which is permissible within the limits of the standard.

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 (nonmandatory) to define their application.

1.7
The values given in SI units are the units of record for the purposes of this Standard. The values given in parentheses are for information and comparison only.

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)
C22.1-09
Canadian Electrical Code, Part I

PLUS 1156-00
Fall-arrest systems — Practical essentials

CAN/CSA-Z94.1-05
Industrial protective headwear — Performance, selection, care, and use

CAN/CSA-Z94.2-02 (R2007)
Hearing protection devices — Performance, selection, care, and use