

Formal Interpretations/ Interprétation formelle

This section lists questions that individuals have submitted about a particular standard. Each question has been reviewed and answered by the appropriate committee. If you would like to submit a question about a particular standard, please see the end notes in the preface of that standard.

Posted November 7, 2018

The following interpretation regarding CSA Standard W47.1 Clause 6.4.1, *Certification of companies for fusion welding of steel*, has been approved by the Members of the CSA Standards Technical Committee on Certification of Companies for Welding of Steel and Aluminum (W47.1) [G159]:

Question: Is a person who is a Member of the Association of the Engineers and Geoscientists of British Columbia (AEGBC) and a member of the Professional Engineering Society (EGBC) who is also qualified as a Red Seal interprovincial welder, having CGSB certifications, is a Level III CWB visual inspector for 20 years / AWS CWI and a National Board of Boiler and Pressure Vessels, certified Pressure Equipment inspector permitted to act as a retained Engineer to W47.1 (Div.2) & W47.2 Companies?

Answer: *Yes, provided that person is a licenced or Registered Professional Engineer.*

The requirement stated in Clause 6.4.1 “The welding engineer shall be a licensed or registered professional engineer in a Canadian provincial or territorial association or corporation of engineers” is explicit in itself and affirms that the sole determiner of the requirements to be licenced or registered is the Canadian provincial or territorial association or corporation of engineers. Hence it is not within the mandate of the CSA TC to determine whether or not individual’s qualifications meet the requirements for licensing or registration as a professional engineer.”

Posted August 21, 2018

The following interpretation regarding CSA Standard C22.3 No. 1, Clause 7.8.2.4, has been approved by the Technical Committee on Overhead Systems:

Question 1: In Clause 7.8.2.4, it states to use the factors from Table 32 for guys. (1.25 longitudinal force Grade 2) Considering that we are creating a deterministic design and that the overhead ground wires will be galvanized steel, do we need to limit the maximum tension in the guys to 60% of the ultimate tensile strength as indicated in Table 34?

Answer: No, there is a need to limit overhead ground wire, not the guy, to 60% of the ultimate tensile strength as indicated in Table 34.

Question 2: What is the maximum tension percentage to use for the validation of the guys?

Answer: 100% of the strength after load factors have been applied.

Question 1: A l'article 7.8.2.4, il est demandé d'utiliser les facteurs du tableau 32 pour les haubans. (1.25 force longitudinale classe 2). Considérant que nous faisons une conception déterministe et que les câbles de garde seront en acier galvanisé, devons-nous limiter la tension maximale dans les haubans à 60% de la charge de rupture tel qu'indiqué au tableau 34?

Réponse: Non, il est nécessaire de limiter le fil de garde aérien, et non le hauban, à 60 % de la charge de rupture tel qu'indiqué au tableau 34.

Question 2: Quel est le pourcentage de tension maximale à utiliser pour la validation des haubans?

Réponse: 100 % de la résistance après que les facteurs d'utilisation ont été appliqués.

Posted August 14, 2018

The following interpretation regarding CSA Standard CSA Z245.12-17, Clauses 8.1, 9.1.3.3 and 9.1.3.4, has been approved by the Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):

Question: For the purposes of heat treatment in Clause 8.1 and 9.1.3.3 and 9.1.3.4, for a weld neck flange, is the defining "thickness" at the base of the hub?

Answer: Yes.

Posted August 14, 2018

The following interpretation regarding CSA Standard CSA Z245.30, Clause 5.3, has been approved by the Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):

Question #1: If a manufacturer of plural component systems manufactures the components at multiple manufacturing sites, do different combinations of components manufactured at different sites by the same manufacturer, to the same formulation, require separate qualification?

Answer #1: No

Question #2: If a manufacturer has multiple grades of products (e.g., brush applied, cartridge, spray applied) with different physical properties, are they considered different coating formulations requiring separate qualification?

Answer #2: Yes

Posted August 14, 2018

The following interpretation regarding CSA Standard CSA Z245.11, Clause 10.3, has been approved by the Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):



Question: Does the first paragraph of Clause 10.3 apply to bends?

Answer: No

Posted August 14, 2018

The following interpretation regarding CSA Standard Z662, Clauses 9.8.3 & 9.8.7, has been approved by the Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):

Question: In Clause 9.8.3 it states that thermitic welding is used to attach copper electrical conductors to the pipe. According to Clause 9.8.7 can pin brazing be used to attach copper electrical conductors across flanges as they are not on the pipe surface?

Answer: No

Posted August 14, 2018

The following interpretation regarding CSA Standard Z245,11-17, Clauses 8.1, 9.1.3.3 a) & b), Annex B and Clause B.1.7, has been approved by the Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):

Question 1: Is Clause B.1.7 mandatory?

Answer 1: Yes, unless some other practice can be demonstrated to be equivalent, as permitted by Clause 8.1

Question 2: If so, does that mean that the heat treatment by Clauses 9.1.3.3 and 9.1.3.4 lot definition a) and b) is also restricted to being controlled within a +/- 15C from the set point temperature?

Answer 2: Yes, unless some other practice can be demonstrated to be equivalent, as permitted by Clause 8.1.

Question 3: Does demonstrated equivalency to Annex B in Clause 8.1 mean that the mechanical properties and microstructure are equivalent to those obtained from a furnace calibrated in accordance with Annex B?

Answer 3: Yes

Posted August 14, 2018

The following interpretation regarding CSA Standard Z245,11, Clauses 6.4 and 6.4.1, has been approved by the Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):

Question: Does Z245.11-17 require all hot formed fittings to be heat treated?

Answer: No. Where required to be heat treated, hot forming by itself does not qualify as heat treatment for these conditions.

Posted August 14, 2018

The following interpretation regarding Standard CAN/CSA-Z317.2-15, *Special requirements for heating, ventilation, and air-conditioning (HVAC) systems in health care facilities*, Clause 6.10.4.2.1 (b) on airborne isolation rooms (negative pressure rooms), has been approved by Z257 Technical Committee on Health Care Facilities:

Question 1: Clause 10.6.4.2.1 (b) states that the normal operating pressure gradient shall be 7.5 Pa, measured between the room and the corridor. Clause 6.10.4.2.4, Note (2) states that the minimum set point of the alarm should be no lower than 2.5 Pa. Is the intent of the Standard met, if during actual operation, the pressure gradient fluctuates and goes lower than 7.5 Pa, provided that it never goes below 2.5 Pa?

Answer: No.

Posted May 4, 2018

The following interpretation regarding CSA Standard N292.0-14, has been approved by the Technical Committee on Radioactive Waste Management (N292):

Question: Regarding a clarification on interpretation of item (a) seismic activity in Section 5.11.2.3: when the design basis earthquake for a location is 1E-4, which is greater than the cut-off frequency of 1E-6 as defined in “credible abnormal event”, is a safety assessment required according to the CSA N292-Series for beyond design basis earthquake (that is, between 1E-4 to 1E-6 in this example)?

Answer: Yes. A further safety assessment is required, but no further seismic assessment is required to demonstrate compliance with an applicable (seismic) CSA standard or the NBCC.

Posted April 11, 2018

The following interpretation regarding CSA Standard N293-07, *Fire protection for nuclear power plants*, has been approved by the Members of the CSA Standards Technical Committee on Fire Protection for Nuclear Power Plants:

Question: As per our understanding of the intent of this Section, we interpret that:

1. Not all electrical conductors (including fire alarm cables) are required to have minimum 1 hour fire resistance rating;
2. ONLY those electrical conductors (including fire alarm cables) are required to have a minimum 1 hour fire resistance given they meet all criteria below:
 - (a) Installed in service spaces containing other combustible materials; and

- (b) Used as connection between the fire alarm systems and emergency equipment (e.g. fire-related smoke control equipment, elevator recall, etc.);
- (c) Are required to perform their intended function (other than fire detection) after a fire event.

Is our interpretation of CSA Standard N293-07, 7.2.1.13.1 correct?

Answer: Yes.

Posted March 7, 2018

The following interpretation regarding CSA Standard A283-06 (R2016), has been approved by the Members of the CSA Standards Technical Committee on Qualification Code for Concrete Testing Laboratories (A283):

Question 1: Does CSA A283-06 (R2016) require that the supervising engineer of a certified concrete laboratory be a licensed P.Eng. (ing. In Quebec) in the jurisdiction in which the laboratory is located?

Answer: Yes.

Question 2: Was it the intention of the technical committee to change the requirement that the supervising engineer of a certified concrete laboratory be a professional engineer when Update No. 2 was published in 2013?

Answer: No.

Posted February 14, 2018

The following interpretation regarding CSA Standard C282-09, *Emergency Electrical Power Supply for Buildings*, Clause 7.3.12, has been approved by the JB108 TC on Emergency Electrical Power Supply for Buildings (C282):

Question 1: Is the fuel storage tank also subject to the requirement that tanks and fuel be reserved exclusively for the emergency generator set(s)? In other words, a fuel storage tank, used to feed the day tank of an emergency generator set, cannot be used to feed the day tank of a non-emergency generator or any other oil-burning appliances.

Answer 1: Yes

Question 2: If the answer to question 1 is “NO”, does your answer remain the same for an installation that must comply with the requirements of CSA Z32 - Electrical safety and essential electrical systems in health care facilities?

Answer 2: N/A



The following interpretation regarding CSA Standard C282-09, *Emergency Electrical Power Supply for Buildings*, Clause 5, has been approved by the JB108 TC on Emergency Electrical Power Supply for Buildings (C282):

Question: Is "all associated wiring" in item 5.1.c intended for control and/or communication wiring only?

Answer: No

Posted January 16, 2018

The following interpretation regarding CSA Standard Z245.11-17, Clause 4.3.4, has been approved by the K110 TC on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

Question: The reference to CSA Z662 Clause 4.3.21 in Z245.11 Clause 4.3.4 does not exist in the current Z662 document. Is the intent to reference another clause?

Answer: No. The current Z662-15 clause reference does not exist but the intent was to reference a proposed clause in Z662-19 which has not yet been approved. As such, this CSA Z662 Clause 4.3.21 option in CSA Z245.11 Clause 4.3.4 (below) is not possible and only the other two options (ASME B.16.49 or as otherwise agreed with the purchaser) are acceptable options.

Posted January 16, 2018

The following interpretation regarding CSA Z662-15, Clause 4.3.1.1 and 4.12.1.1, has been approved by the K110 TC on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

Question 1: May ASME Boiler and Pressure Vessel Code (Section VIII, Division 2) referenced in Clause 4.3.1.1 be used for designing a pipeline for excessive overburden that could be caused by frequent vehicle traffic at non-cased crossings?

Answer 1: Yes

Question 2: Does the Clause 4.3.1.1 Note 2) specifically refer to the Section 4.4.12 of ASME Boiler and Pressure Vessel Code (Section VIII, Division 2) 2015 for the purpose referenced in above question #1?

Answer 2: No



Question 3: May ASME Boiler and Pressure Vessel Code (Section VIII, Division 2) referenced in Clause 4.3.1.1 be used for designing a pipeline for the fatigue evaluation that could be caused by frequent vehicle traffic at non-cased crossings?

Answer 3: Yes

Question 4: Does the Clause 4.3.1.1 Note 2) specifically refer to Section 5.5 of the ASME Boiler and Pressure Vessel Code (Section VIII, Division 2) 2015 for the purpose referenced in above question #3?

Answer 4: No

Question 5: Does the Clause 4.12.1.1 Note apply to the “other crossings”?

Answer 5: No

Question 6: In Clause 4.12.1.1 are non-cased utilities, roads, railways, and water crossings considered “other crossings”?

Answer 6: No

Question 7: In Clause 4.12.1.1 Note, is the reference to Warman, Hart and Francini (2009) the same as the CEPA Final Report No. 05-44R1?

Answer 7: Yes

Posted January 16, 2018

The following interpretation regarding CSA Standard Z662-15, Clause 14.4.3, has been approved by the K110 TC on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

Question: Is the use of a “transition piece” (including the subsequent requirements of Clause 14.3.7 and 14.4.3 (a) and (b)) considered “necessary” by the text in clause 14.4.3, if conformance to the joint preparation requirements of ASME B31.3 is achieved when joining higher grade materials to lower grade materials of unequal thickness?

Answer: No

Posted January 16, 2018

The following interpretation regarding CSA Standard Z245.20-14, Clause 12.8.3.1 (i) and 12.14.3 (b), has been approved by the K110 TC on Petroleum & Natural Gas Industry Pipeline Systems and Materials:



Question: Clauses 12.8.3.2 (i) and 12.14.3 (b) of Z245.20-14 require that the test specimen be “air cooled”. Is forced air cooling by means of aiming a fan at the specimen allowed?

Answer: Yes

Posted January 16, 2018

The following interpretation regarding CSA Standard Z662-15, Clause 4.3.12.3, has been approved by the K110 TC on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

Question 1: Applies to fabricated carbon steel basket strainers regardless of size or pressure rating. Design as per Z662 for fabricated assembly.

Answer 1: Yes

Question 2: With reference to question #1, can be applied to fabricated carbon steel basket strainers with quick-opening closures, provided the closure is designed in accordance with Clause 4.3.13.

Answer 2: Yes

Question 3: Fabricated carbon steel basket strainers need not have independent pressure relieving devices (for example, as required by ASME Section 8 Div 1 UG-125), provided the basket strainer is always directly connected to a piping system that has overpressure protection in accordance with Clause 4.18 and has an appropriate MOP.

Answer 3: Yes

Question 4: Fabricated carbon steel basket strainers as defined above do NOT need to be designed as pressure vessels per the requirements of B51.

Answer 4: Yes

Posted January 16, 2018

The following interpretation regarding CSA Standard Z662-15, Table 4.2, has been approved by the K110 TC on Petroleum & Natural Gas Industry Pipeline Systems and Materials:



Question 1: Can an engineering assessment per Clause 10.7 be used to continue operation of a pipeline at the original operating conditions after installation of a railway or other crossing per Clause 10.8?

Answer 1: Yes

Question 2: Is it possible to modify the location factor shown in Table 4.2 as a result of an engineering assessment except as permitted for gas pipelines in Table 4.2?

Answer 2: No

Question 3: Can an engineering assessment per Clause 10.7 include the use of an engineered concrete slab to allow continued operation of a pipeline at the original operating conditions after installation of a railway or other crossing per Clause 10.8?

Answer 3: Yes

Question 4: Would the applicable location factor in Table 4.2 change for a pipeline if the design includes the use of an engineered concrete slab except as permitted for gas pipelines per Table 4.2?

Answer 4: No

Posted February 14, 2018

The following interpretation regarding CSA Standard C282-09, *Emergency Electrical Power Supply for Buildings*, Clause 7.3.12, has been approved by the JB108 TC on Emergency Electrical Power Supply for Buildings (C282):

Question 1: Is the fuel storage tank also subject to the requirement that tanks and fuel be reserved exclusively for the emergency generator set(s)? In other words, a fuel storage tank, used to feed the day tank of an emergency generator set, cannot be used to feed the day tank of a non-emergency generator or any other oil-burning appliances.

Answer 1: Yes

Question 2: If the answer to question 1 is “NO”, does your answer remain the same for an installation that must comply with the requirements of CSA Z32 - Electrical safety and essential electrical systems in health care facilities?

Answer 2: N/A

The following interpretation regarding CSA Standard C282-09, *Emergency Electrical Power Supply for Buildings*, Clause 5, has been approved by the JB108 TC on Emergency Electrical Power Supply for Buildings (C282):



Question: Is "all associated wiring" in item 5.1.c intended for control and/or communication wiring only?

Answer: No

Posted February 14, 2018

The following interpretation regarding CSA Standard B55.2-15, *Drain water heat recovery units*, has been approved by the Members of the CSA Standards Technical Committee on Drain Water Heat Recovery Systems (B55):

Question: Does the intent of Clause 4 in CSA B55.2-15 "Classification of drain water heat recovery units" permit that the two walls of a "double-wall vented" heat exchanger be bonded directly together (for example joined together with solder, braising alloy, welded, epoxy, etc.), in part or in whole?

Answer: No