



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 Dec 24, 2020

The following interpretation regarding Rule 4-006 1 of CSA Code C22.1-18, Canadian Electrical Code, Part I, has been approved by the Members of the CSA Standards Technical Committee on *Canadian Electrical Code, Part I*.

Question: In accordance with the new note in Table 5A, “** The insulation temperature rating is the temperature marked on the conductor”, if a circuit breaker rated with a maximum conductor termination of 75 °C has TECK 90 connected to it to feed a piece of equipment that is marked with a maximum conductor termination of 75 °C, yet partway through the cable run, the TECK 90 goes through an area with an ambient exceeding 30 °C, would we use the 90 °C column of Table 5A so long as the high ambient area is more than 1.2 m away from the equipment in accordance with Rules 4-006 1) and 4)?

Answer: Yes.

The following interpretation regarding Rule 4-024 and 4-032 of CSA Code C22.1-18, Canadian Electrical Code, Part I, has been approved by the Members of the CSA Standards Technical Committee on *Canadian Electrical Code, Part I*.

Question: Do Rules 4-024 and 4-032 mandate that insulated conductors coloured white or grey shall only be used as a neutral conductor or an identified conductor?

Answer: Yes.

The following interpretation regarding Rule 8-304 1) of CSA Code C22.1-18, Canadian Electrical Code, Part I, has been approved by the Members of the CSA Standards Technical Committee on *Canadian Electrical Code, Part I*.

Question: For the application of Rule 8-304 1), is a duplex receptacle considered as one outlet?

Answer: Yes.

Question: For the application of Rule 8-304 1), is a quadruplex receptacle considered as one outlet?

Answer: Yes.

The following interpretation regarding Rule 24-104 8) of CSA Code C22.1-18, Canadian Electrical Code, Part I, has been approved by the Members of the CSA Standards Technical Committee on *Canadian Electrical Code, Part I*.



Question: In accordance with the literal text of Rule 24-104 8), and in accordance with the Appendix B Note on this Subrule, is a metal sink located in a patient care environment required to be bonded to ground?

Answer: No.

The following interpretation regarding Rule 36-204 of CSA Code C22.1-18, Canadian Electrical Code, Part I, has been approved by the Members of the CSA Standards Technical Committee on *Canadian Electrical Code, Part I*.

Question: Would a 66 kV load-break rated circuit switcher and associated protection relays be considered as a breaker/overcurrent protection to comply with Rule 36-204?

Answer: No.

The following interpretation regarding Rule 42-004 CSA Code C22.1-18, Canadian Electrical Code, Part I, has been approved by the Members of the CSA Standards Technical Committee on *Canadian Electrical Code, Part I*.

Question: In accordance with Rule 42-004, is it permissible to install an overcurrent device with a rating or setting larger than the rating of the receptacle if the rating or type of the welder is unknown, provided that the overcurrent rating or setting adequately protects the conductors supplying the receptacle?

Answer: No.

The following interpretation regarding Rule 64-222 1) CSA Code C22.1-18, Canadian Electrical Code, Part I, has been approved by the Members of the CSA Standards Technical Committee on *Canadian Electrical Code, Part I*.

Question: If a racking system approved for use in Canada utilizes integrated bonding in its components in conjunction with modules approved for use with that racking system, would this be an acceptable means of bonding to ground as required by Rule 64-222 1)?

Answer: Yes.

The following interpretation regarding Rule 64-222 4) CSA Code C22.1-18, Canadian Electrical Code, Part I, has been approved by the Members of the CSA Standards Technical Committee on *Canadian Electrical Code, Part I*.

Question: In Rule 64-222 4), does the phrase “removal of a photovoltaic module” refer to a single photovoltaic module only?

Answer: Yes.

Posted Dec 2, 2020

The following interpretation regarding Clause 4 of CSA Standard Z662-19, Oil and gas pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question 1: If a system is designed to ASME B31.3, per CSA Z662:19 Clauses 4.14.2.11 c) or 4.14.3.8 d), would the requirements of CSA Z662:19, Clauses 4.3.16 through 4.3.20 be applicable?

Answer 1: No

Question 2: Under 4.3.12.2 Is MSS-SP97 Integrally Reinforced Forged Branch Outlet Fittings—Socket Welding, Threaded and Buttwelding Ends considered an applicable component standard?

Answer 2: Yes

Question 3: Under 4.3.18 b), does the term “welding outlet fitting type” include fittings manufactured to MSS-SP97 Integrally Reinforced Forged Branch Outlet Fittings—Socket Welding, Threaded and Buttwelding Ends?

Answer 3: Yes

Question 4: Where permitted by Clause 4.3.18, can Clause 4.3.19 be used to establish the adequacy of the design for welding outlet fittings?

Answer 4: Yes

Question 5: CSA Z662:19, Clause 4.3.19, does not explicitly allow for proof testing as a viable option for determining the adequacy of the design of a branch connection. If a fitting is ordered to be in accordance with MSS SP-97 where the adequacy of the design is established by proof testing, are the calculations in CSA Z662:19, Clause 4.3.19 mandatory?

Answer 5: No

The following interpretation regarding Clauses 10.7.1, and 10.11.3 of CSA Standard Z662-19, Oil and gas pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Example scenario:

A pipeline is constructed to an earlier edition of CSA Z662 (e.g. 2015) and requires permanent repair work per 10.11.3 (piping replacement). The class location designation, as assessed per Clause 10.7.1, has not changed since the 2019 edition has been released. The repaired sections of pipeline have also not been upgraded (had an increase in MOP) per clause 10.3.8, nor had a new crossing per 10.8.1.

Question 1: Does the design thickness calculation have to use class location factors and/or designations as determined by the 2019 edition?

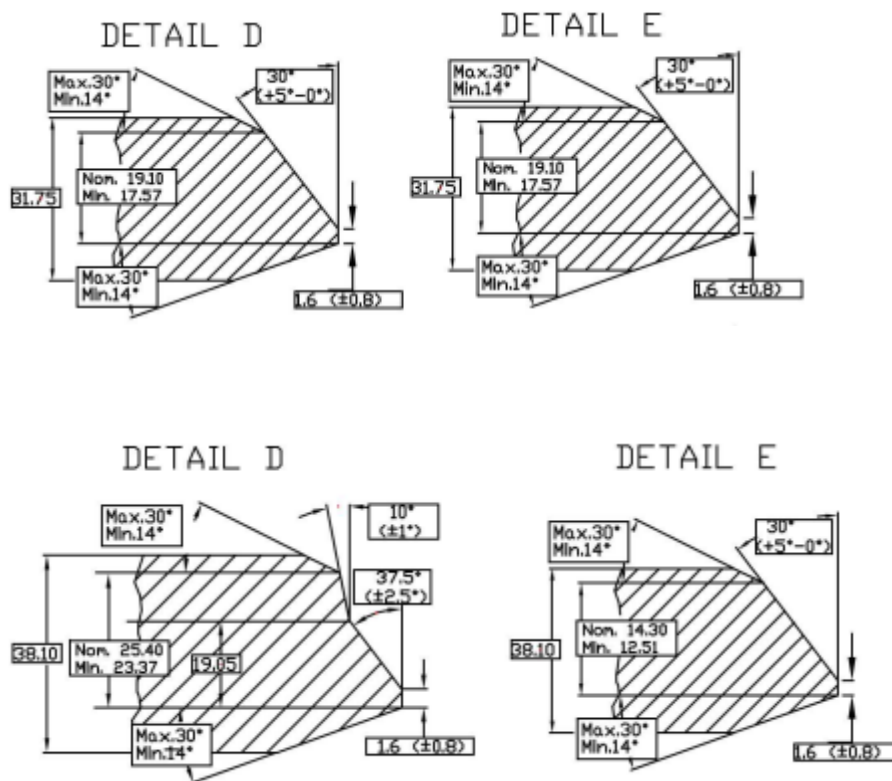
Answer 1: No, provided the class location designation has not changed.

Question 2: Does the design thickness calculation have to consider DGA's as per Clauses 4.3.7.2 to 4.3.7.4?

Answer 2: No

The following interpretation regarding Clause 7.9.15.2 of CSA Standard Z662-19, Oil and gas pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

NPS 36 and NPS 42 x 18, CSA Z245.11 Grade 483, Barred Tee, BW ends are being supplied by the manufacturer in quenched and tempered followed by PWHT condition (i.e., PWHT is completed after welding the scraper bars in Q&T tee) as per CSA Z245.11 clause 6.5.4 (b). These tees are fabricated from plates and are to be welded with CSA Z245.1 Grade 483 HQ (quench and tempered) pipe with nominal thickness of 22.1mm. The thicknesses of tees are 31.75mm and 38.1mm with a nominal thickness as shown below:



‘Detail D’ is for straight run end and ‘Detail E’ is for branch end

The tees are to be installed in Category II natural gas pipeline with MDMT -45 degree Celsius.

Question: Does Clause 7.9.15.2, mandate stress relieving for the girth welds between the above described pipe and trees to be completed at field using welding produce qualified under CSA Z662?



Answer: No

The following interpretation regarding Clause 10.11.4.3 a) i) of CSA Standard Z662-19, Oil and gas pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question: As stated in Clause 10.11.4.3 a) i), the sleeve system shall indicate an extrapolated sleeve system rated performance of at least 50 years. Given this requirement, does CSA consider 1000-hour survival testing as stated in Annex E.2.1 of ISO 24817, and Appendix V-2.1 of ASME PCC-2 Article 4.1, as adequate for determining long-term strains for the repair over a 50 year performance lifetime?

Answer: No

The following interpretation regarding Clauses 13.1.8.1, 13.1.8.4, and 13.1.8.5 of CSA Standard Z662-19, Oil and gas pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question 1: Does a liquid test consisting of a 4 hour strength test at 1.25 x intended maximum operating pressure (MOP) followed by a 4 hour leak test at 1.1 x intended MOP, completed after test pressure stabilization, satisfy the requirements CSA Z662-19 Clauses 13.1.8.1, 13.1.8.4, and 13.1.8.5 such that the system can be assigned the intended MOP.?

Answer 1: No, the minimum test pressure for the concurrent test is 1.25 times the intended maximum operating pressure for 8 hours, per Clause 13.1.8.4 and 13.1.8.5

Question 2: If the answer to Question 1 is “No”, would the test described in Question 1 satisfy the requirements of CSA Z662-19 Clauses 13.1.8.1, 13.1.8.4, and 13.1.8.5 such that the system can be assigned a MOP that is 80% of the lowest test pressure obtained during the 8 hr test period specified in Clause 13.1.8.5 for a liquid test

Answer 2: Yes, provided that the requirements of Clause 13.1.9.1 are met.

The following interpretation regarding Clause 1.2 of CSA Standard Z245.20-18, Plant-applied external fusion bond epoxy coating for steel pipe, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question: Is any Z245.20 FBE coating system still considered a Z245.20 coating, if a Fusion Bond Polyester (FBP) UV protection topcoat is applied?

Answer: No

The following interpretation regarding Clause 6.1.1 of CSA Standard Z245.22-18, Plant-applied external polyurethane foam insulation coating for steel pipe, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.



Question: Does “manufacturer” in Clause 6.1.1 a) refer to the manufacturer of the foam insulation materials?

Answer: Yes, the chemical manufacturer of each component, polyol, isocyanate and blowing agent.

The following interpretation regarding Clauses 6.1.2.5.1 e) and 6.1.2.5.5 e) of CSA Standard Z245.30-18, Field-applied external coatings for steel pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question: If an applicator was qualified to the 2014 edition, and does not require re-qualification per Clause 6.1.2.6, is it expected that a new qualification certificate be issued?

Answer: No

The following interpretation regarding Clause 7.5.4.1 of CSA Standard Z245.30-18, Field-applied external coatings for steel pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question 1: Clause 7.5.4.1, Holiday inspection – General. For new construction, is the use of a holiday detector on 100% of the coated surface of the pipe required?

Answer 1: Yes

Question 2: Does “existing pipe” refer to pipe already in-service?

Answer 2: Yes

Question: Is 100% holiday detection required on coating applied on a pipe replacement section, where possible?

Answer: Yes

The following interpretation regarding Clause 4.14.2.1 of CSA Standard Z662-19, Oil and gas pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Clause 4.14.2.1 refers to individual “engine catwalks”. We seek the following clarification with respect to that term:

Question 1a: CSA Z662 offers no definition of “engine catwalk”. Is it correct to interpret that it is at the design engineer’s discretion how this definition is applied?

Answer 1a: Yes, see Clause 1.4

Question 1b: Does the term “engine catwalks” include catwalks providing access to all integral engine components, therefore two exits are not required?



Answer 1b: See answer to 1a

Question 1c: Does “engine catwalks” include catwalks providing access to the engine air intake for the main compressor driver, therefore two exits are not required?

Answer 1c: See answer to 1a

Question 1d: Does “engine catwalks” include catwalks providing access to the engine exhaust for the main compressor driver, therefore two exits are not required?

Answer 1d: See answer to 1a

Question 1e: Does “engine catwalks” include catwalks providing access to motors driving fans associated with building ventilation, therefore two exits are not required?

Answer 1e: See answer to 1a

Question 1f: Does “engine catwalks” include catwalks providing access to motors driving fans associated with heat exchanger equipment, therefore two exits are not required?

Answer 1f: See answer to 1a

Question 1g: Does “engine catwalks” include catwalks providing access to overhead cranes that service the main compressor driver, therefore two exits are not required?

Answer 1g: See answer to 1a

Clause 4.14.2.1 refers to “operating floor”. We seek the following clarification with respect to that term:

Question 2a: CSA Z662 offers no definition of “operating floor”. Is it correct to interpret that it is at the design engineer’s discretion how this definition is applied?

Answer 2a: Yes, see Clause 1.4

Question 2b: Is the term “operating floor” only applicable to the main floor area of a compressor building?

Answer 2b: No

Question 2c: Is the term “operating floor” only applicable to the situation when the compressor is in operating mode?

Answer 2c: No

Question 2d: For the purpose of “two exits” in design, does the term “operating floor” include catwalks designed to access specific elevated equipment for periodic maintenance purposes only?

Answer 2d: No



Clause 4.14.2.1 refers to “...elevated walkways or platforms 3m or more above ground...” We seek the following clarification with respect to that phrase:

Question 3a: Does the phrase “...elevated walkways or platforms 3m or more above ground...” include walkway(s) or platform(s) that are located outside of a “main compressor buildings”?

Answer 3a: No

Question 3b: In certain design situations, there could be practical limit for the size of a platform where two exits would be infeasible or pose additional risk due to congestion on the floor within main compressor buildings. Can the number of exits and allowable escape path length for elevated walkways or platforms 3m or more above ground or floor level be established by a site-specific risk/consequence analysis, performed by a competent engineering design professional?

Answer 3b: No

Question 4: The National Building Code of Canada has allowance for maximum areas and maximum egress lengths before two exits are required. Could the applicable building and fire codes be used to satisfy the requirements of CSA Z662 when determining the number of exits to be provided?

Answer 4: No

Posted Dec 2, 2020

The following interpretation regarding Clause 6.1 of CSA Standard N291:19, Requirements for nuclear safety-related structures, has been approved by the Members of the CSA Standards Technical Committee on *Concrete Containment and Safety Related Structures for Nuclear Power Plants (N287/N291)*.

Rationale: Clause 6.1.2 would apply.

Question: Is it the intent of CSA N291:19 Clause 6.1 to preclude the use of steel-plate composite walls?

Answer: “No”. (Clause 6.1.2 would apply)

Posted August 27, 2020

The following interpretation regarding Clause 9.3.3.6 of CSA Standard CAN/CSA-C439-18, Laboratory methods of test for rating the performance of heat/energy-recovery ventilators, has been approved by the Members of the CSA Standards Technical Committee on *Heating, Ventilation, Air Conditioning and Refrigeration*.

Question: that QL shall be set to 0 whenever the H/ERV is in any defrost modes

Answer: No

Posted July 30, 2020

The following interpretation regarding Clause 12.2.5.2.3 of CSA Standard N285.4:19, Periodic inspection of CANDU nuclear power plant components, has been approved by the Members of the CSA Standards Technical Committee on *Periodic Inspection of Nuclear Power Plant Components* (N285B).

Rationale: The goal of the acceptance criteria is to satisfy the requirement to have no PT-CT contact at normal operating conditions from the time of inspection up to the end of the next periodic inspection interval. Any corrective action required to remove /prevent PT-CT contact prior to end of the next periodic inspection interval should be supported by a request for disposition.

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Question: To demonstrate compliance with Clause 12.2.5.2.3(b) is it necessary to demonstrate that there is no pressure-tube-to-calandria-tube contact in an operational state at the inspection time and up to the end of the next periodic inspection interval?

Answer: Yes

Question: Is an owner/operator expected to consider the effects of change in the in- service loads (i.e., elastic response due to defueling the channel for inspection or to fueling the channel for operation) when evaluating inspection findings against the acceptance standards in Clause 12.2.5.2.3 (b)?

Answer: Yes

Posted July 30, 2020

The following interpretation regarding Clauses 1.5, 2.2, 4.3.7.2 to 4.3.7.4, 10.3.7, 10.3.8, 10.7.1, 16.8.7 and Table 4.2 of CSA Standard Z662-19, Oil and gas pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question 1a: A pipeline is constructed to an earlier edition of CSA Z662 (e.g. 2015) and requires some instances of change as shown below (change in service, increase in MOP, resumption). The class location designation as assessed per Clause 10.7.1 has not changed since the 2019 edition has been released. The pipeline has also not had a new crossing per 10.8.1.

If the pipeline requires a change in service fluid (Clause 10.3.7) which modifies the application of the pipeline from one row in table 4.2 to another e.g. “Gas (non-sour service)” to “Sour service fluid”, or from “LVP liquid hydrocarbon (with low flammability)” to “LVP liquid hydrocarbon (with high flammability)” does the design thickness calculation have to use location factors and/or designations as determined by the 2019 edition?

Answer 1a: Yes

Question 1b: If the pipeline requires a change in service condition per clause 16.8.7, which does not change the application of the pipeline from one row in table 4.2 to another e.g. remains “sour service fluid” does the design thickness calculation have to use location factors and/or designations as determined by the 2019 edition.

Answer 1b: No

Question 2a: Is it the intent of the standard that, if the pipeline from the scenario in question 1a) requires a change in service fluid (Clause 10.3.7) from one type of LVP (other than fresh water), to another type of LVP (other than fresh water) e.g. from LVP multiphase to LVP liquid hydrocarbon (with high flammability) do the DGA requirements as specified in clauses 4.3.7.2 through 4.3.7.4 apply?

Answer 2a: No

Question 2b: Is it the intent of the standard that, if the pipeline requires a change in service fluid (Clause 10.3.7) from something other than LVP (e.g. Gas) to a type of LVP (other than fresh water), do the DGA requirements as specified in clauses 4.3.7.2 through 4.3.7.4 apply?

Answer 2b: Yes

Question 3: If the pipeline from the scenario in question 1a) requires upgrading to a higher maximum operating pressure (Clause 10.3.8) does the design thickness calculation have to use class location factors and/or designations as determined by the 2019 edition?

Answer 3: Yes

Posted July 30, 2020

The following interpretation regarding Clauses 1.5, 2.2, 4.3.7.2 to 4.3.7.4, 10.7.1, and 10.7.2 note of CSA Standard Z662-19, Oil and gas pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question 1a: An LVP pipeline (other than freshwater) is constructed to an earlier edition of CSA Z662 (2015) and has been subject to a class location change as determined by Clause 10.7.1 and 10.7.2 because of an increase in housing. This change in class location happens to have occurred by a river.

Does the company have to determine whether the river would be considered a DGA for this existing line per Clause 4.3.7.2?

Answer 1a: No

Question 1b: Does the company have to determine if a release from the pipeline can affect this river or other DGA's in the area that the company has previously designated as required by Clause 4.3.7.3?

Answer 1b: No

Question 1c: Would Clause 4.3.7.4 apply to the scenario in Question 1a?

Answer 1c: No

Posted July 30, 2020

The following interpretation regarding Clauses 1.5, 2.2, 10.7.1, and 10.15.2 of CSA Standard Z662-19, Oil and gas pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question 1a: A pipeline is constructed to an earlier edition of CSA Z662 (e.g. 2015) and requires reactivation, per Clause 10.15.2, after a period of deactivation. Since the 2019 edition:

- The class location designation, as assessed per Clause 10.7.1, has not changed.
- The service fluid has not changed, as described in Clause 10.3.7
- There have been no new crossings per Clause 10.8.1.

Do the location factors and/or designations as determined by the 2019 edition now apply to the pipeline?

Answer 1a: No

Question 1b: Do the DGA requirements as specified in Clauses 4.3.7.2 through 4.3.7.4 of the 2019 edition now apply to the pipeline described in question 1a?

Answer 1b: No

Posted July 30, 2020

The following interpretation regarding Clauses 1.5, 2.2, 4.3.7.2 to 4.3.7.4, 10.10.2.5.1, 10.10.2.5.2, 10.11.2.3.1, and 10.11.2.3.2 of CSA Standard Z662-19, Oil and gas pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question 1a: An LVP pipeline (other than fresh water) is constructed to an earlier edition of CSA Z662 (e.g. 2015) and requires assessment of corroded areas per Clause 10.10.2.5.1 and assessment of grinding per Clause 10.11.2.3.1.

If the anomaly was in a location that could affect a DGA, do the limitations on location factor (Clause 4.3.7.4) apply to the equation in 10.10.2.5.1 or 10.11.2.3.1?

Answer 1a: No

Question 1b: If the pipeline was built to the 2019 edition and the anomaly was in a location that could affect a DGA, do the limitations on location factor (Clause 4.3.7.4) apply to the equation in 10.10.2.5.1 or 10.11.2.3.1?

Answer 1b: Yes

Posted July 30, 2020



The following interpretation regarding Clause 7.7.8.3 of CSA Standard Z662-19, Oil and gas pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question: Is it the intent that acceptable “depth” measurement of a slag inclusion **not exceed** 1mm in any direction?

Answer: Yes

Posted July 30, 2020

The following interpretation regarding Clause 6.5 of CSA Standard Z245.11-17, Steel fittings, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question 1: Does Clause 6.5.2 require that scraper bars be attached with full penetration welds per Clause 6.3.2?

Answer 1: No

Question 2: Does Clause 6.5.1 allow weld joint designs other than “full penetration” to be specified for the attachment of scraper bars in a tee?

Answer 2: Yes

Posted July 30, 2020

The following interpretation regarding Clause 12.7.5.2 & 4.7.1 of CSA Standard Z662-19, Oil and gas pipeline systems, has been approved by the CSA Technical Committee on *Petroleum & Natural Gas Industry Pipeline Systems and Materials*.

Question: Does Clause 12.7.5.2 include all welds that cannot be pressure tested?

Answer: Yes

Question: May soil restraint, such as that provided by specified depth of cover or soil density, be considered as a “special design measure” per Clause 4.7.1?

Answer: Yes

Posted June 25, 2020

The following interpretation regarding Clause 4.4.2 of CSA Standard A440.4-19, Window, door, and skylight installation, has been approved by the Members of the CSA Standards Technical Committee on *Performance Standard for Windows*.

Question 1: Does Clause 4.4.2 of CSA A440.4-19 consider that manufacturers complying with this clause should provide written installation instructions, that are to be used on-site, which would include anchor details as required by NAFS-17?



Answer: Yes

Question 2: Does Clause 6.1.3 of CSA A440.4-19 consider that, given the requirements of Clauses 10.1.1 and 10.2.4.1, continuity between the fenestration product and the water-resistive barrier should be provided in a way to prevent impacts on the fenestration product drainage system and the installation cavity drainage systems?

Answer: Yes

Question 3: Clause 6.5.4.1 of CSA A440.4-19 does not specify a minimum thickness when plywood is used as the required wood sub-frame. Does 19 mm thick plywood, that is sufficient to resist the loads imposed on it, meet the requirement of Clause 6.5.4.1 of CSA A440.4-19?

Answer: Yes

Question 4: Do the requirements of Clause 8.6.3 with respect to the insertion of the drywall into the J-mould only apply when the drywall is intended to serve as the airtight component of the air barrier system?

Answer: Yes

Posted June 5, 2020

The following interpretation regarding Clauses 7.11.2 (Basis), 7.11.5 Filtration Effect (Filtration Effect) of CSA Standards N288.2-14 and N288.2-19, Guidelines for calculating the radiological consequences to the public of a release of airborne radioactive material for nuclear reactor accidents, has been approved by the Members of the CSA Standards Technical Committee on *Environmental Management for Nuclear Facilities (N288)*.

Rationale: The term “filtration” normally applies to the reduction in indoor particulate concentrations compared to out of doors particulate concentrations arising from a filtration effect of a home with closed doors and windows.

The inhalation pathway protection factor for indoor occupancy assumes a filtration effect when outside air mixes with air inside the house. In the case of tritium (HTO) the filtration effect is negligible, so it is not appropriate to apply the protection factor in Clause 7.11.5, since it was derived for particulates.

Question: Does CSA N288.2 apply a protection factor less than 1 to the dose from a short term tritium release to an individual at the site boundary?

Answer: No

Posted May 28, 2020

The following interpretation regarding Clause 4.8.5 of CSA Standard ANSI Z83.25/CSA 3.19, Direct gas-fired process air heaters, has been approved by the Members of the CSA Joint Technical Committee on *Gas Standards*.



Question: Last sentence of paragraph: “For intermittent or continuous pilot ignition systems, the supervision shall be at a point furthestmost from the source of ignition.” Is the intent of this paragraph is to verify flame propagation?

Answer: Yes

Question: Was this paragraph written to apply to flame rods or other localized flame detection methods?

Answer: Yes

Question: Were the operating characteristics of UV sensors considered when paragraph was authored?

Answer: Yes

Posted May 28, 2020

The following interpretation regarding Clause 4.8.4 of CSA Standard ANSI Z83.25/CSA 3.19, Direct gas-fired process air heaters, has been approved by the Members of the CSA Joint Technical Committee on *Gas Standards*.

Question 1: Section 4.8.4 states that “The automatic gas ignition system shall operate in accordance with the following, as applicable: (f) The primary safety control shall de-energize all main gas safety shutoff valves within the time specified in Table 1 after flame failure. A single trial for re-ignition may occur but, if it is not successful or is not provided, the primary safety control shall assume a lockout position and shall require a manual restart.” The definition of primary safety control is “a control responsive directly to flame properties, sensing the presence of flame and causing fuel to be shut off in the event of ignition or flame failure requiring manual reset.” Was it the intention of section 4.8.4, along with the definition of primary safety control, to require that a flame safeguard device has its own built in integral manual reset?

Answer: No

Question 2: If the answer to Question 1 is no, can the manual reset/restart functionality be part of an overall control system which prevents the burner from automatically relighting, but in which the flame safeguard does not have its own internal manual reset?

Answer: Yes

If the answer is yes, restarting of the burner would require manual intervention with the control system, but not specifically manually resetting the flame safeguard.

Agreed.

Posted March 18, 2020

The following interpretation regarding Clauses 8.3.4 and 10.1.4 of CSA Standard N293-12, 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 (N293)*.

Background: There is a concern that an inherent conflict-of-interest (perceived or real) could exist if the vendor tasked with determining the personnel and equipment needs [via c.10.1.4] is also tasked with assessing the sufficiency of personnel and equipment [via c.10.2.3].

The lineage that the Fire Protection Program Audit [c.8.3.4] is to include an assessment of sufficient industrial fire brigade personnel and equipment [c.10.2.3]. It relies on the position that the “performance levels” to be assessed via an emergency response team drill [c.8.3.4(h)] are those specified in c.10.8, Industrial Fire Brigade Performance Criteria, as “performance requirements”.

Question: Can the 3rd party vendor performing Fire Analysis as per 10.1.4 also perform Fire Protection Program Audit as per 8.3.4?

Answer: Yes

Posted February 20, 2020

The following interpretation regarding Clause 6.2.7.3 of CSA Standard C22.3 No. 7-15, Underground Systems, has been approved by Members of the CSA Standards Technical Committee on *Underground Systems*.

Background: Quebec department of transportation (Transport Québec) owns subsurface chambers in which supply conductors for surveillance cameras (600 V) and fiber optic cables are installed. Clause 6.2.7.3 of the C22.3 No.7-15 states that supply cables and communication cables may occupy the same subsurface chamber if “(...) c) communication cables or equipment with exposed non-current-carrying parts is bonded to the supply neutral and the supply cable metallic shield/sheath and the whole effectively grounded;(...)”

Question: Does it means that the dielectric jacket of a fiber optic cable shall be connected to the supply neutral conductor?

Answer: No.