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 December 20, 2019

The following interpretation regarding CSA standard N285.0-17, General requirements for pressure-retaining systems and components in CANDU nuclear power plants, has been approved by the Members of the CSA Standards Technical Committee on CANDU Nuclear Power Plant Pressure-Retaining Systems and Components (Z953):

**Question:** Is it the intent of the standard that a certificate holder with a quality assurance program meeting the requirements of Clause 10.2 be allowed to fabricate non-standard fittings without operations that change material properties (such as machining)?

**Answer:** Yes, provided such activities are within the scope of the Certificate Holder’s quality assurance program.

Posted December 20, 2019

The following interpretation regarding CSA Standard CSA Z662-19, Clause 4.1.10, has been approved by the K110 Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):

**Question 1:** Is an Engineering assessment, as detailed in Clause 4.1.10, always required when designing a new pipeline?

**Answer:** No.

**Question 2:** Must the requirements of Clause 4.1.10 be applied to design focused engineering assessments, such as in 4.3.2.1 c)?

**Answer:** Yes

Posted December 20, 2019

The following interpretation regarding CSA Standard CSA Z662-19, Clause 4.3.14.2, has been approved by the K110 Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):

In regard to the requirements of CSA Z662 4.3.14.2 to verify the maximum circumferential stress due to internal pressure at any location in wrought steel welding elbows and factory-made bends:

**Question 1:** Is this clause intended to apply to listed fittings, which have undergone successful analyses or proof testing?
Answer: Yes

Question 2: Is this clause intended to apply only to unlisted fittings and factory-made bends?

Answer: No

Question 3: If the answer to 1 above is yes, does this then override the Interpretation of Z245.11-17 Clause 5.1 posted on July 17, 2019 for design wall thickness for critical areas for fittings subject to successful burst testing?

Answer: No

Question 4: Does the actual measured wall thickness for critical areas need to comply with 31.3 304.2.1 for wrought steel welding elbows, if proof testing data indicates that it is unwarranted (proof testing indicates a lower wall thickness can be used)?

Answer: No

Question 5: Must the requirements of Clause 4.3.14.2 be satisfied in addition to any proof test results?

Answer: Yes

Posted December 20, 2019

The following interpretation regarding CSA Standard CSA Z662-19, Clause 5.3.5, has been approved by the K110 Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):

Question 1: In light of the changes to Clause 5.3.5 in Z662-19, and in consideration of stainless steel instrument and control tubing and piping specifically, are the design requirements of Z662-19 Clause 4.19 superseded by the design requirements of ASME B31.3?.

Answer 1: No, they are supplemental

Question 2: In light of the changes to Clause 5.3.5 in Z662-19, and in consideration of stainless steel instrument and control tubing and piping specifically, are the pressure testing requirements of Z662-19 Clause 8.4 superseded by the pressure testing requirements of ASME B31.3?

Answer 2: Yes

Posted December 20, 2019

The following interpretation regarding CSA Standard CSA Z662-19, Clause 7.2.5, has been approved by the K110 Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):
**Question:** Under the provision of CSA-Z662, scope Clause 1.8, is it permissible to perform field joining of pipelines (circumferential butt welds) with the fully automatic, autogenous welding process identified as Induction-Kinetic Welding (“IKW”), previously approved under ASME IX, Code Case #2799? This would be a logical extension of the scope already permitted under Clause 7.2.5?

**Answer:** No, out of scope. Further clarification is provided in the commentary to Clause 1.8

*Posted December 20, 2019*

The following interpretation regarding CSA Standard CSA Z662-19, Clause 10.6.1.1, has been approved by the K110 Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):

**Question:** Is it the intent of Clause 10.6.1.1 i) to dictate that operating companies perform periodic depth of cover measurement, on every buried pipeline, even if pipeline patrolling has not indicated a change in ground condition or increased pipeline threat?

**Answer:** No

*Posted December 20, 2019*

The following interpretation regarding CSA Standard CSA Z662-19, Clause 14.4.3, has been approved by the K110 Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):

**Question 1:** For Clause 14 design, does Clause 14.4.3 refer users to ASME B31.3-16 paragraph 328.4 Preparation for Welding?

**Answer 1:** Yes

**Question 2:** For Annex I design, does Clause 14.4.3 refer users to ASME B31.3-16 paragraph 328.4 Preparation for Welding?

**Answer 2:** Yes

**Question 3:** For Annex I design, does Clause 14.4.3 refer users to ASME B31.3-16 paragraph K328.4 Preparation for Welding (in B31.3 Chapter IX High Pressure Piping)?

**Answer 3:** No

*Posted December 20, 2019*

The following interpretation regarding CSA Standard CSA Z662-15, Modifying Pretested Pipe, has been approved by the K110 Petroleum and Natural Gas Industry Pipeline Systems and Materials (Z662):

**Question 1:** If an NPS 4 Gr 359 HVP pipeline with a design pressure of 4960 kPa in a Class 2 location that has a minimum strength test pressure of 7440 kPa and uses Class 300 fittings which have a maximum allowable test pressure of 7665 kPa. The note to clause 8.7.3.1 suggests that
the test pressure should be increased to produce the stress level in the pipe after removal of the specified 1.6 mm corrosion allowance, which would be recomputed to 12,400kPa. Is it mandatory that the higher test pressure be used, upgrading fittings as required to achieve?

**Answer 1:** No, See Clause 1.9

**Question 2:** If two pipes that are designed to the same pressure and corrosion allowance are tested would calculate different minimum test pressures to achieve the design stresses after removal of all design allowances, i.e. corrosion, is it required that the piping be tested separately to achieve the target test pressures?

**Answer 2:** No, See Clause 1.9

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*Posted November 14, 2019*

The following interpretation regarding CSA Standard CSA A440.4-07, *Window, door, and skylight installation*, has been approved by the Members of the CSA Standards Technical Committee on Performance Standard for Windows (A440):

**Question 1:** Does requirements in Clause 6 *Preparation of openings and mounting procedures*, apply to any type exposure condition?

**Answer:** Yes.

**Question 2:** In accordance with Clause 1.9, more specifically with regards to the following statement: “*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.*”, does, the following explanatory or informative material in the note pertaining to Clause 6.1: “*Clause 6 provides minimum requirements for installations occurring in low- or non-exposure conditions. Before beginning any installation, see Annex A to evaluate the appropriate exposure level for the specific situation. In instances of medium- and high-exposure conditions, see Clause 10 for specific requirements for sub-sill protection.*”, invalidates any of the requirements of Clause 6 or Clause 10 for any type installation, exposure condition or specific situation?

**Answer:** No.

**Question 3:** Does the reference to informative Annex A in Notes found in Clause 9 *Vapour diffusion control at the frame-to-wall or frame-to-roof junction (critical barrier: vapour)*, makes any content of Annex A a normative requirement?

**Answer:** No.

**Question 4:** Does the reference to informative Annex A in Notes found in Clause 9 *Vapour diffusion control at the frame-to-wall or frame-to-roof junction (critical barrier: vapour)*, invalidates any of the requirements of Clause 9?

**Answer:** No.
Question 5: Does the informative examples of installation in Figure A.11 and Figure A.12 of Clause A.3, which make reference to “Maximum exposure rating: VERY HIGH”, are suitable examples of installation methods for high exposure situations, as referenced in Clause A.2?

Answer: Yes.

The following interpretation regarding CSA Standard C22.3 No. 1-15, Overhead systems and parallel, Clauses 9.1.4 and 9.1.5, have been approved by the Technical Committee on Overhead Systems:

Background: O'Reilly Engineering Services is working on behalf of a telecommunications client seeking clarification with respect to the mechanical protection of grounding conductors forming part of risers.

Question 1: Does the insulation on grounding conductors (nylon, polyethylene, pvc...) meet the requirements of "suitable non-conductive protective covering" described in Clause 9.1.5? There is no concentric neutral or armour on the grounding conductor. Only an insulation.

Answer 1: Yes, the materials mentioned are suitable non-conductive protective coverings.

Question 1b: If the answer to question 1 is no, then does an additional pvc jacket on the insulated grounding conductor meet the requirements of "suitable non-conductive protective covering" described in Clause 9.1.5?

Answer 1b: See Answer 1 above.

Question 2: In light of the note at the end of Clause 9.1.5 (Note: The non-conducting covering may also be used to provide the mechanical protection specified in Clause 9.1.4), and if the answer to question 1, or question 1b, or both is yes, then is the insulated / jacketed grounding conductor suitable as the mechanical protection specified in Clause 9.1.4?

Answer 2: No, the conductor coverings as mentioned in Questions 1 and 1(b) do not provide suitable mechanical protection.

Question 3: Does Clause 9.1.5 require that the communication facilities be bonded to the supply ground at the pole with the grounding conductor riser or can the bonding be completed at an adjacent or nearby pole?

Answer 3: No, refer to Clause 9.2.3 and Clause 9.2.4 for grounding and bonding intervals.

The following interpretation regarding CSA A23.3, Design of concrete structures standard, has been approved by CSA Technical Committee on Reinforced Concrete Design:

Question: Does the CSA A23.3 committee consider the construction of elevated LRT guideway trapezoidal box girder elements (600 tons, 32 metres in length) using site-erected falsework and
formwork with conventional surveying and concrete placement followed by self-propelled modular transporter lifting and placing, as a “lift slab” construction exemption according to 16.2.2 (b) of CSA A23.3, such that the CSA A23.4 certification requirement may be waived by the designer?

Answer No.

Posted July 17, 2019

The following interpretation regarding CSA Standard Z662-15, Cl 7.15.10.3 has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

Question 1: If a girth weld AUT scan shows several indications within a 300 mm cumulative length (as determined by their signal exceeding 40% screen height), is it necessary to include the portion between the indications with a signal below 40% of screen height as part of the indication length?

Answer 1: No, in accordance with the Standard, a signal with less than 40% screen height is not an indication

Question 2: If a girth weld AUT scan shows a weld indication (as determined by its signal exceeding 40% screen height) that is less than 300 mm in length, is it required that the ultrasonic signal from both before and after be examined to determine if the indication might extend beyond the length where the signal exceeds 40% screen height?

Answer 2: No

Question 3: If the indication described in question 2 does display an ultrasonic signal below 40% of screen height, does it have to be included as part of the total length?

Answer 3: Not Applicable

Question 4: If a girth weld AUT scan shows a signal that is less than 40% screen height, does the signal from both adjacent AUT channels have to be examined to determine if an indication exceeding 40% signal height lies across two adjacent AUT channels, and then its length be assessed as a single indication?

Answer 4: The question is not relevant

Posted July 17, 2019

The following interpretation regarding CSA Standard Z662-15, Cl 7.10.3 has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

Question: If a pipeline is located under the paved shoulder of a road, but follows the road in parallel for several kilometers before actually crossing it, are 100% non-destructive inspections required on all joint welds for the full length of the pipe?
The following interpretation regarding CSA Standard Z245.30-18 Table 7 and Clauses 9 & 10 including footnotes has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question 1:** Is it required to perform an adhesion test onto the outer jacket when using FC7 for an FC6 system outer layer if the FC7 MQAP does not require it?

**Answer 1:** Yes

**Question 2:** Is it required to perform an adhesion test onto the polyurethane foam when using FC7 for an FC6 system outer layer if the FC7 MQAP does not require it?

**Answer 2:** No

The following interpretation regarding CSA Standard Z662-15 Clause 4.3.5.1 has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question:** Does the intended design pressure of 9,930 kPa still apply after rounding?

**Answer:** Yes

The following interpretation regarding CSA Standard Z245.30-18 Clause 1.2 a) has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question:** SPC SP 2888 is an epoxy hybrid (contains a fraction of urethane in a predominantly epoxy matrix). With a glass transition temperature below 115 C, is this product considered a System FC1 under CSA Z245.30?

**Answer:** Yes
The following interpretation regarding CSA Standard Z662-15 Clauses 4.4.4 and 4.4.5 has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question 1:** In the case where an engineering assessment is not completed, is it appropriate to use the valve spacing’s listed in Table 4.7 under Clause 4.4.5?

**Answer 1:** Yes

**Question 2:** In the case where a pipeline segment contains more than one class location, does the valve spacing in Table 4.7 for the higher class location apply to each individual length of that higher class location, regardless of length?

**Answer 2:** Yes, the distance between sectionalizing valves shall not exceed the distance stated in Table 4.7 for every length of the higher class location.

**Question 3:** In the case of a pipeline segment containing more than one class location, could an engineering assessment be used per Clause 4.4.4 to determine the number and location of sectionalizing valve which could result in spacing different from Table 4.7?

**Answer 3:** Yes

*Posted July 17, 2019*

The following interpretation regarding CSA Standard Z245.22-18 Clause 8.3 has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question:** Clause 8.2.2 through 8.2.4 allows repairs to foam insulation, two repairs per 12 m joint and repair length up to 3 meters in length. Clause 8.3 only states two repairs to a maximum of 300mm. Foam repairs completed under 8.2.3 & 8.2.4 will require external polyethylene repair. Is it permissible to perform external polyethylene jacket repairs within the same limits as specified in 8.2.2 through 8.2.4?

**Answer:** Yes

*Posted July 17, 2019*

The following interpretation regarding CSA Standard Z245.1-18 Clause 1.2.3, Z662-15 Table 5.2 & Table 5.3, Z662-19 Table 5.3 has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question:** Do Z662-15, Z662-19 or Z245.1-18 include minimum Charpy absorbed energy requirements for Cat I pipe?

**Answer:** No

*Posted July 17, 2019*
The following interpretation regarding CSA Standard Z662-15 Clauses 4.14.2.11 b) and 4.14.3.8 c) has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question 1 a)**: Does CSA Z662 require the company to define an identification system that is suitable for the facility?

**Answer 1 a)**: Yes

**Question 1 b)**: Does CSA Z662 permit the “function” of the aboveground piping based on the company-defined identification system referring to:

i) Product type (e.g., natural gas, steam, oil, H2S)?

**Answer 1 b) i)**: Yes

ii) Flow direction?

**Answer 1 b) ii)**: Yes

iii) Temperature?

**Answer 1 b) iii)**: Yes

iv) Any additional characteristics?

**Answer 1 b) iv)**: Yes

**Question 1 c)**: If yes to 1) b) iv) above, does CSA Z662 permit the terms describing the function of the piping such as “suction”, “discharge”, “vent”, “drain” be used to identify the function?

**Answer 1 c)**: Yes

**Question 2 a)**: Does CSA Z662 permit that a label, a sign or a color code on the piping satisfy the requirement for clear identification of function of the piping?

**Answer 2 a)**: Yes

**Question 2 b)**: Is a diagram posted inside the station (without physical identification of the piping) sufficient to clearly identify the function of the piping?

**Answer 2 b)**: No

**Question 2 c)**: Is a diagram posted inside the station, in addition to some form of identification of the piping, sufficient to clearly identify the function of the piping?

**Answer 2 c)**: Yes

**Question 3**: Does CSA Z662 require above ground piping at a given station to be identified for its function?

**Answer 3**: Yes

**Question 4**: Does CSA Z662 require identification of the function of the above ground station piping as a whole? E.g.: compressor station X or pump station Y?

**Answer 4**: No
The following interpretation regarding CSA Standard Z662-15 Clause 12.10.8 has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question 1**: Is it the intent of Clause 12.10.8 to allow the use of ASME BPVC.IX welding procedure specifications for maintenance welding of in-service distribution piping, in accordance with Clause 7.2.5 as applicable?

**Answer 1**: Yes

**Question 2**: If the answer to Q1 is “yes”, would a welding procedure developed in accordance with ASME BPVC.IX overlaid with the additional Clause 12 in-service welding requirements (i.e. for wall thickness less than 6.4 mm, using a welding procedure that controls the potential for burn through) be permissible for maintenance welding of in-service distribution piping?

**Answer 2**: Yes

The following interpretation regarding CSA Standard Z662-15 Clause 7.15.6 has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question 1**: Clause 7.15.6 addresses the qualification requirements for ultrasonic technicians, but does not address the qualifications required for ultrasonic technicians performing Phased Array (PA) and Time of Flight Diffraction (TOFD) examinations. The qualification/certification document for ultrasonic technicians, CAN/CGSB-48.9712/ISO 9712, does not include the qualification of PA or TOFD technicians. Is it a requirement that the technician be certified to another ISO 9712 standard that does include a PA or TOFD certification, e.g. PCN or CSWIP?

**Answer 1**: No

**Question 2**: Is an in-house PA or TOFD certification, e.g. SNT-TC-1A, an acceptable certification provided the technician has a CGSB UT certification?

**Answer 2**: Outside the scope of Z662

The following interpretation regarding CSA Standard Z245.20-18, Clause 6.1.3 and Z245.21-18, Clause 6.1.1 has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question 1**: In instances where a new revision to CSA Z245.20 has been published and there has been no changes to the annual qualification requirements or the respective test methods are pre-
existing annual qualifications enough for an applicator to be compliant with clause 6.1.3 of CSA Z245.20, even if the manufacturer supplied certifications reference the previous revision of the standard?

Answer 1: Yes

Question 2: If the above answer is “No”, could the question of compliance be addressed by the coating manufacturer updating their annual certification to include a reference to the latest standard?

Answer 2: N/A

Question 3: In instances where a new revision to CSA Z245.21 has been published and there has been no changes to the coating qualification requirements or the respective test methods, does an applicator need to repeat clause 6.1 qualification testing to be compliant with the latest revision of the standard?

Answer 3: No

The following interpretation regarding CSA Standard Z245.11-17 – Clause 5.1 and Z245.21-18, Clause 6.1.1 has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

Question 1: Does the pressure design wall thickness for critical areas has to be determined and recorded for the prototype fitting (as well as) for fittings it represents?

Answer 1: Yes

Question 2: Does the specification require the critical areas be subjected to reinforcements via thickness enhancements irrespective (if) the data yielded from proof tests indicate that it is unwarranted?

Answer 2: No

Question 3: Does the specification prevent the manufacturer from adopting the (specified nominal wall thickness) as the pressure design thickness for the critical areas, (if) the data yielded from proof tests indicate that it is appropriate to do so?

Answer 3: No. The answers to the 3 questions above are provided assuming that the requirements of Clause 5 are being followed.

The following interpretation regarding CSA Standard Z662-15 Clause 9.2.5 has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:
**Question:** Does installation mean application of the coating to the pipe?

**Answer:** No

*Posted July 17, 2019*

The following interpretation regarding CSA Standard Z662-15 – Clause 7.11.11 has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question:** Is the intention of Clause 7.11.11.2 and 7.11.11.3 that, if a burn-through indication is greater than the dimension specified and the density within this indication does not exceed the density of the thinnest adjacent parent material, that the indication is acceptable?

**Answer:** No

*Posted May 8, 2019*

The following interpretation regarding CSA Standard N293-12, Clause 8.2.3.4.2, has been approved by the Technical Committee on Fire Protection for Nuclear Power Plants (N293):

**Question:** Is CSA N293-12 Clause 8.2.3.4.2 intended to address permanent storage of combustibles?

**Answer:** Yes

*Posted May 8, 2019*

The following interpretation regarding CSA Standard N293-07, Clause 8.2.3.7.2 d), has been approved by the Technical Committee on Fire Protection for Nuclear Power Plants (N293):

**Question:** Is the intent of CSA N293-07 Clause 8.2.3.7.2 d) that alarm, trouble, and supervisory signals are monitored by the CACF.

**Answer:** Yes

*Posted May 1, 2019*

The following interpretation regarding CSA B45.5/IAPMO Z124, *Plastic Plumbing Fixtures*, has been approved by the Members of the CSA Standards Technical Committee on Plumbing Fixtures:

**Question:** As indicated in Figure 8, the “top of drain opening” is the horizontal plane across the floor of the shower receptor at the waste opening. In some case, the actual waste opening sits in a depression in the shower floor. Once a waste fitting is installed, the grate (top of the waste fitting) is level with the floor of the shower receptor. In the case where a waste fitting is not factory supplied with the shower base, is the threshold measured from (refer Figure 1):
Answer: Point “A”: the horizontal plane across the floor of the shower receptor above the actual waste opening.

![Figure 1](image)

The following interpretation regarding CSA B45.5/IAPMO Z124, *Plastic Plumbing Fixtures*, has been approved by the Members of the CSA Standards Technical Committee on Plumbing Fixtures:

**Question:** As indicated in Figure 8, the “top of drain opening” is the horizontal plane across the floor of the shower receptor at the waste opening. In some cases, the actual waste opening sits in a depression in the shower floor. Additionally, that depression sits in a secondary depression which houses a decorative tile. Once a waste fitting is installed, the grate (top of the waste fitting) still sits well below the floor of the shower receptor. For reference, Figure 2 depicts the unit with decorative tile in place. In the case where a waste fitting is not factory supplied with the shower base, is the threshold measured from (Refer to Figure 1):

**Answer:** Point “A”: the horizontal plane across the floor of the shower receptor above the actual waste opening.

*Posted May 1, 2019*
The following interpretation regarding CSA Standard CAN/CSA-Z271-10 (R2015), Safety code for suspended platforms, Clause 8.4.6.8, has been approved by the Members of the CSA Standards Technical Committee Suspended Access Equipment:

**Question**: Is there any specific type of device required when using load limit device as per CSA Z271-10 Clause 8.4.6.8

**Answer**: No

The following interpretation regarding CSA Standard C22.3 No. 7-15, Underground Systems, Clause 11.6.2, have been approved by the Technical Committee on Underground Systems:

**Background**
Mosaic Transit Group is the consortium contracted by Metrolinx to design, build, and maintain the Finch West Light Rail Transit project in the city of Toronto. Our designer, ARUP, has referenced a CSA standard in their rationale for the duct bank design. The standard referenced is as below;

Our goal for the duct bank is to locate it as shallow as possible to avoid conflict with existing utility crossings. There will be no external utilities carried in our duct bank, only those conductors needed for LRT applications. The track slab / duct bank configuration we are examining is depicted below;
**Question 1:** Does this clause apply to duct banks that only service the LRT?

**Answer 1:** Yes, it does apply. Clause 11.5.1 also applies.

**Question 2:** As per the standard “The minimum depth may be reduced where agreed upon by the parties concerned”. Does this mean that so long as our contracting authority, Metrolinx, approves our design we are given relief from this clause?

**Answer 2:** No, all other parties that cross under the railway including Metrolinx (owner), and Road Authority or City of Toronto are the parties. Other Utilities will have to sign on as well.

**Question 3:** As per the clause “Where practicable…”, does this mean that should specific utility crossings require a reduction of the clearance we are given relief from this clause?

**Answer 3:** No.

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The following interpretation regarding CSA Standard Z662-15, Table 4.1, has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question:** In table 4.1 Class 2 has a number of sub-sections including:

d) an industrial installation (e.g., a chemical plant or a hazardous substance storage area) where release of the service fluid from the dangerous or environmentally hazardous condition

Can you please clarify if the application of the above clause is correct? When routing a pipeline near an existing well pad does the “Area Classification” necessarily change from a Class 1 to a Class 2, due to Clause D if the well pad is classified as a Sour Service, compared to a non-sour service will pad? Note all other aspects satisfies a class I designation.

**Answer:** No, a designation of Class 2 location is not required solely due to sour service.

*Posted April 3, 2019*
The following interpretation regarding CSA Standard Z662-15, Clause 10.11.1.2, has been approved by the Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question**: Is it still a requirement to employ the bonding and grounding procedures even if there is a known conductive parallel path?

**Answer**: Yes, appropriate procedures are required. It may or may not include additional grounding or bonding depending on the specific situation.

*Posted April 3, 2019*

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

**Question 1**: Would at least two components that are separated by a distance of less than 10 pipe diameters fabricated and tested in a shop prior to installation in a pipeline system be considered a fabricated assembly?

**Answer 1**: Yes, in accordance with the Clause 2 definition of “fabricated assembly”

**Question 2**: Would at least two components that are separated by a distance of less than 10 pipe diameters fabricated on site, tested or not, prior to installation in a pipeline system be considered a fabricated assembly?

**Answer 2**: Yes, in accordance with the Clause 2 definition of “fabricated assembly”

**Question 3**: Would at least two components that are separated by a distance of less than 10 pipe diameters that are directly joined into a pipeline system without any prefabrication be considered a fabricated assembly?

**Answer 3**: No, in accordance with the Clause 2 definition of “fabricated assembly”

**Question 4**: If pipe and components are to be installed in a location that can be classified as multiple location factors listed in Table 4.2 such as a fabricated assembly in a station, does the most stringent location factor apply?

**Answer 4**: Yes

**Question 5**: Is a pig trap considered a fabricated assembly if assembled prior to being joined into the pipeline system?

**Answer 5**: Yes, in accordance with the Clause 2 definition of “fabricated assembly”

**Question 6**: For traps located at a station (compressor, metering, pump or pressure regulating), could the mainline valves on the pipeline side of the pig traps labeled Note 1 be considered station isolation valves in the sketch below?

**Answer 6**: Yes
**Question 7:** For traps located at a station (compressor, metering, pump or pressure regulating), could the valves adjacent to the pig trap (side valve and kicker valve) labeled Note 2 be considered station isolation valves in the sketch below providing all four valves are closed?.

**Answer 7:** Yes

![Diagram of pipeline system with valves](image)

**Question 8:** Must all fabricated assemblies (e.g., pig traps) installed outside of a station’s isolation valves be considered "other" when selecting the applicable location factor?

**Answer 8:** No, the most stringent applicable location factor in Table 4.2 applies.

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**Posted April 3, 2019**

The following interpretation regarding CSA Standard Z245.30-18, Clauses 1.2, 12.1 and Table 1, has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

The scope of the Z245.30-14 Clause 1.2 identified “liquid-applied or fusion bond epoxy (FBE) coating”, while the Z245.30-18 Clause 1.2 identifies “liquid-applied epoxy or fusion bond epoxy (FBE).

**Question 1:** Does the scope in Z245.30-18 mean to include liquid-applied epoxy hybrid coatings?

**Answer 1:** Yes.

**Question 2:** Does the scope in Z245.30-18 mean to include liquid-applied 100% urethane coatings?

**Answer 2:** No.

Clause 12.1 b) “The coating shall reach a thumbnail hard state”.

**Question 3:** Is the use of a thumbnail, as stated in Clause 12.1 b), a test method?

**Answer 3:** No.

Table 1: Manufacturer qualification coating test requirements for systems FC1, FC2 and FC3
**Question 4**: Is flexibility testing in the field applicable to girth welds coated with liquid epoxy coating(s)?

**Answer 4**: No.

 Posted April 3, 2019

The following interpretation regarding CSA Standard Z245.30-18, Clause 7.5.4.1, has been approved by the K110 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.

 Posted April 3, 2019

The following interpretation regarding CSA Standard Z245.30-18, Table 6, has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question**: Is the intent of Table 6 – Appearance, to mandate that 100% of pinholes be detected by visual inspection?

**Answer**: No.

 Posted April 3, 2019

The following interpretation regarding CSA Standard Z662-15, Clause 4.18.2 & M.5.1, has been approved by the K110 TC - Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question 1**: The pressure control and overpressure protection for a pipeline as required by Clause 4.18.2 is accomplished by a local control system as described in Annex M.5 and inspected, assessed and tested in accordance with Clause 10.9.5.2. The local control system incorporates programmable logic controllers (PLCs). Does Clause 4.18.2 a) require two completely separate PLCs to be provided as shown below?
Answer 1: No

**Question 2:** If the answer to Question 1 is “no”, would two separate and independent control loops within a single PLC as shown below, satisfy the requirements of Clause 4.18.2; provided that failure of one system cannot lead to failure of the other system?

Answer 2: Yes

*Posted April 3, 2019*

The following interpretation regarding CSA Standard Z245.20-14, Clause 12.10, has been approved by the K110 Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials:

**Question:** Regarding the application of ARO coatings for a System 2B coating system for testing porosity: is it acceptable to spray the ARO on a prepped bar (not previously coated with FBE) and rate it for cross sectional porosity?

**Answer:** No.

*Posted March 5, 2019*

The following interpretation regarding CSA Standard C22.1-18, *Canadian Electrical Code, Part I*, has been approved by the Technical Committee for Canadian Electrical Code, Part I (Inside Wiring Rules):

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

Question 2: For the application of Rule 8-304(1) is a quad receptacle considered as one outlet?
Answer 2: Yes

Question 3: 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 degrees C has Teck 90 connected to it to feed a piece of equipment that is marked with a maximum conductor termination of 75 degrees C, yet part way through the cable run, the Teck 90 goes through an area with an ambient exceeding 30 degrees C, would we use the 90 degree column of Table 5A so long as the high ambient area is more than 1.2 meters away from the equipment in accordance with 4-006 (1) & (4)?
Answer 3: Yes

Question 4: In Sub-rule 64-222 4), does the phrase “removal of a photovoltaic module” refer to a singular photovoltaic module only?
Answer 4: Yes

Question 5: In Rule 64-222, 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?
Answer 5: Yes

 Posted March 5, 2019

The following interpretation regarding CSA B45.5/IAPMO Z124, Plastic Plumbing Fixtures, has been approved by the Members of the CSA Standards Technical Committee on Plumbing Fixtures:

Question: As indicated in Figure 8, the “top of drain opening” is the horizontal plane across the floor of the shower receptor at the waste opening.
In some case, the actual waste opening sits in a depression in the shower floor. Once a waste fitting is installed, the grate (top of the waste fitting) is level with the floor of the shower receptor.
In the case where a waste fitting is not factory supplied with the shower base, is the threshold measured from (refer Figure 1):

Answer: Point “A”: the horizontal plane across the floor of the shower receptor above the actual waste opening.
The following interpretation regarding ASME A112.19.1-2018/ CSA B45.2-18 Enamelled Cast Iron Plumbing Fixtures, has been approved by the Members of the CSA Standards Technical Committee on Plumbing Fixtures:

**Question:** In clause 5.6.1.3 of ASME A112.19.1-2018/CSA B45.2-18, does the micrometer dial gauge need to be reset to the zero reading between the preload at (h) and the reload at (i)?

**Answer:** No