

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 9, 2010

The following interpretation regarding **CSA standard N293-07**, Fire Protection for CANDU Nuclear Power Plants, Clause 8.2.3.3 has been approved by the Technical Committee on Fire Protection in CANDU Nuclear Power Plants. La demande d'interprétation du 23 septembre 2010 concernant l'article 8.2.3.3 de la CSA N293-07 a été examinée par le Comité technique sur la protection contre l'incendie dans les centrales nucléaires CANDU. Le Comité est parvenu à un accord sur les réponses suivantes, qu'il a approuvées lors du vote enregistré le 8 décembre 2010.

Question: Is the intent of the last sentence of Clause 8.2.3.3 to mean that fabrics or plastic films be certified in accordance with Test Method 2 in NFPA 701? Est-ce que la dernière phrase de l'article 8.2.3.3 signifie que les tissus et les pellicules en plastique doivent être certifiés conformément à la méthode d'essai 2 de la NFPA 701?

Answer: Yes. The following is selected text from NFPA 701-2004 as referenced in CSA N293-07: "1.1.2.4 Test Method 2 shall apply to fabrics used in the assembly of awnings, tents, tarps, and similar architectural fabric structures and banners". oui. Le texte suivant est tiré de la NFPA 701-2004 à laquelle renvoie la CSA N293-07 : «1.1.2.4 La méthode d'essai 2 doit être appliquée pour les tissus utilisés dans l'assemblage des auvents, tentes, bâches et autres structures architecturales et bannières en tissu.»

Question: Is the intent of the last sentence of Clause 8.2.3.3 to mean that fabrics or plastic films be certified in accordance with the Small flame test and Large flame test in CAN/ULC-S109? Est-ce que la dernière phrase de l'article 8.2.3.3 signifie que les tissus et les pellicules en plastique doivent être certifiés conformément à l'essai de tenue au feu de petite échelle et à l'essai de tenue au feu de grande échelle de la CAN/ULC-S109?

Answer: Yes. The following is selected text from CAN/ULC S109-03 as referenced in CSA N293-07: "2.5 Flame-resistant fabrics and films shall comply with the performance requirements of both the Small-Flame Test and the Large-Flame Test". oui. Le texte suivant est tiré de la CAN/ULC S109-03 à laquelle renvoie la CSA N293-07: «2.5 Les tissus et pellicules ininflammables doivent répondre aux exigences visées à la fois par l'essai de tenue au feu de petite échelle et par l'essai de tenue au feu de grande échelle.»

Posted November 18, 2010

The following interpretation regarding **CSA standard F379 Series-09**, Packaged solar domestic hot water systems (liquid-to-liquid heat transfer, Clauses 1.3, 4.2(b) and 4.3.4(b) has been approved by the Solar Energy Technical Committee.

Question: Can a water heater storage tank that is constructed to utilize a solar heating source either as a supplemental (additional) heating source or for solar heating connection only be evaluated as an 'add-on packaged system' within F379?

Answer: No.

Posted October 7, 2010

The following interpretation regarding Clause 1.1 of **CSA Standard N291-08**, Requirements for Safety-related Structures for CANDU Nuclear Power Plants, has been approved by the Technical Committee on Concrete Containment and Safety-Related Structures. La demande d'interprétation présentée par l'EACL relativement à l'article 1.1 de la CSA N291-08 a été examinée par le Comité technique N287/N291 sur *les enceintes de béton et autres structures reliées à la sûreté* lors de sa réunion du 25 février 2010. Le comité est parvenu à un accord sur les réponses suivantes, qu'il a approuvées lors du vote enregistré le 25 février 2010.

Question: Are the safety-related structures of facilities for the storage of irradiated fuel and other radioactive waste materials noted in clause 1.1 limited to those structure or components that, should they fail to perform their intended function, will impede the safety operation and shutdown of the reactor? Les enceintes reliées à la sûreté des installations de stockage des combustibles épuisés et autres déchets radioactifs, indiquées à l'article 1.1, se limitent-elles aux structures ou autres composants qui, s'ils venaient à ne pas remplir la fonction pour laquelle ils ont été réalisés, empêcheraient le fonctionnement en toute sécurité et l'arrêt du réacteur?

Answer: Yes, but clause 1.1 also includes facilities for safe storage (wet or dry) of irradiated fuel. Oui, mais l'article 1.1 englobe aussi les installations de stockage sécuritaire (à sec ou humide) des combustibles épuisés.

Posted August 17, 2010

The following interpretation regarding Section 5.5.2 of **CSA Standard ASME A112.19.3 / CSA B45.4-2008**, Structural Integrity Testing of Sinks, has been approved by the TC on Plumbing Fixtures.

Question: Paragraph 5.5.2.3 specifies: "There shall be no structural damage or other forms of failure, e.g., tearing of the stainless steel or separation of the weld joints". Is this test also to evaluate the integrity of the fasteners (clips) of undercounter mounted sinks?

Answer: No. Load test is for the fixture not how it is installed.

Posted August 5, 2010

The following interpretation regarding the scope of **CSA Standard Z245.20-06**, (Plant-Applied External Fusion Bond Epoxy Coating for Steel Pipe), has been approved by the Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials.

Question: Does the scope of CSA Standard Z245.20-06 include two component high solids liquid epoxy coatings?

Answer: No

Posted August 5, 2010

The following interpretation regarding Clause 4.18.1.2 of **CSA Standard Z662-07**, (Oil and Gas Pipeline Systems), has been approved by the Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials.

Question: In the case of a major pipeline damage to a natural gas distribution system or extreme cold operating conditions (defined as ambient temperatures in excess of the operating Companies maximum design day degree day forecast), where we need to operate the downstream system at a pressure higher than its MOP in order to save a large number of customers, can this situation be considered an "other cause" thereby allowing the system to operate temporarily over its' MOP? In this case the pressure control system is still in place and would function at a 10% overage in MOP pressure, but the system is operating only slightly higher than MOP to save customers and for a short duration of time only.

Answer: No

Posted August 5, 2010

The following interpretation regarding Clause 7.10.3.1 of **CSA Standard Z662-07**, (Oil and Gas Pipeline Systems), has been approved by the Technical Committee on Petroleum & Natural Gas Industry Pipeline Systems and Materials.

Question #1: According to the official Z662 Commentary, the phrase “a minimum of 15% of all field welds done each day shall be radiographed” was revised in the 1999 edition of the Z662 code to read “a minimum of 15% of all production welds made each day shall be radiographed”. Is it the intent of clause 7.10.3.1 in the 2007 edition of the Z662 code that only a minimum of 15% of all production welds completed in the field (e.g. – on the pipeline site or right-of-way) are to be radiographed each day?

Answer #1: No

Question #2a: When pre-construction piping fabrication work is being performed in a fabrication shop using welding procedure specifications that have been established and qualified as specified in the ASME B&P Code Section IX (as permitted and in accordance with the requirements of Clause 7.2.5) and the engineering design does not require 100% radiography of all welds, do the requirements of Clause 7.10.3.1 for radiography (e.g. – a minimum of 15% of all production welds made each day shall be radiographed) still apply?

Answer#2a: Yes

Question #2b: Is it permissible to use the requirements for random radiography listed in Chapter VI of ASME B31.3 (e.g. – designated lot sizes for quantities of piping welds to be randomly radiographed shall be established and agreed upon between the contractor and owner) in lieu of the requirements shown in Clause 7.10.3.1 of Z662 (e.g. – 15% per day)?

Answer #2b: No

Question #3a: When pre-construction piping fabrication work joining pipe to components or components to components is being performed on site using welding procedure specifications that have been established and qualified as specified in the ASME B&P Code section IX (as permitted in Clause 7.2.5) and the engineering design does not require 100% radiography of all welds, do the requirements of Clause 7.10.3.1 for radiography (e.g. – a minimum of 15% of all production welds made each day shall be radiographed) still apply?

Answer #3a: Yes

Question #3b: Is it permissible to use the requirements for random radiography listed in Chapter VI of ASME B31.3 (e.g. designated lot sizes for quantities of piping welds to be randomly radiographed shall be established and agreed upon between the manufacturer and owner) in lieu of the requirements shown in Clause 7.10.3.1 of Z662 (e.g. – 15% per day)?

Answer #3b: No

Posted July 28, 2010

The following interpretation regarding Clause 5.5.8 of **CSA Standard B365-01**, (Installation Code for Solid-Fuel-Burning Appliances and Equipment), has been approved by the Technical Committee on Installation Code for Solid Fuel Burning Equipment.

Question: If an insert is to be installed into a factory built fireplace, is it the insert that must be tested and certified for that use?

Answer: Yes

Posted July 28, 2010

The following interpretation regarding Clause 12.2.5.2.2 (Fuel Channel Pressure Tube Inspection Reporting and Evaluation) of **CSA Standard N285.4-09**, (Periodic inspection of CANDU nuclear power plant components), has been approved by the Technical Committee. Demande d'interprétation formulée par la CCSN, concernant l'inspection, l'évaluation et l'établissement de rapport pour les tubes de force des canaux de combustible visés par la CSA N285.4-09. Les questions et les réponses ont été modifiées et se lisent comme suit.

Background:

Pressure tube volumetric inspection typically involves two separate scans. The first scan covers the full length and circumference of the pressure tube, measuring the amplitude of the ultrasonic signal response. Data from this scan is reviewed to identify indications which exceed the amplitude reporting threshold. The reporting threshold is established as part of system calibration, and is set so as to ensure reliable detection of the notches in the calibration specimens, in accordance with the requirements of Clauses 12.2.4.1.2 and 12.2.4.3.1. All relevant indications which exceed this established reporting threshold are to be reported.

In the second scan, detailed flaw characterization and sizing scans are then performed on those indications which exceed the reporting threshold as detected in the first scan. This second scan is required to obtain additional information (signal characterization, flaw length, width, and depth) which must be provided in accordance with the reporting requirements of Clause 12.2.4.6.1. The results (characterization and flaw dimensions) of this second scan provide the information needed to assess acceptability of the indication (as required by Clauses 12.2.5.1.2 and 12.2.5.2.2). For practical purposes, the characterization and sizing scans often cover a larger area than just the flaw which exceeded the reporting threshold, and may encompass other indications which did not exceed the amplitude reporting threshold in the first scan. Those indications which exceed the reporting threshold in the first scan, and which have been characterized and sized as per the reporting criteria of Clause 12.2.4.6.1, need to be evaluated for acceptability (as per the requirements for Clauses 12.2.5.1.2 and 12.2.5.2.2).

The main issue of this request for interpretation is whether or not a licensee is required to analyze all available inspection data against the acceptance criteria of Clause 12.2.5.2.2, or whether a licensee need analyze only those indications meeting the reporting requirements of the Standard.

Historique:

L'inspection volumétrique des tubes de force consiste généralement en deux balayages. Le premier balayage vise la longueur et la circonférence du tube de force, et sert à mesurer l'amplitude de la réponse aux ultrasons. Les données recueillies sont ensuite étudiées afin de déceler les indications supérieures à l'amplitude seuil. Le seuil de consignation est établi dans le cadre de l'étalonnage du système, et sa valeur est fixée de manière à permettre une détection fiable des entailles faites dans les spécimens d'étalonnage, conformément aux articles 12.2.4.1.2 et 12.2.4.3.1. Toutes les indications pertinentes supérieures à cette valeur seuil doivent être consignées.

Le deuxième balayage consiste à caractériser et mesurer les indications supérieures au seuil de consignation décelées au moment du premier balayage. Ce deuxième balayage doit être effectué afin d'obtenir des renseignements supplémentaires (caractérisation du signal, longueur, largeur et profondeur de la fissure) lesquels sont exigés par l'article 12.2.4.6.1. Les résultats (caractérisation et dimensions de la fissure) de ce deuxième balayage permettent d'évaluer si l'indication est acceptable (comme l'exigent les articles 12.2.5.1.2 and 12.2.5.2.2). D'un point de vue pratique, les balayages de caractérisation et de mesure couvrent souvent une surface plus grande que la fissure qui excédait la valeur seuil, et peuvent englober des indications qui ne dépassaient pas le seuil de consignation au premier balayage. Il n'est pas nécessaire que les indications qui dépassent le seuil de consignation au premier balayage, et qui ont été caractérisées et mesurées conformément à l'article 12.2.4.6.1, soient évaluées pour déterminer si elles sont acceptables (conformément aux articles 12.2.5.1.2 et 12.2.5.2.2).

Le principal objectif de cette demande d'interprétation est de déterminer si un titulaire de permis est tenu d'analyser toutes les données d'inspection en fonction des critères d'acceptation de l'article 12.2.5.2.2, ou s'il doit analyser uniquement les indications conformes aux critères de consignation de cette norme.

Question #1: Does Clause 12.2.5.1.2 require the licensee to evaluate all available volumetric inspection data against the acceptance criteria of Clause 12.2.5.2? Est-ce que l'article 12.2.5.1.2 exige que le titulaire de permis évalue toutes les données de l'inspection volumétrique en fonction des critères d'acceptation de l'article 12.2.5.2 ?

Answer # 1: NO. The intent of Clause 12.2.5.1.2 was that, for volumetric inspection, 'results to be evaluated' is an indication that has been characterized and dimensioned as per the reporting criteria of Clause 12.2.4.6.1.

NON. En ce qui a trait à l'inspection volumétrique de l'article 12.2.5.1.2, «les résultats à évaluer» s'appliquent à une indication qui a été caractérisée et mesurée conformément aux critères de consignation de l'article 12.2.4.6.1.

Question # 2: Does Clause 12.2.5.2.2 require the licensee to compare available volumetric inspection data against a criterion based on measured radial extent (i.e. depth through the PT wall)?

Est-ce que l'article 12.2.5.2.2 exige que le titulaire de permis compare les données de l'inspection volumétrique à des critères basés sur la longueur radiale mesurée (par rapport à l'épaisseur de paroi du tube) ?

Answer # 2: NO. The intent of Clause 12.2.5.2.2 was that a relevant indication, to be evaluated for acceptability, is an indication that has been characterized and dimensioned as per the reporting criteria of Clause 12.2.4.6.1.

NON. Dans le contexte de l'article 12.2.5.2.2, une indication pertinente qui doit être évaluée pour en déterminer l'acceptabilité, est une indication qui a été caractérisée et mesurée conformément aux critères de consignation de l'article 12.2.4.6.1.

Question # 3: To the extent that Clauses 12.2.4.3.1, 12.2.5.1.2 and 12.2.5.2.2 are to be considered as a whole, is it the intent of the Standard that there is a finite risk of overlooking some flaws whose depth exceeds 0.15mm?

Dans la mesure où les articles 12.2.4.3.1, 12.2.5.1.2 et 12.2.5.2.2 doivent être considérés comme un tout, est-ce l'intention de la norme qu'il y ait un risque limité que des fissures d'épaisseur supérieure à 0,15mm ne soient pas vues ?

Answer # 3: Yes.

Oui.

Posted July 28, 2010

The following interpretation regarding Clause 8.2.3.7.2(a), Clause 5.7.1.1, and Clause 6.8.1.1 of the **CSA Standard N293-07**, (Fire Protection for CANDU Nuclear Power Plants), has been approved by the Technical Committee on Fire Protection in CANDU Nuclear Power Plants. La demande d'interprétation, datée du 3 mars 2010, concernant les articles 8.2.3.7.2 a), 5.7.1.1 et 6.8.1.1 de la CSA N293-07 a été revue par le Comité technique sur la protection contre l'incendie dans les centrales nucléaires CANDU. Le comité a accepté les réponses qui suivent et les a approuvées par un scrutin qui s'est terminé de 3 mai 2010.

Question #1: In Clause 8.2.3.7.2(a), is the term “non-combustible materials, as defined in the NBCC” intended to mean “non-combustible construction, as defined in the NBCC”? À l'article 8.2.3.7.2 a), le terme «matières incombustibles, selon la définition du CNBC» signifie-t-il «construction incombustible», selon la définition du CNBC ?

Answer #1: Yes. It is intended that, wherever possible, relocatable structures be constructed using non-combustible materials as defined by the NBCC. Because limited amounts of combustible material are permitted by the NBCC in buildings of non-combustible construction, the requirements of Clause 8.2.3.7 are in addition to the NBCC requirements. Oui. Chaque fois que possible, les structures déménageables doivent être construites de matières incombustibles, selon la définition du CNBC. Étant donné que la quantité de matières combustibles permise par le CNBC dans les bâtiments de construction incombustible est limitée, l'article 8.2.3.7 s'ajoute aux exigences du CNBC.

Question #2: In Clause 5.7.1.1, is the term “non-combustible materials, as defined in the NBCC” intended to mean “non-combustible construction, as defined in the NBCC”? À l'article 5.7.1.1, le terme «matières incombustibles, selon la définition du CNBC» signifie-t-il «construction incombustible», selon la définition du CNBC ?

Answer #2: Yes. It is intended that, wherever possible, buildings be constructed using non-combustible materials as defined by the NBCC. Because limited amounts of combustible material are permitted by the NBCC in buildings of non-combustible construction, the requirements of Clause 5.7.1 are in addition to the NBCC requirements. Oui. Chaque fois que possible, les structures déménageables doivent être construites de matières incombustibles, selon la définition du CNBC. Étant donné que la quantité de matières combustibles permise par le CNBC dans les bâtiments de construction incombustible est limitée, l'article 5.7.1.1 s'ajoute aux exigences du CNBC.

Question #3: In Clause 6.8.1.1, is it the intent of this Clause that some combustible materials be permitted to be used in the construction of buildings? Est-ce que l'article 6.8.1.1 permet l'utilisation d'une certaine quantité de matières combustibles dans la construction des bâtiments ?

Answer #3: Yes. It is intended that, wherever possible, buildings be constructed using non-combustible materials as defined by the NBCC. Because limited amounts of combustible material are permitted by the NBCC in buildings of non-combustible construction, the requirements of Clause 6.8.1 are in addition to the NBCC requirements. Oui. Chaque fois que possible, les bâtiments doivent être construits de matières incombustibles, selon la définition du CNBC. Étant donné que la quantité de matières combustibles permise par le CNBC dans les bâtiments de construction incombustible est limitée, l'article 6.8.1 s'ajoute aux exigences du CNBC.

Posted July 28, 2010

The following interpretation regarding Clause 6.4.3 and Table 3 of CSA standard N291-08 (Requirements for Safety-Related Structures for CANDU Nuclear Power Plants, has been approved by the Technical Committee on Concrete Containment Structures for Nuclear Power Plants.

Question #1: Is Clause 6.4.3 equally applicable to Service and Abnormal/Environmental Category load combinations?

Answer #1: Yes, Clause 6.4.3 is used only to calculate the seismic forces (Q_{ed} and Q_{es}) applied to the load combinations in Table 3.

Question #2: In Table 3, is the 0.5 load factor for “L” that applies to Service Category combinations that include Q_{es} intended to reflect the 50% reduction for live load in clause 6.4.3?

Answer #2: No, Clause 6.4.3 is used to calculate seismic forces only.

Question #3: In Table 3, is the 1.0 load factor for “L” that applies to Abnormal/Environmental Category load combinations that include Q_{es} and Q_{ed} intended to reflect reductions in live load noted in Clause 6.4.3?

Answer #3: No, Clause 6.4.3 is used to calculate seismic forces only.

Question #4: Is the reduction in live load specified in Clause 6.4.3 applicable to both the computation of seismic loads and the “L” in Service and Abnormal/Environmental Category load combinations?

Answer #4: No, reduction in Clause 6.4.3 is used to calculate the seismic forces only, not live loads (L).

*Posted October 20, 2010
(Approved March 9, 2009)*

The following interpretation regarding Figure 11 (d) **AAMA/WDMA/CSA Standard 101/I.S.2/A/440-08**, NAFS North American Fenestration Standard/Specification for windows, doors, and skylights, has been approved by the Technical Committee.

Figure 11 (d) – test specimen mounting arrangement for TDD's.

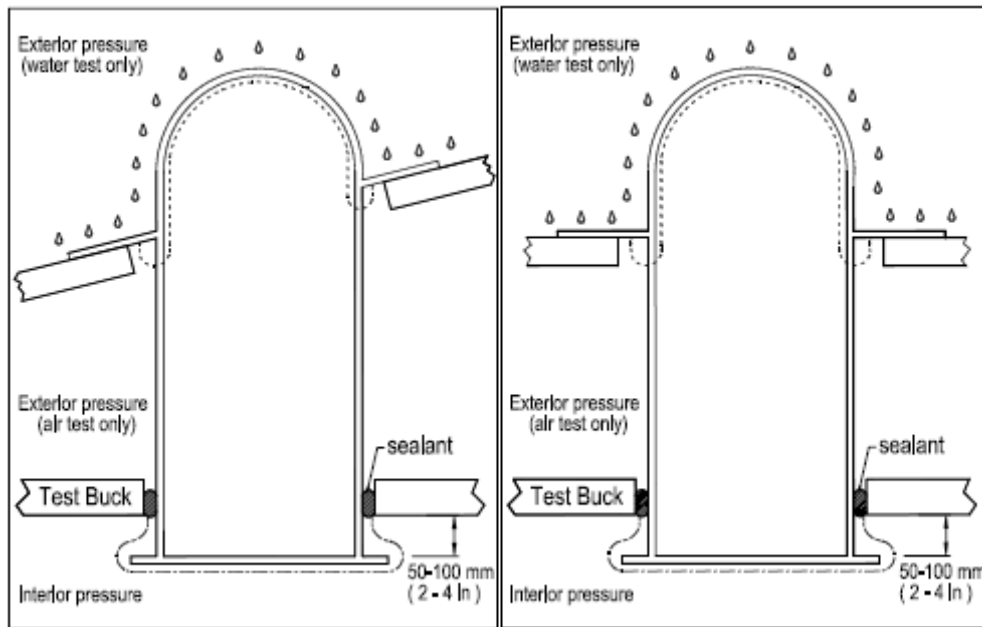
In this figure, there is a seal shown between a horizontal test buck at "ceiling" level and the outside of the light transmitting tube. In the air leakage testing mode described for this arrangement, it is apparent that the intent is to treat the "attic space" thus formed as unconditioned space with insulation at the ceiling so that all leakage to/from this unconditioned space and the outside space that enters the tube can be measured at the tube exit point (diffuser) in the "conditioned" space below the ceiling.

Some TDD manufacturers offer variants that are designed to be used only in commercial construction, where the tube is to be installed in conditioned space (insulation at the roof). NFRC procedures have been updated to cover this product variant, where they chose the term “Hybrid”

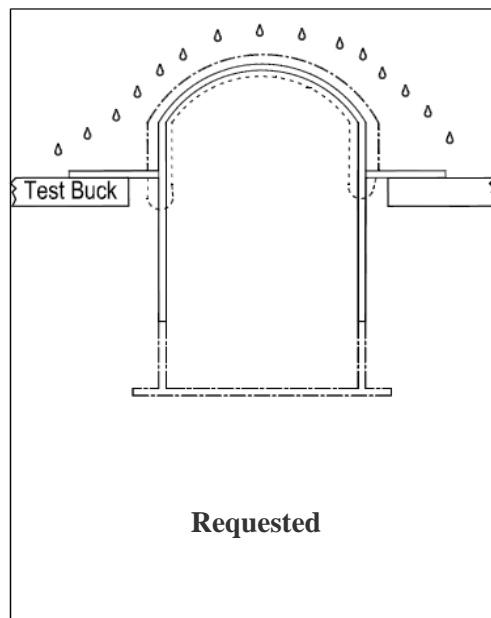
TDD, abbreviated as “HTDD”. The next revision of NAFS standard/specification will need to address this product variant because the current air leakage test procedure shown in Figure 11(d) is inappropriate when the product is not used with an insulated ceiling. This TI is to bridge the time gap until that revision is published in 2011.

Question: Shall it be permitted to treat a product designed and specified by the manufacturer to be used only where the tube will be installed in conditioned space, and is a minimum of 20” across, as a "Tubular Skylight", and test it according to the skylight testing provisions for air, water and structural performance?

Answer: Yes.



Currently prescribed in 101/I.S.2/A440-08



-----	Plane of Measured Air Leakage	Air leakage is measured at the exterior seal line of the assembly. Air leakage through the test fixture and the perimeter seal is excluded. The water spray is applied to the exterior of the assembly and its juncture with the test fixture. The plane of controlled water penetration is defined as the innermost plane of the test assembly. This does not include the interface between the rough opening and the frame.
△ △ △ △ △ △ △	Plane of Water Spray Application	
-----	Plane of Controlled Water Penetration	