

National Fire Code – 2019 Alberta Edition (NFC(AE)) Storage Tank System Inspections and Inventory Control

PURPOSE

This interpretation provides clarity for inspections of storage tank systems, as related to Part 4, and storage tank registration (inventory control), as related to Division C of the NFC(AE).

The interpretation applies to both accredited and unaccredited areas within the Province of Alberta.

DISCUSSION

As indicated in Bulletin 19-FCB-007, "Permitting and Inspections of Storage Tank Systems within the Province of Alberta" effective June 08, 2020, the delegated authority for storage tank systems in unaccredited areas of Alberta has been transferred from the Petroleum Tank Management Association of Alberta (PTMAA) to the Alberta Safety Codes Authority (ASCA), a division of the Safety Codes Council.

As in the past with PTMAA, there are specific requirements in the NFC(AE) which ASCA is now mandated to oversee in unaccredited areas. ASCA has been delegated the authority for storage tank system construction, upgrading, leak testing oversight, closure, removal, maintenance, operation standards and notification of leaks, spills, and contaminated soils. With the goal of reducing red tape and providing more efficient service delivery, the Safety Codes Council and Municipal Affairs are collaborating on an assessment of existing procedures and systems. This will occur between June 08, 2020 and March 1, 2021.

Accredited areas are designated the same mandate under their Quality Management Plan (QMP).

CODE REFERENCES

Article 4.1.6.4 states:

4.1.6.4. Notification

(See Note A-4.1.6.4.)

- 1) When a loss of *flammable liquid* or *combustible liquid* occurs from a spill, leak, or as indicated by any of the leak detection measures in Section 4.4., the *owner* shall ensure that
 - a) appropriate action is taken as required in Sentences 4.1.6.3.(2) and (3), and Sentence 4.4.1.3.(1), and
 - b) if the quantity of liquid spilled or leaked exceeds 50 L in aggregate or is sufficient to cause a sheen on nearby surface water,

Unless stated otherwise, all Code references in this STANDATA are to Division B of the National Fire Code-2019 Alberta Edition

Issue of this STANDATA is authorized by
the Provincial Fire Administrator

[original signed]
Tina Parker

The logo for the Province of Alberta, featuring the word "Alberta" in a stylized, cursive font with a small blue square at the end of the word.

- i) the fire department shall be notified immediately, and
 - ii) the *authority having jurisdiction* shall be notified in writing within 24 h
- 2) A person shall notify the *authority having jurisdiction* and the fire department if they have knowledge about a leak of *flammable liquid* or *combustible liquid* that
 - a) is based on analysis or other evidence of *flammable liquid* or *combustible liquid* in a water well, or
 - b) indicates the presence of free or dissolved *flammable liquid* or *combustible liquid* in soil, groundwater, surface water, sewer lines, utility lines, water supply lines, *basements*, crawl spaces or on the ground's surface.

Article 4.3.1.9 states:

4.3.1.9. Installation and Use

- 1) Unless otherwise specified in this Code, a *storage tank* shall be installed and used in conformance with the applicable installation and use provisions of the design document to which the *storage tank* was built as required by this Section.
- 2) Except for *storage tanks* being withdrawn from service in accordance with Subsections 4.3.15.* and 4.3.16., no person shall deliver or remove *flammable liquids* or *combustible liquids* to or from a *storage tank*, unless
 - a) the *storage tank* is registered in accordance with Article 2.2.5.2. of Division C, and
 - b) the registration certificate is displayed as required by Sentence 2.2.5.2.(5) of Division C.
- 3) The *owner* of a *storage tank* shall ensure that documentation is provided that indicates
 - a) the location of the *storage tank*,
 - b) the product to be stored in the *storage tank*,
 - c) the capacity of the *storage tank*,
 - d) the material from which the *storage tank* is constructed,
 - e) the type of corrosion protection, if any, applied to the *storage tank*, and
 - f) the records of any leak tests performed on the *storage tank*.
- 4) The *owner* shall make the documentation described in Sentence (3) available in conformance with Article 2.2.1.2. of Division C.

*Note: Due to a typographical error, Sentence 4.3.1.9.(2) should read, "...in accordance with Subsections 4.3.16. and 4.3.17., ...".

Section 4.4. Leak Detection of Storage Tanks and Piping Systems states:

4.4.1.2. Frequency and Methods of Leak Detection Testing and Monitoring

4.4.2. Leak Detection Testing and Monitoring Methods

4.4.3. Leak Detection Testing of Storage Tanks, Piping Systems and Sumps

4.4.4. Leak Detection Monitoring of Storage Tanks and Piping Systems

4.4.1.4. Retention of Records

- 1) Records of the tests referred to in this Section shall be retained in conformance with Article 2.2.1.2. of Division C.

Division C, Section 2.2. Administration states:

2.2.1. General

2.2.1.1. Responsibility

- 1) Unless otherwise specified, the *owner* or the *owner's* authorized agent shall be responsible for carrying out the provisions of this Code.

2.2.1.2. Records

- 1) Where this Code requires that audits be performed, plans be provided, or that tests, inspections, maintenance or operational procedures be performed on a fire safety system, records shall be made and the original or a copy shall be retained at the premises for examination by the *authority having jurisdiction*.
- 2) Records of fire evacuations and fire safety drills shall be retained at the premises for examination by the *authority having jurisdiction*.
- 3) The initial verification or test reports for each system shall be retained throughout the life of the systems.
- 4) Records of tests, inspections, maintenance or operational procedures undertaken after the initial tests referred to in Sentence (3) shall be retained so that at least the current and the immediately preceding records are available.
- 5) Notwithstanding the conditions stated in Sentence (4), no record shall be destroyed within two years of having been prepared.

Division C, Subsection 2.2.5. Storage Tank Registration states:

2.2.5.1. Application

- 1) This Article does not apply to
 - a) an aboveground *storage tank* with a capacity of less than 2 500 L,
 - b) a *storage tank* in an industrial *process plant*, a *refinery* or a *distillery*,
 - c) a flow-through *storage tank* used as part of the process of an industrial plant, *refinery* or *distillery*,
 - d) aboveground *storage tanks* that are used at a temporary location for less than 1 year, or
 - e) a *pressure vessel* that is used as a *storage tank* and is registered in accordance with the boiler and *pressure vessel* regulations made pursuant to the Safety Codes Act.

2.2.5.2. General

- 1) No person shall use a *storage tank* unless the tank is registered under this Article.
- 2) An application for registration shall be submitted to the *Provincial Fire Administrator*.
- 3) Where a *storage tank* is divided into two or more compartments, each compartment is considered a separate part of the *storage tank system* and shall be registered separately.
- 4) On receipt of a completed application, the *Provincial Fire Administrator* shall register the *storage tank* and issue a registration certificate provided the *storage tank system* is in compliance with all applicable requirements of this Code.
- 5) The *owner* of the *storage tank* shall ensure that the registration certificate is displayed on the premises where the *storage tank* is located.
- 6) A registration certificate
 - a) expires on the anniversary of the date of issue and is renewable for an additional year on application to the *Provincial Fire Administrator*,
 - b) is valid only while the *storage tank* remains at the location described in the certificate, and
 - c) is not transferable.
- 7) The *Provincial Fire Administrator* may cancel the registration of a *storage tank* under this

Article if

- a) the *Provincial Fire Administrator* has reasonable grounds to suspect that the *storage tank* is leaking,
 - b) the *storage tank* is withdrawn from service as described in Subsections 4.3.15* and 4.3.16.,
 - c) the *storage tank* has not been installed in accordance with the Code, or
 - d) the information given on an application for registration is found to be incorrect.
- 8) When the registration of a *storage tank* is cancelled or the *storage tank* is permanently taken out of service or removed, the *owner* shall return the registration certificate to the *Provincial Fire Administrator* within 30 days.
- 9) The *owner* of a *storage tank* shall forthwith notify the *Provincial Fire Administrator* if a registration certificate is lost, stolen or destroyed.
- 10) Upon receiving notification from an *owner* that a registration certificate has been lost, stolen or destroyed, the *Provincial Fire Administrator* shall issue a replacement.
- 11) Where a registered *storage tank* is replaced or materially modified, the *owner* shall apply for a new registration certificate in accordance with Sentence (2) within 30 days after substantial completion of the modifications, alterations, or replacement.
- 12) The *owner* of a *storage tank* shall notify the *Provincial Fire Administrator*, in writing, of the sale, lease or other transfer of ownership or any relocation of a *storage tank*.
- 13) Upon receipt of satisfactory evidence of the sale, lease, or other transfer of ownership or any relocation of a *storage tank*, as described in Sentence (12), the *Provincial Fire Administrator* may issue a new registration certificate that reflects the new ownership or the new location.

*Note: Due to a typographical error, Division C, Clause 2.2.5.2.(7)(b) should read, “the *storage tank* is withdrawn from service as described in Subsections 4.3.16. and 4.3.17.”.

APPLICATION

This interpretation applies to all storage tank systems identified by the NFC(AE) in both accredited and unaccredited areas.

For information in unaccredited areas, please contact ASCA:
1-888-413-0099 or sccinfo@safetycodes.ab.ca

For information in accredited areas, please contact your local Authority Having Jurisdiction (AHJ) (fire department, fire prevention branch).

INTERPRETATION

Effective June 08, 2020, all new permits and subsequent inspections for storage tank systems in unaccredited areas are the responsibility of ASCA. Permits issued prior to June 08, 2020 are the responsibility of the PTMAA and those permits shall be completed, in compliance with the NFC(AE) on or before March 01, 2021.

Installation and Use

Before an owner installs a storage tank or storage tank system, they are required to contact the AHJ for accredited areas or ASCA in unaccredited areas to ensure NFC(AE) and any permit(s) requirements are met.

Notification of Spill or Leak

As per Article 4.1.6.4. Notification, owners must report the loss of flammable and combustible liquids through a spill, leak or indications by any leak detection measures to the local fire department and if the AHJ is not the local fire department, the report must be filed with ASCA.

It is important to note that other regulatory bodies may require the owner to report a spill or release.

Section 4.4. Leak Detection of Storage Tanks and Piping Systems

Section 4.4. speaks to the requirements for various tests and certifications throughout the lifecycle of a storage tank and the system associated with the storage tank(s). Owners are to continue with the required inspections and tests. As identified in sentence 4.4.1.2.(1), and Division C, Subsection 2.2.1.2., records of tests, inspections, verifications, maintenance and operational procedures are to be retained on site and submitted to the AHJ or ASCA upon request. It is important to note there is testing and monitoring required annually, every two years, every five years and every ten years by qualified persons. These requirements are outlined in Tables 4.4.1.2.-A, 4.4.1.2.-B, 4.4.1.2.-C, 4.4.1.2.-D, and 4.4.1.2.-E and remain in effect. The documents supporting these inspections are to be retained on site and are also provided to the AHJ or ASCA by the owner upon request.

Storage Tank Inventory Control

Effective August 31, 2020, the requirement in Division C, Subsection 2.2.5. Storage Tank Registration for owners to register their storage tank(s) with PTMAA on an annual basis will **no longer be in effect**. Owners are to contact their local AHJ or ASCA to report their verification of installation documentation as prescribed for that municipality.

The AHJ or ASCA will advise the owner of the enrollment process regarding the inventory control requirements for maintaining the storage tank system certification for their area. This may be in the form of, but not limited to, an annual Business Licence (renewal), annual permit (renewal) or an inspection process.

Code references will be amended in the next edition of the NFC(AE).

This INTERPRETATION is applicable throughout the province of Alberta.

Reference documents:

Notice NFC(AE) and NBC(AE) available [here](#)

[19-FCB-007](#) Permitting and Inspections of Storage Tank Systems within the Province of Alberta