



Aboveground Flammable & Combustible Liquid Storage Tanks (AST) Information Required on Submitted Drawings

Drawings – Three (3) sets of drawings stamped and signed by an engineer licensed to practice in the Province of Alberta – National Fire Code Alberta Edition 2019 (NFC-AE) for all tanks over 230 litres; inclusive of all piping and transfers systems. Unless otherwise specified all references are to the NFC-AE 2019.

The following drawings shall be submitted:

- Overall Site Plan – showing the site relative to adjacent streets and buildings
- Site Finished Grades – indicating a spill is designed to stay on the property
- Mechanical Site Plan – showing underground drainage (catch basins, piping, oil/water separator)
- Electrical Site Plan – emergency shutdown, horns, strobes, communication devices
- Piping System – piping layout, stumps and associated details
- Tank Sections & Details – distances, tank specifications, collision protection, venting, spill and secondary containment, slab support details

General Information to be included on the drawings or attached documents

1. List of applicable codes and standards, product and tank size.
2. Dimensions, distances to tanks, buildings, property lines, dispensers.
3. Site classification – card lock, self-serve, full serve.
4. Oil/water separator is required at new and substantially renovated sites where the storm water management system is excavated or upgraded and at all dry wells.
5. Emergency shutoff, communication devices.

Detail Check Sheet to NFC-AE 2019 Standard:

- Drawings to have an engineer signed stamp
- Distance to property lines, buildings, propane tanks, adjacent tanks
- Standard the tank is constructed to
- Collision protection
- Venting including emergency vents
- Piping and transfer systems, schematic drawings, listing the standard piping is designed to meet with, c/w with identification as per CPPI standards

- Spill control at dispensing area – tank and vehicle
- Fire Department Access
- Secondary containment/dike details (if applicable)
- Tank support detail for the tank (see special note below)
- Location of emergency shut off and communications device
- Identify the type of site use (card lock, self-serve)
- Valve details c/w identification as per CPPI standards
- Dispenser, hose and dispenser sump details, ULC standards, shear detail, dispenser distance to tanks, buildings, property lines etc.

Special Note 1: Tank Support Detail – NFC-AE (2019) – Subsection 4.3.3.

The acceptable support for an aboveground tank is designed (by an engineer) to carry the load of the tank when full.

Exception: A ground or gravel support base is acceptable in a temporary situation

Temporary to the code is less than one year. NFC-AE 2019 Div “C” 2.2.5.1. This is to be submitted with a letter outlining the install date and specifying the date the tank is to be removed from the site.

**Special Note 2: Spill Control and Drainage Systems - NFC-AE (2019) –
Subsection 4.1.6,
City of Calgary Drainage Bylaw 37M 2005**

Within the City of Calgary jurisdictional boundaries;

An Interceptor (oil and water or oil and grit separator) may be required at any site where a flammable and combustible storage tank is present. Where the Interceptor is connected to the underground storm water management system it shall be located at the last catch basin prior to leaving the site. Contact Infrastructure Planning, Water Resources for details on this requirement. Maintenance and proper removal and disposal of contained oil/grit shall be included in the Fire Safety Plan for the site.

The installation, alteration and maintenance of any flammable and combustible liquid storage tank system shall comply with the requirements as outlined in the NFC-AE 2019 and the National Building Code, Alberta Edition, and any referenced documents within these codes.

Submit drawings to:
Calgary Fire Department
Fire Inspections &
Investigations

Technical Services
4144 – 11th Street SE
Calgary AB T2G 3H2

Email: Tanks@Calgary.ca

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