

1 Purpose	To outline the general requirements for safely storing and handling propane.
2 Application	Applies to all NTPC employees and contractors required to store or handle propane.
3 Definitions	Propane A colorless, flammable hydrocarbon gas used as a fuel.
4 References	<ul style="list-style-type: none"> • Fire Prevention Act • Propane Cylinder Storage Regulations • SWP 2.10: Forklift Operations • Propane Safety Data Sheet
5 Equipment	<ul style="list-style-type: none"> • Nil
6 PPE	<ul style="list-style-type: none"> • Work gloves
7 Training	<ul style="list-style-type: none"> • WHMIS • TDG
8 Work Practice	<p>Introduction</p> <p>Propane has a variety of uses including heating, cooking, and powering vehicles. Because propane is highly flammable, heavier than air, invisible, and stored under pressure it is of particular concern when used on a worksite. Though originally scentless, propane manufacturers add a distinct odour to propane to enable people to detect releases. The following guidelines will help prevent incidents caused by improper handling and storage of portable propane tanks.</p> <p>Handling</p> <ul style="list-style-type: none"> • Wear gloves and long sleeves when handling propane tanks. • Propane is highly flammable. Eliminate heat and ignition sources (e.g., smoking, sparks, open flames, hot surfaces, etc.) when handling propane tanks. • Only use propane tanks in well ventilated areas. • Handle propane tanks in an upright position. • Avoid dropping or bumping tanks and do not roll them on their sides. • Do not lift propane tanks by the valve – use the handles. • Propane gels (becomes liquid) at -40°C, at which point it will

not flow. The propane tank may be moved briefly to a warm area for warming, as long as it is continually monitored. 5-10 minutes is normally sufficient to return the propane to a gaseous state.

- Repairs to propane tanks, heaters, hoses, and other components shall be completed by a licensed service person.
- Refer to *SWP 2.10: Forklift Operation* for handling and changing propane tanks for use on a forklift.

Inspection

- Inspect propane tanks, hoses, and equipment before use to ensure there are no existing or potential leaks.
 - Leaking propane gas can ignite and/or explode.
 - Liquid propane can cause severe frostbite if it contacts skin.
- Inspect the tank’s protective collar and foot ring for broken welds and/or corrosion.
- Tanks with dents or gouges shall not be used.
- Inspect hoses prior to use. Hoses with cracks, abrasions, or other damage shall not be used.
- Ensure equipment (i.e., heater, torch, barbecue) is in good repair and approved for use with propane.
- Propane tanks up to 60 lbs. are equipped with a safety valve to prevent leaks and accidental release. Propane will not flow unless properly connected to a regulator.
- Ensure the regulator is firmly installed and is not cross threaded.

Accidental Release

- If a propane leak is detected or suspected:
 - Assess hazards;
 - If safe to do so shut off the source of propane; and
 - Clear the area.
- If there is an accumulation of propane, ensure no sources of ignition are present and ventilate the area.

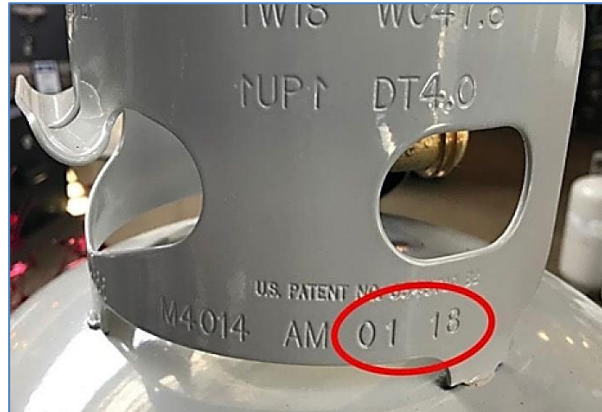
Tank Expiry and Recertification

- Propane tank collars are stamped with the last certification date (month/year format) (see Figure 1).
- Propane tanks in Canada expire ten years after the last

certification date.

- Ensure the tank is not expired before using.
- Expired tanks shall be taken to a licensed service person for inspection and recertification or disposal.

Figure 1: Propane Tank Certification Date Stamp



Storage

- Store propane tanks outdoors in a cool, well ventilated area out of direct sunlight and away from heat and ignition sources.
- Do not store propane tanks indoors or in enclosed, heated, or inhabited spaces due to the potential for leaks.
- Store propane tanks on flat surfaces that do not collect water (e.g., on pallets).
- Store propane tanks in an upright position with the regulator removed, the valve closed, and a plug or cap used to seal the valve opening.
- Do not store tanks in high-traffic areas (e.g., doorways, stairways, exits).
- Do not store propane tanks close to flammable or combustible materials.
- Locate fire extinguishers within easy access of propane storage.
- Store propane tanks with the storage relief valve in direct contact with the vapor space in the container.

9 Documentation

- Nil

Development

Name	Position	Date
Prepared by: J. Clark	Health, Safety & Environment Policy Coordinator	Jan. 31, 2021
Reviewed by: N. McBride	Hydro Plant Operator	Feb. 01, 2021
Approved by: E. Smith	Director Health, Safety & Environment	Feb. 01, 2021

Revision History

#	Revised Sections	Description of Revisions	Revised by (name, position)	Approved by (name, position)	Issue Date
01					
02					
03					
04					
05					
06					