



P·T·I 600-03

Bulk Plant Operations



Course Overview

This course has been designed for individuals who work in a propane bulk plant including drivers, service technicians and yard personnel. This course provides instruction on the key equipment at the propane bulk plant and how to enhance safety by conducting periodic inspections of the equipment and plant. Taken in conjunction with other P•T•I training courses such as our *300-01 – Bulk Truck Propane Delivery*, this course focuses on the equipment used to bring propane into bulk storage and subsequently fill bulk delivery vehicles for transport to customer sites. Students who complete this course will have the knowledge and ability to conduct periodic inspections of the bulk plant.

Key Learning Objectives

The student will gain knowledge in the following key areas:

- **Product Knowledge**
The properties and characteristics of propane; personal protective equipment required; preventative measures and first aid tips specific to propane; managing sources of ignition, extinguishing fires; and the effects of carbon monoxide.
- **WHMIS & TDG**
The requirements for propane under the WHMIS system; TDG obligations; and the six gases categorized as LPG (UN1075).
- **LPG Containers, Storage and Transportation**
A detailed review of the containers used to store and transport propane; the various safety features and valves used in propane containers; and the various vehicles used to transport propane by both truck and rail.
- **The Propane Bulk Plant**
Storage tanks and their key components; liquid propane pumps and compressors, storage tank loading systems; tank truck loading systems; electrical system components; and lighting and signage requirements.



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- **Bulk Plant Operations**
Fencing requirements, safety systems; how to gauge tank volumes; how to start the bulk plant; the process of transferring propane between transport vehicles and storage; the concepts of container purging; and how to conduct daily, weekly, monthly and annual plant inspections.
- **Storage of Non-Permanent Containers**
The requirements of cylinder storage clearances; when posts and guardrails are required; and managing combustion materials and sources of ignition.
- **Emergency Response & Preparedness**
The elements of Emergency Response policies and plans and how they relate to site-specific emergency response planning for the bulk plant.

Regulatory References

This course has been designed to satisfy regulatory requirements of the most current CAN/CSA-B149.2 Propane Storage and Handling Code, Transportation of Dangerous Goods regulations and WHMIS regulations. While this course has been written to satisfy national requirements, the P•T•I certified Trainer will also ensure that the student is aware of any additional requirements as outlined by the authorities in their jurisdiction.

This course addresses national and partial provincial regulatory requirements including *PPO-1* ROT requirements in Ontario; *Class B* ROT requirements in Nova Scotia; *PPO-1* ROT requirements in New Brunswick; *Bulk Plant Operator 2* ROT requirements in Prince Edward Island and *Bulk Plant Operator* ROT requirements in Newfoundland & Labrador.

Certification Requirements

The student must successfully complete both a written and practical hands-on exam provided by a P•T•I certified Trainer. A temporary Record of Training, valid for ninety days, will be issued to the student by the P•T•I certified Trainer. The Propane Training Institute will follow up by issuing the student a wall certificate and a wallet card certifying successful completion of the course, valid for three years from the date of training.

Course Duration and Prerequisites

It will take up to two full days for the student to successfully complete the classroom instruction, follow-up practical task demonstrations, and both the written and practical hands-on exam. Drivers who will be taking this course should have already successfully completed *P•T•I 300-01 – Bulk Truck Propane Delivery* course. Yard personnel who will be filling containers should have successfully completed *P•T•I 100-01 – Propane Pump Attendant* or *100-08 – Cylinder Filling* course.

The cost of classroom instruction is determined by the Trainer and is dependent on where the training will be held and for how many students.



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