Propane Plant Operator 3
Record of Training Curriculum Document

Introduction:

This TSSA document defines the required training curriculum content for PPO-3 Record of Training programs under Ontario Regulation 215/01(Fuel Industry Certificates). Ontario Training Providers who wish to have their PPO-3 training programs accredited by TSSA must submit training programs that meet with the requirements of this curriculum.

There is no requirement to follow the order of this curriculum unless otherwise noted, provided all of the content and objectives are met.

Ontario Regulation 215/01

PPO-3 certificate

36. A person may fill containers, including vehicle tanks, and operate propane transfer equipment in a filling plant or container refill centre if the person is the holder of a PPO-3 certificate or is the holder of a record of training issued by an accredited training provider approved by the director that indicates the person has taken training acceptable to the director. O. Reg. 215/01, s. 36; O. Reg. 253/08, s. 21.

NOTE:

The PPO-3 ROT Training Program may be divided into two separate programs if desired: PPO-3A (Auto Fill Only) and PPO-3C (Cylinder Fill Only).

The Accredited Training Provider and the trainee must understand, prior to establishing the training contract, that a **PPO-3A only certifies the ROT card holder to operate a propane auto dispenser** and that a **PPO-3C only certifies the ROT card holder to operate propane cylinder filling equipmen**t.

The training provider must indicate on all ROT cards issued whether the program met the requirements of the complete PPO-3, the PPO-3A or the PPO-3C.

Theory testing may be done by module or at the completion of the course.

Estimated minimum total number of hours for program delivery: 6.5 hours.

MODULE 1
Estimated hours: .5
Module Title: Propane; Properties of the Fuel and Related Hazards

MODULE – 01	ENABLING OBJECTIVES *The student will be able to:*	THEORY | CONTENT
01.01	Identify the properties of propane as a vapour and as a liquid as well as the hazards associated with the fuel.	Identify the properties of propane as a liquid and as a vapour in terms of: · chemical composition (MSDS Information) · calorific value · boiling and freezing points · relative density · physical and identifiable characteristics of both liquid and vapour propane · uses in industry, home heating and transportation for both liquid and vapour propane · expansion between the liquid and vapour states · working pressures for appliances Identify the hazardous potential of propane as a liquid and as a vapour · frostbite and blinding potential · required Personal Protective Equipment for working with propane · first aid measures · Sources of ignition and extinguishing fires · carbon monoxide · range of flammability · explosive potential · provide examples of propane related incidents or accidents
01.02	**THEORY TESTING**	**Candidates shall perform a written theory test with core elements of each learning objective represented in the test.** **The testing may be separated into modules**

MODULE 2

Estimated hours: 1
Module Title: Legislation and Codes

MODULE – 02	ENABLING OBJECTIVES *The student will be able to:*	THEORY | CONTENT
02.01	Identify the applicable sections of the TSS Act.	The TSS Act · Identify the role of TSSA in the Fuels Industry and its jurisdictional authority as per the Act
02.02	Identify the applicable requirements of Ontario Regulation 215/01.	Identify the scope of the PP0-1 Certificate as per Ontario Regulation 215/01.
02.03	Identify the applicable requirements of Ontario Regulation 211/01.	· identify requirement for approval · identify the requirements for regulated activities involving propane · identify the duties of an employer · identify the requirements placed upon an ROT holder in the case of an accident or occurrence · identify the requirements placed upon an ROT holder for immediate and non-immediate hazards · identify requirements for propane vehicle operation · identify requirements for propane filling plants and refill centres · identify requirements for propane tank trucks · identify requirements for propane tank truck and facility inspection
02.04	Identify the applicable requirements of the CSA B149.2.	· identify the applicable requirements of the B149.2 Code for Container Storage and Container Filling including all aspects of Container Filling from Bulk Trucks · identify the applicable requirements of the B149.2 Code for Filling Plants and Refill Centres with regard to: “Tank Systems, filling plants and refill centres” · identify the applicable requirements of the B149.2 Code for Filling Plants and Refill Centres with regard to: Tank trucks, tank trailers and cargo liners · identify the applicable requirements of the B149.2 Code for Filling Plants and Refill Centres with regard to Operation, Maintenance and Personnel Training; Operating Procedures, Maintenance Procedures and Documentation procedures · identify the applicable requirements of the B149.2 Code for tank trucks · identify the applicable requirements of the

MODULE – 02	ENABLING OBJECTIVES *The student will be able to:*	THEORY | CONTENT
		B149.2 Code for equipment and container clearances as well as protection for equipment and containers · identify signage requirements for Auto Dispensers, Filling Plants and Refill centres
02.05	Identify the applicable requirements of WHMIS and TDG with regard to propane. Identify the safety and first aid requirements related to working with propane.	· identify WHMIS and MSDS information regarding propane gas · identify the TDG requirements for the transportation of propane cylinders and propane tank trucks · identify preventative safety measures including Personal Protective Equipment; accident prevention, sources of ignition, leak detection and emergency procedures · identify first aid procedures for propane related injuries, freeze burns, inhalation exposure...etc.
02.06	**THEORY TESTING**	**Candidates shall perform a written theory test with core elements of each learning objective represented in the test.** **The testing may be separated into modules**

MODULE 3

Estimated hours: 2.5
Module Title: Propane Pump Attendant (Vehicle)

MODULE – 03	ENABLING OBJECTIVES *The student will be able to:*	THEORY | CONTENT
03.01	Identify vehicle filling station equipment.	Identify the follow standard equipment for propane vehicle filling stations: · propane vehicle fill tanks and tank types · automotive dispensers · auto filling nozzle · required signage
03.02	Identify tank components for auto dispenser/refill stations.	Identify and explain the function of the following components of a dispenser/refill station tank: · tank identification CRN (distinguish between **auto tank** CRN numbers and **stationary tank** CRN numbers) · relief valve · fill valve · ISC valve · float gauge · fixed liquid level gauge(spit valve)
03.03	Identify piping and valve train components for auto dispenser/refill stations.	Identify and explain the function of the following components of a dispenser/refill station piping system: · propane pump and strainer · liquid bypass valve · breakaway coupling · hose, hose end valve · meter
03.04	Identify the component parts of propane auto dispensers and vehicle mounted tanks.	**Identify and explain the function of the following components of a propane auto dispenser** · dispenser Island and Casing · filling nozzle · break-away valve **Vehicle mounted propane tanks** · identify the difference between dispenser fill tanks and remote fill tanks · identify the CSA B51 standard for vehicle mounted propane tanks · identify the common positions for tanks on vehicles **Identify and explain the function of the following components of vehicle mounted tanks:** · fill valve/automatic stop fill valve · fixed liquid level gauge(spit valve) · float valve · pressure relief valve · vapour service valve · tank liquid service valve **Identify and explain Liquid injection systems and contrast them with standard vehicle tank systems.**
03.05	**THEORY TESTING**	**Candidates shall perform a written theory test with core elements of each learning objective represented in the test.** **The testing may be separated into modules**

MODULE – 03	ENABLING OBJECTIVES *The student will be able to:*	THEORY | CONTENT
	PRACTICAL	
03.06	Identify what would constitute an unacceptable condition for a tank.	Candidates shall be tested on the proper inspection of tanks and must be able to identify unacceptable conditions
03.07	Demonstrate the process and procedures for tank filling by volume.	Candidates shall be tested on the demonstration of proper process and procedures for tank filling by volume. Candidates shall be tested on emergency shut down procedures during filling operations.

MODULE 4

Estimated hours: 2.5
Module Title: Propane Cylinder Filling

MODULE – 04	ENABLING OBJECTIVES *The student will be able to:*	THEORY | CONTENT
04.01	Identify various types of cylinders, their components, markings etc.	· identify commonly used cylinder and tank types and sizes · identify specific differences between cylinders and tanks; relief valves and markings · identify and describe the construction and component parts of cylinders and tanks including valve types, relief valves, fixed liquid level gauge, dip tube · identify the required Transport Canada date code and markings on cylinders and the requirement for 10 year recertification · identify the requirements for cylinder inspection
04.02	Identify cylinder filling equipment.	Using pictures, diagrams and demonstration, identify the following components of a cylinder filling station and explain their purpose: · ISC valve(with door interlock) · fusible link · pump switch · explosion proof light · scale; scale beam, scale platform, weight · purge cylinder, purge gauge · gas hoses · fire extinguisher · required signage
04.03	Demonstrate an understanding of cylinder filling by weight.	Identify and explain the requirements from CSA B149.2; Section 6; Table 'Maximum Permitted Filling Density of a Cylinder by Weight' · perform theory exercises to support this learning objective · identify proper cylinder purging procedures from the CSA B149.2 Code
PRACTICAL		
04.04	Identify what would constitute an unacceptable condition for a cylinder. **Practical testing**	Candidates shall be tested on the proper inspection of cylinders and must be able to identify unacceptable conditions.
04.05	Demonstrate the process and procedures for cylinder filling by weight and cylinder purging. **Practical testing**	Demonstrate the procedures for cylinder filling by weight emergency shut down procedures. Demonstrate the procedures for purging cylinders Candidates shall be tested on: · the demonstration of proper process and procedures for cylinder filling by weight. · the proper process and procedures for purging cylinders · emergency shut down procedures during filling operations
04.06	**THEORY TESTING**	Candidates shall perform a written theory test with core elements of each learning objective represented in the test. The testing may be separated into modules