Construction Heat
CH-02 *(up to 400,000 BTU)*
Record of Training Curriculum Document

Introduction:

This TSSA document defines the required training curriculum content for CH-02 Record of Training programs under Ontario Regulation 215/01(Fuel Industry Certificates). Ontario Training Providers who wish to have their CH-02 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

CH-02 certificate
48. A person who is the holder of a CH-02 certificate or the holder of a record of training for the purpose may perform the functions of a CH-01 on a construction heater or torch that has an input of 400,000 Btuh or less. O. Reg. 215/01, s. 48; O. Reg. 253/08, s. 29.

CH-01 certificate
47. A person who is the holder of a CH-01 certificate or the holder of a record of training for the purpose may activate a propane, natural gas or oil-fired construction heater or torch with an input of any Btuh, and connect it to or disconnect it from piping, tubing, a refuelling appliance, a container or a natural gas meter. O. Reg. 215/01, s. 47.

NOTE:

The CH-02 ROT Training Program may be divided into two separate programs if desired: CH-02-T (Torch only) and CH-02-C (Construction Heater only).

The Accredited Training Provider and the trainee must understand, prior to establishing the training contract, that a CH-02-T only certifies the ROT car holder to operate propane torches, and that the CH-02-C only certifies the ROT card holder to operate construction heaters.

The training provider must indicate, on all ROT cards issued, whether the program met the requirements of the complete CH-02, the CH-02-T or the CH-02-C.

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

Estimated minimum total number of hours for program delivery: 6 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: .5
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 CH-02 Certificate as per Ontario Regulation 215/01.
02.03	Identify the applicable requirements of Ontario Regulation 212/01.	· identify requirement for compliance · identify requirement for approval · identify the duties of an employer · identify the reporting requirements for an accident or occurrence · identify the requirements for immediate and non-immediate hazards · identify the duty to maintain equipment in a safe operating condition
02.04	Identify the applicable requirements of Ontario Regulation 211/01.	· identify the requirements for regulated activities involving propane · identify the duties of an employer · identify the certificate required for the handling of propane and the certificates required for various activities involving propane
02.05	**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 3

Estimated hours: .5
Module Title: Storage and Handling of Propane Cylinders

MODULE – 03	ENABLING OBJECTIVES *The student will be able to:*	THEORY | CONTENT
03.01	Identify various types of cylinders, their components, markings etc.	· identify various cylinder types and sizes used for construction purposes · identify and describe the construction and component parts of cylinders 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
03.02	Identify the requirements for safe handling of propane cylinders.	Identify acceptable and unacceptable methods of transporting and moving cylinders
03.03	Identify the B149.2 code items for the storage of cylinders.	Identify the Code requirements for the location of cylinders on construction sites Including: maximum number of cylinders in a manifold, clearances, storage of empty and full cylinders when not in use
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 4

Estimated hours: 1.5
Module Title: Appliance and Cylinder Connections

MODULE – 04	ENABLING OBJECTIVES *The student will be able to:*	THEORY | CONTENT
04.01	Demonstrate procedures for connecting cylinders and appliances.	· identify a variety of common, approved fittings, regulators, hoses and pig tails used to connect propane cylinders in the construction industry · demonstrate connection methods for manifolding cylinders, connecting to construction heaters, connecting to torches · demonstrate leak testing methods
04.02	**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 5

Estimated hours: 2-3
Module Title: Appliance Types and Safe Operation

MODULE – 05	ENABLING OBJECTIVES *The student will be able to:*	THEORY | CONTENT
05.01	Identify and select appropriate construction heater.	· identify various types of construction heaters under 400 000 BTU: Direct, Indirect, Radiant, Portable and the application types for each · identify key components of various construction heater types: gas valves, flame safeguards, igniters, controls · review manufacturer's instructions for lighting and operating various construction heaters · identify the requirements for complete combustion · identify the requirements for combustion air, venting and associated hazards
05.02	Identify the relevant sections of the B149.1 Natural Gas and Propane Installation Code as they pertain to propane fired construction heaters under 400,000 BTU	Identify CSA B149.1 Section 7 Code Requirements for Operating Construction Heaters under the following criterion: · installation · combustion air supply (as per manufacturer instructions) · duties of users of construction heaters
05.03	Identify and select appropriate propane fired torches.	· identify typical propane fired torches; one each of the flame safeguard type and that without the flame safeguard. · identify the differences between the two types · identify the appearance and operational characteristics of a thermocouple flame safeguard system · identify the code requirements for operating a the flame safeguard equipped torch vs a torch not equipped with the flame safeguard
05.04	**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**
Practical		
05.05	Light construction heaters and safely operate according to manufacturer's instructions.	Candidates shall be tested on safe lighting, shutting down and operation of construction heaters, identifying characteristics of complete and incomplete combustion. · demonstrate burner adjustment and procedures to follow when problems are detected
05.06	Safely light and operate construction torch according to manufacturer's instructions	Candidates shall be tested on safe lighting, shutting down and operation of construction heaters, identifying characteristics of complete and incomplete combustion. · demonstrate burner adjustment and procedures to follow when problems are detected