

**Thermal Environmental Comfort Association (TECA)**

BC Toll Free Phone: 1-888-577-3818 Fax: 1-888-577-3137 E-mail: training@teca.ca

Mail: PO Box 73105, Evergreen RO, Surrey, BC, V3R 0J2 Website: www.teca.ca

TRANSITION PERIOD "CHALLENGER"
CERTIFICATE OF QUALIFICATION PRE-APPLICATION
Certified Geothermal Technician

A. Applicant's Information

ITA Apprentice Number (TWID):					
Legal Last Name:		Legal First Name:		Legal Middle Name(s):	
Date of Birth (YYYY/MM/DD):		Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female			
Suite Number:		Mailing Address:			
City:		Province: B.C.	Postal Code:		Email:
Daytime Telephone Number: ()		Home Telephone Number: ()		Fax Number: ()	

B. Employer/Sponsor to Complete

Sponsor Registration Number (if registered):		Legal Name of Business:			
Suite Number:		Mailing Address:			
City:		Province: B.C.	Postal Code:		Email:
Daytime Telephone Number: ()		Fax Number: ()		Contact Person:	

C. Work Experience & Training Details

Current Accreditation in Canadian GeoExchange Coalition's:	
<input type="checkbox"/> "Residential Systems Designers Course"	# _____
<input type="checkbox"/> "Systems Installers Course"	# _____

Record of Employment - Please indicate which of the following documents is attached:	
<input type="checkbox"/> T4 (Self Employed)	<input type="checkbox"/> Employer Letter of Attestation
<input type="checkbox"/> Completed 6000 work based hours (5 years)	

Please provide a letter outlining your work experience AND complete form on Page 2 outlining percentage of work performed in each area. If self-employed 2 letters of attestation from industry are required (i.e. supplier, industry association, general contractor etc).

Applicant's Signature:		Date (YYYY/MM/DD):	
Sponsor/Employer's Signature:		Date: (YYYY/MM/DD):	
OFFICE USE ONLY: <input type="checkbox"/> CGC Designer <input type="checkbox"/> CGC Installer <input type="checkbox"/> ROE			
<input type="checkbox"/> Letter <input type="checkbox"/>			


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Please indicate with check if work is performed in each area. Submit this form with Page 1.

LEVEL 1 - COMMON CORE

Orientation to Residential Heating Industry Including: knows work performed by a heating technician; types of heating systems; understands heating industry structure	<input type="checkbox"/>
Residential Heating Career Access Skills Including: Uses trade math; use Work Safe practices; use and care of industry tools (hand and power); use of shop equipment	<input type="checkbox"/>
Plan Reading Including: read and interprets plan sections; sizes plan elements - windows and doors; identifies key structural elements	<input type="checkbox"/>
Basic Drafting Including: produces: orthographic and isometric drawings; flow and assemble drawings, duct layout schematics	<input type="checkbox"/>
Construction Basics Including: Understands construction types, framing principles, insulation values and impacts, air barriers	<input type="checkbox"/>
Fundamentals of Heat Loss and Gain Including: Uses R & U values in heat loss/gain calculations; performs heat loss/gain calculations; applies winter/summer design tables	<input type="checkbox"/>
Basics of Electrical and Wiring Including: reads and interprets diagrams, wires a class 2 control circuit; feeds to load and breaker and branch circuit wiring	<input type="checkbox"/>
Ventilation Including: Understands and applies ventilation code and ventilation requirements	<input type="checkbox"/>
Basic Heating Including: Understands heat distribution systems, environment considerations	<input type="checkbox"/>

Please indicate percentage of work performed in each area.

LEVEL 2 - GEOTHERMAL

Geothermal Industry Including: Knows use of geothermal technologies; applies thermal energy principles; knows environmental and economic factors affecting industry	%
Geothermal Heat Pump Systems Including: applies heat pump systems to geothermal sources; applies appropriate geothermal source to application	%
Field Analysis & Geology Including: identifies soil and rock types; determines soil conductivity and diffusion; understands mean temperature conditions and regional soil types; assess environmental sensitivities and impacts	%
System Design Including: assesses sites; designs ground heat exchanger systems(vertical, horizontal, slinky, open loop, surface water); determines heating and cooling requirements, distribution methods; determines equipment to be used; applies appropriate design standards; factors operational limitations	%



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LEVEL 2 - GEOTHERMAL cont'd

Controls Design	%
Including: Understands and applies control strategies for hydronic, forced air and chilled water	
Piping & Ducting Design	%
Including: applies knowledge of: buffer tank, radiant and heat pump piping; direct cooling: de-superheaters and domestic hot water; freeze protection; forced air sizing and modifications; vibration control and sound attenuation	
Installation	%
Including: Examines and installs complete loop systems; attains socket fusion; applies knowledge of install requirements for various loop systems, loop manifold systems and install procedures; selects appropriate drilling methods; plans for pressure testing, purging and flushing; prepares site plan documentation and applies freeze protection	
System Commissioning	%
Including: system start-ups; system performance evaluations; system documentation, system demos	
Servicing & Troubleshooting	%
Including: Troubleshoots using standard practice; tests equipment; repairs and services	

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