

CEEDA 2014/2015 CROP DRYER TECHNICIAN TRAINING PROGRAM



INFORMATION PACKAGE



**Canada East Equipment Dealers Association (CEEDA)
Technical Standards and Safety Authority (TSSA)
Hydrocarbon Training and Services Ltd.**

YOU WANTED TO KNOW

The issue of Provincial Certification for installing/servicing propane/natural gas crop dryers has been a topic of discussion in recent years. There is confusion in the industry. The certificate (Crop Dryer Technician – CDT) is relatively new (2005) and so is the training program.

The following represents the most often asked questions and we hope that you find the answers enlightening. For additional information contact the Canada East Equipment Dealers' Association (CEEDA):

- Telephone – 705-726-2100
- Fax – 705-726-2187
- Email – bev@ceeda.ca

CEEDA gratefully acknowledge the patience and flexibility offered by TSSA. Without their understanding and assistance it is unlikely that a program would have been created that truly serves the industry. They have demonstrated their desire to be seen as a “partner” rather than an “enforcing authority”.

For additional information about TSSA or the CDT certification process contact:

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Why is our industry faced with this?

Equipment, controls, federal/provincial Codes and customer expectations have changed significantly in the past 20 years. All training programs and certificates involving personnel who work with natural gas, propane and fuel oil have been revised and upgraded to reflect these changes.

EXAMPLES:

- To become an installer/service technician for natural gas and propane appliances whose input exceeds 400,000 B.T.U.s, you are required to successfully complete an accredited training program of approximately 800 hours plus extensive field experience. An appliance whose input is under 400,000 B.T.U.s requires 660 hours of training.
- To install/service propane appliances in mobile homes/R.V. you must successfully complete a 104-hour training program.

The following is based on information provided by the Technical Standards and Safety Authority (TSSA).

Changes to training, certification standards and processes are not restricted to the crop drying industry alone. Virtually every sector of the fuel industry ranging from the person who fills a barbecue cylinder to the industrial maintenance technician working in a steel mill, will or has been affected by the changes to training requirements and certification standards.

The intent of the changes is to raise the standard of training and skills level and apply these standards evenly across the province whereby all technicians are trained to the same level in an even and consistent manner. These standards apply as much to the student as they do to the organizations that deliver the programs. Each training delivery organization must first register with TSSA and enter into an agreement. This agreement requires that organizations deliver to the standards set by the industry and TSSA.

Many of us have held a gas ticket in the past and even taken manufacturer training. What was wrong with this training?

The gas ticket that you held may have been sufficient at the time. Manufacturer training is excellent but is generally very brand specific. A great deal has changed in the industry ranging from the introduction of newer technology in relation to the controls, flame safety and burners to changes in the various Codes and Standards that the dryers are built and installed to.

Our program has been developed in partnership with the crop dryer industry, CEEDA and TSSA to meet these changes. It has been created specifically for the agricultural crop dryer industry.

When I successfully complete the Crop Dryer Training Program what certificate do I receive and what does it allow me to do?

The certificate will be issued by TSSA under Regulation 215/01 of the Technical Standards and Safety Act, 2000 and is designated as the Crop Dryer Technician (CDT). It must be renewed every two years on your birthday. Be certain you notify TSSA of any address change as they send a reminder notice when renewal time approaches. Should you forget to renew the certificate you will be required to prove competency (write another examination and/or complete a practical skills assessment with a Fuels Safety Inspector) before another is issued. These requirements are similar to those of your driver's license.

The Crop Dryer Technician certificate will allow you to:

- Install, inspect, alter, purge, activate, repair, service or remove a natural gas or propane fired agricultural crop drying appliance and the equipment and accessories essential to its operation. This includes the initial light up and subsequent testing of all valves, switches, safety controls, etc.
- When performing the functions described above, the person may do the following:
 - (1) Ensure the safe installation, utilization, maintenance, repair or removal of an agricultural crop dryer.
 - (2) Maintain service or replace a mechanical or electrical component or accessory forming part of the appliance or essential to its operation.
 - (3) Perform the tasks that are necessary to replace controls and components that form part of an appliance.
 - (4) Install, repair, service and maintain electrical wiring for natural gas or propane-fired corn dryers from an existing branch circuit containing over current protection. The certificate holder is not permitted to install wiring back to the panel or perform any additional wiring unless he/she is also a certified electrician.
 - (5) Service and replace electrical switches, fuses and components that are directly related to the operation of the crop-drying appliance.
 - (6) Replace damaged sections of pipe/tubing that are located above ground and form part of the appliance manifold with pipe/tubing that has been prepared by an appropriate tradesperson.
 - (7) Clean and adjust the burners of a propane vaporizer.

The Crop Dryer Technician certificate will **not allow** you to:

- (1) Thread pipe/flare tubing. Due to time constraints cutting and threading pipe or flaring tubing are not included in the program. Therefore you are not allowed to thread pipe or flare tubing unless you are a certified tradesperson for that function. You are allowed to replace a section of pipe/tubing that is part of the appliance manifold, provided it been prepared by a certified tradesperson.
- (2) Install, service, repair, etc. any hydrocarbon appliance other than an agricultural crop dryer. The use of small barn

space heaters and tube heaters are common in the farming community. A G1 or G2 certificate is required to work on these.

- (3) Install a liquid propane pump or associated by-pass valve.
- (4) Work on any part of the natural gas piping system that is before (upstream) of the gas meter.
- (5) Work on any valve or fitting installed in a propane tank.
- (6) Work on **any** part a propane vaporizer that involves liquid propane.

As of August 1, 2008 regulatory changes to TSSA Fuels Regulations requires CDT Certificate holders to a minimum of one-year experience before safely activating equipment.

For further details please visit 'Latest News' under the Fuels Safety program on TSSA's website at www.tssa.org or contact the Customer Contact Centre toll-free at 1-877-682-8772.

There are so many service certificates. Briefly, what do they mean?

This is not a comprehensive review of all certificates. For specifics refer to Regulation 215/01 under the Technical Standards & Safety Act, 20001.

- G1 - This certificate allows the holder to install service, etc. any natural gas or propane appliance regardless of input. They are not permitted to work with any piping/tubing or component that contains liquid propane. This requires a LP (liquid propane) endorsement.
- G2 - This certificate allows the holder to install, service, etc. any natural gas or propane appliance whose input is not in excess of 400,000 B.T.U. As with the G1 they are not permitted to work with components in the liquid pumping system.
- G3 - This certificate is meant to allow the holder to be a "helper" until he/she can take additional training and up-grade the G3 to a G2, DA or similar certificate. Provided the G3 has "signed-off demonstrated practical experience," some functions can be performed on their own under general supervision of a technician who holds the appropriate certificate as outlined in Reg. 215/01. Other functions must be

performed under direct supervision of an appropriate supervising certificate holder.

- Domestic Appliance (DA) – This certificate allows the holder to work on unvented residential appliances whose input is less than 100,000 B.T.U. (clothes dryer, range, barbecue, etc).
- Records Of Training (ROT) – These are used and issued by the propane industry for individuals who perform functions that are not generally complex. Example; filling of propane cylinders. TSSA must review and accredit the training program but they do not issue the ROT.

** NOTE: The certificate allows the holder to perform the functions listed (see Regulation 215/01 for detail). **The certificate is not proof of competency**. Regardless of the certificate held by an individual they are responsible for having the knowledge and skills necessary to safely and efficiently service the customer's appliance or equipment per section 3 of the Natural Gas and Propane Installation Code (B149.1-00).*

Does everyone who works on the dryer require this certificate?

- Section 3 (1) of Regulation 215/01 under the Technical Standards & Safety Act, 2000 states - *“No person shall perform the functions of a certificate holder without having first obtained a certificate from the director.”*
- The definition of “Approved Appliance” from Reg. 215/01 – *“Means a device that uses a hydrocarbon including all valves, fittings, controls and components attached to the device that bears a label indicating that it meets an approved standard under any of the regulations mentioned in subsection 2(1).”*
- The definition of “Component” from the Natural Gas and Propane Installation Code (B149.1-00) is – *“An essential part of an appliance or equipment”*.
- The majority of crop dryers have an input in excess of 400,000 B.T.U.s. The only two certificates that are acceptable are a G1 or CDT. In the unlikely event that the crop dryer has an input of 400,000 B.T.U.s or less there are three acceptable certificates; G1, CDT, G2.

What about a certified electrician?

A certified electrician is not allowed to install, alter, service, repair, etc. any hydrocarbon appliance/equipment. Should an electrician wish to work on a crop dryer whose input is in excess of 400,000 B.T.U.s and he/she is the holder of a G3 (180 hour training program) or G2 (660 hour training program) certificate he/she can work under the direct supervision of a certified technician who is the holder of a current G1 or CDT certificate. The certified technician must be at the job site and readily available for consultation. The supervising technician will be responsible for the work completed by the electrician.

An electrician may be very knowledgeable in electrical troubleshooting and the Electrical Code. However he/she may not understand the operation, purpose or sequence of the controls, valves, switches, modules, motors, etc. of a hydrocarbon appliance and therefore may create or be subjected to a hazardous situation.

What about consumers who service their own crop dryer?

An end user/consumer or anyone else is not permitted to install/service their own crop dryer unless they are the holder of an appropriate certificate (G1, CDT). Not only would this be illegal, but it may also void their insurance.

What about an individual who works under the certificate of someone else?

No one is allowed to install/service etc. a hydrocarbon appliance or equipment unless they are a holder of a certificate for that purpose. If their certificate (G3 or G2) does not meet the standard required for a crop dryer they may work under the supervision of an individual who does hold the required certificate (G1 or CDT). The supervising certificate holder must be on-site and in close proximity to the trainee.

Why does it take ten full days to train the properties of natural gas and propane?

The use and properties of natural gas and propane will require less than one day. The other major subjects and **approximate** time frames are listed below. The program must be generic and cover key areas that the technician would normally be involved with while installing or servicing any agricultural crop dryer. Currently this includes grain or tobacco dryers. Depending on the equipment that you service, you may receive training on subjects that will appear to be of little use to you. However this program is for all types of crop dryers and it will give you the opportunity to expand your area of expertise.

- Natural gas, propane vapour - 6 hours
- Liquid propane, pumps and vaporizers – 3 hours
- Fuels regulation including certification, Ontario Regulations, Natural Gas and Propane Installation Code, Propane Storage and Handling Code, CSA Standard 3.8-99 – 10 hours
- Regulator and relief valve – 2 hours
- Combustion and carbon monoxide – 4 hours
- Valves, controls, flame safeties, pressure switches – 6 hours
- Flame rectification and electrical troubleshooting – 20 hours
- “Hands On” troubleshooting labs – 13 hours
- Classes will start at 8:00 AM and usually finish at 5:00 PM. There will be occasions when we will run later to meet the needs of any student. Some weekend homework assignments will be assigned.

There will be 269 Review Questions that will be done as homework and reviewed the next day. Anyone not completing this homework will be asked to leave.

CAN ANYONE TAKE THIS PROGRAM AND WRITE THE TSSA EXAMINATION?

- The upcoming program will be for personnel who are familiar with the operation and sequence of the standard natural gas/propane crop dryer. Our focus will be on the “gas train” and associated controls, not the mechanical operation of the other components. The employer will confirm this in a memo to CEEDA. See “Sample Work Experience Memo” on page 13.

WHAT ABOUT PEOPLE WHO CHOOSE TO CONTINUE “WORKING UNDERGROUND” WITHOUT PROPER CERTIFICATION?

- There are technicians who have been working without a proper certificate for some time and they have not been subjected to penalty. TSSA is currently increasing their Inspection staff and placing a renewed emphasis on compliance to the Regulations. This includes technicians who do not have the required certificate. Section 41 of the Technical Standards and Safety Act, 2000 states that the employer “Shall take every reasonable precaution to ensure that they and their agents and employees comply with this Act.” **I strongly suggest that you register for the program immediately if you do not have a G1 certificate.** By registering now you are demonstrating that you are taking “every reasonable precaution” to comply with the Act. A listing of all students who have registered will be submitted to TSSA.
- A “Non Conforming Hot Line” is being established between the CEEDA office and the Enforcement Section of TSSA. Certificate holders (CDT) will be encouraged to contact the CEEDA office if they are aware of any individuals’ installing/servicing crop dryers who do not have a G1 or CDT certificate. TSSA will take appropriate action.

- The maximum fines for non-compliance are stated in section 37 of the Technical Standards and Safety Act, 2000. I have abbreviated some as follows:

Every person convicted of an offence is liable for a fine of not more than \$50,000 and or imprisonment of not more than one year, or both. This also applies to a director or officer of a corporate body who has a duty to see that the Act is complied with. A corporate body convicted of an offence is liable to a fine of not more than \$1,000,000.

Sample “Work Experience Memo”

Please place the following memo on your company letterhead. The student must have a minimum of one year work experience relevant to crop dryers. If you are self employed, sign as both the employer and employee. Fax/mail/email to Beverly Leavitt at CEEDA. (Fax: 705-726-2187 or Email to bev@ceeda.ca) **DO NOT SIMPLY SIGN THE DOCUMENT BELOW AND SUBMIT IT. THIS IS NOT AN ACCEPTABLE WORK EXPERIENCE MEMO. IT IS MERELY A SAMPLE.**

Beverly Leavitt
Canada East Equipment Dealers’ Association
64 Temperance Street
Aurora, Ont.
L4G 2P8

Please be advised that **(insert student’s name)** has been actively employed in areas to crop dryers from **(date)** to **(date)**. I have evaluated **(insert student’s name)** and it is my opinion that he/she has:

- The necessary mechanical, reading, writing and math skills required for a CDT technician.
- Demonstrated a commitment to safety, customer relations, on-the-job learning and a willingness to take direction.
- Proven to be reliable, prompt and does not appear to have a substance abuse problem.

Documentation is available to verify that **(insert student’s name)** has observed a CDT certificate holder complete the following tasks:

- Selection, cleaning and safe use of hand and power tools.
- Selection and use of standard types of fasteners and clips.
- Reviewed the purpose and sequence of the propane/natural gas controls associated with crop dryers on a minimum of 8 occasions.
- Observed the annual maintenance/start-up inspection and leak testing of a crop dryer on a minimum of 8 occasions.

It is my recommendation that **(insert student’s name)** be accepted as a student for the Crop Dryer Technician Training Program.

Employer’s name _____

Employer’s signature _____

Position held in company _____

CDT Certificate holder’s signature _____

Certificate number _____

What is the cost?

- The cost per student for **members of CEEDA** is \$2,750 (plus HST).
- The cost per student for employers who are **not members of CEEDA** is \$3,150 (plus HST).
- Included in the fee are the following approximate costs:

Codes (B149.2), Energy Act and Ontario Regulations
\$275

Two Student Training Manuals.
\$225

TSSA Examination and Crop Dryer Technician Certificate.
\$800

Expenses Pertaining To Instruction, Student Supplies, Meeting Room and Training Boards.
\$447

Cost of Instruction.
\$737 (\$56.69 per day of training)

Administration
\$250

- The program comes with a “No Invoice Guarantee”. Should the quality of the training not be acceptable there is no charge.
- Complaints must be registered with CEEDA within one week after program completion. CEEDA will sit in judgment of all complaints and their decision will be final.

How do I register and what is the schedule?

- Fax or mail the attached Registration Form and Work Experience Memo (see page 13) **accompanied by non-refundable cheque made payable to the Canada East Equipment Dealers Association, Unit C1, 580 Bryne Drive, Barrie, ON L4N 9P6 or Visa/MasterCard payment in the amount of \$1050.**

The remainder of the payment will be required at least two weeks prior to commencement of training.

Registration and full payment must be received by CEEDA prior to the commencement of the course.

- The next CDT Program is scheduled to take place December 1-12, 2014 at: **TBD**. Every effort will be made to have lunch made available for purchase.

You must be properly certified for the 2014/2015 crop-drying season.

CEEDA Crop Dryer Technician Training Program
2014/2015 Registration Form

*Mandatory Required Information

TECHNICIAN'S NAME: _____
HOME ADDRESS: _____
CITY/TOWN: _____ POSTAL CODE: _____
HOME TELEPHONE: (_____) _____ FAX: (_____) _____
Email: _____

EMPLOYER: _____
BUSINESS ADDRESS: _____
CITY/TOWN: _____ POSTAL CODE: _____
TELEPHONE: (_____) _____ FAX: (_____) _____
Email: _____



*****Non-refundable deposit of 1050.00 and Work Experience Memo must be included to validate registration. Full payment must be received prior to the commencement of the course. Payment by cheque, MasterCard or Visa accepted**

Visa/MasterCard # _____ Expiry Date: _____
Cardholder Name: _____ Signature: _____