

#### Joint Training and Apprenticeship Committee

Refrigeration Workers Local 787 - O.R.A.C. Training Fund 419 Deerhurst Drive, Brampton, ON L6T 5K3 Tel: 905-790-9662 Toll Free: 1-888-305-9993 Fax: 905-790-9711 Web: www.jtac787.org

# **Training News**

#### **Fall 2012**

Fall greetings from the staff at the JTAC.

We trust that all members and their families had a pleasant summer, and were able to get away for some well deserved time with the family.

Highlights for this Training Season are:

- The Ontario College of Trades
- 636G Gas Technician Apprenticeship
- 456A Welding Apprenticeship

The JTAC has been working to prepare for the 2012-2013 calendar year, which is full of new and exciting courses to keep the members up-to-date.

Enclosed, you will find the 2012-13 course selection, and the ODP card Renewal form.

Please join us at the Training Centre for one of the many courses offered.

See you at the Training Centre.

Please Note: We are mailing this letter to only members that have not supplied U.A. local 787 with an email address. All other members will receive the News via e-mail.

#### The Ontario College of Trades (OCOT)

The Ontario College of Trades (OCOT) is in the process of becoming 100% functional. At this time they are reviewing a number of trade regulatory issues and policies to govern all the trades that were legislated to move over from the Ministry of Training Colleges and Universities (MTCU). It should be fully functional in the New Year. We will keep you posted on their progress.

Please visit their web site and sign-up for their news. Go to: <a href="http://www.collegeoftrades.ca/category/news">http://www.collegeoftrades.ca/category/news</a>
This is a current info slide presentation:

http://www.iciconstruction.com/admin/contentEngine/contentDocuments/OCS\_AGM\_2012\_-\_Presentation\_-BGuthrie-OCOT-9-04-12.pdf

You can also contact Shane McCarthy if you need assistance with a file copy or any questions.

shane.mccarthy@jtac787.org

#### 636G Gas Technician Apprenticeship

The 636G Gas Technician Apprenticeship is now in effect. It has some unsettled issues with exemptions however interested members may sign-up anytime to start as a new first year apprentice. The 636G apprenticeship is a collaboration between MTCU and TSSA. It will migrate over to OCOT fully very soon.

TSSA has a policy document that explains the process:

http://www.tssa.org/corplibrary/ArticleFile.asp?Instance=136&ID=43B862EB79C311E1AFDF24947EB9258C

If you have an existing G.3 certification you many also register as an apprentice, although at this time exemptions are not being allowed.

You can also contact Shane McCarthy if you need assistance with a file copy or any questions.

shane.mccarthy@jtac787.org

#### **456A Welding Apprenticeship**

The JTAC will be running our first Level 1 Welding Apprenticeship in-school class at the end of January 2013.

January 21<sup>st</sup> to March 28<sup>th</sup> for 10 weeks

This is a pilot program and if we have an on-going demand for additional classes we will continue to offer more welding in-school classes.

For more Info go to: <a href="http://www.tcu.gov.on.ca/eng/employmentontario/training/pdf/456A\_Eng.pdf">http://www.tcu.gov.on.ca/eng/employmentontario/training/pdf/456A\_Eng.pdf</a>

Interested members in a welding apprenticeship should contact Shane McCarthy shane.mccarthy@jtac787.org

#### **Registration Deposit**

All members must pay a \$100.00 course registration deposit fee when signing up for the 1<sup>st</sup> course of each training calendar year. This fee will be refunded to the member in May of each year via a cheque from the JTAC office, *if* and only if the member has attended all classes that he/she has registered to attend for the complete training calendar year.

If a member needs to cancel a course it must be done a minimum of 5 business days before the course date, otherwise the member will forfeit the \$100.00 registration deposit fee.

A signed medical doctor's note is acceptable in emergency situations.

All members must register with the JTAC office.

The on-line website option for course registration and payment will not be available at this time.

We have implemented this process to make more spots available for the members who truly want to attend our courses. We have had on-going problems with attendance and no-shows for classes preventing the JTAC from offering these classes to other members.

Please help us to make the best of our training opportunities.

Thanks for your cooperation.

#### **Out of town JTAC Training Programs**

We will arrange to deliver courses out of town if a group of 12 members are committed to attending a course that we have designed as mobile. We can run most courses out of town if they do not require extensive lab resources.

We will be sending out a schedule for the Ottawa Training Centre very soon.

Please call the training office for additional details, or e-mail <a href="mailto:shane.mccarthy@jtac787.org">shane.mccarthy@jtac787.org</a>

#### **Non-JTAC Training Programs**

<u>Increased Allowance:</u> All JTAC/Local 787 Members paying into the Training Fund are eligible to submit once per year, a course expense of **\$500.00** to the Training Office, for:

#### **APPROVED COURSES.**

You <u>MUST</u> have the course pre-approved by the Training Director, and it must be trade related! A receipt and official transcript of successful completion must be received in the JTAC office for rebate.

NO retro active payments.

#### **Apprenticeship Contracts**

To all Apprentices; if you change employers please ensure you present the new employer with a copy of your contract of apprenticeship and any transfer documentation.

#### Thank You

#### Night School and Home Study Apprenticeship Training Program

Should you be working late and are not able to attend a session of Night School, the JTAC office needs a letter/e-mail from your employer stating your Name, N/S Level, Night, and reason.

Marks are deducted for un-excused absences and 3 absences warrant your removal from the JTAC program.

Night School and/or Home Study are compulsory and must be successfully completed in order to graduate from the Program.

#### **Ministry School Not at the JTAC**

If apprentices are attending Day School outside of the JTAC Training Centre then you <u>MUST</u> include a copy of your marks from the college you have attended, when you send in your Status Form for a Referral. No Ministry School hours will be credited without the JTAC office receiving a copy of your marks.

#### **Maintenance Mechanic Course Eligibility**

Maintenance Mechanics are eligible to take only the following JTAC offered Courses:

G3 and ODP Certification, unless authorized by the JTAC Committee.

#### **Gas Technician Courses**

#### Gas and Oil On-Demand

The JTAC is running all levels of Gas Technician courses at the Training Centre in Brampton G.1, G.2 and G.3 programs run every other weekend on Saturdays and Sundays, plus fast-track G.1 blocks.

We are building Gas courses in the out-of-town areas. Please call to have your name added to the list. The only cost for the course is for books and codes. Please contact the JTAC office for current prices

#### Fast track G.1

Fall 2012 – Full

Next Class

March 16 to March 24, 2013 - 4 weeks recess

April 20 to 28, 2013, exam on last day

18 days (2 x 9 day blocks) of intensive training!

#### Oil Technician 2 Courses

## Oil Burner 2 Technician Up-grade Course 18 days Fast Track Format (2 x 9 day blocks) Only available in Brampton at the Training Centre February 2 to 10 and March 2 to 10. 2013

This is a customized course specifically designed and approved for HVACR workers only. There are strict pre-requisite agreed to with TSSA for eligibility to participate in the program.

1. Be a valid holder of a 313A C of Q and a G.2 or higher C of Q holder. (i.e. Refrigeration and Air Conditioning Mechanic and Gas Technician 2)

or

- 2. Be a minimum of 4<sup>th</sup> year apprentice who has completed all the day school and night school/home study requirements, and is a G.2.
- 3. An OBT 3 can be accepted in place of the G.2 C of Q.

On successful completion of the course (passing the practical component with 75% mark or above) the participant will be eligible to write the OBT exam provided by TSSA for certification as an Oil Burner 2 Technician.

Full attendance (100%) is mandatory as this is a modified program with no allowance for absenteeism. All attendees will be required to show proof of valid certification on the first day.

The only cost for the course is for books and codes.

Please contact the JTAC office for current prices

Please contact the JTAC office if you would like to participate.

#### Call the JTAC office for Registration

or e-mail

adeela.chaudhry@jtac787.org

#### **ODP Report**

#### All members need to have a valid/current ODP card.

If you have let your card expire then you must take the **FULL 1 Day course**.

If your card is current, please fill out the renewal form included, six weeks prior to expiry and send to the JTAC office via mail or fax.

Notice: The JTAC will not reimburse any other ODP renewal programs.

On-Demand
Call the JTAC office for ODP Registration
Or contact:

adeela.chaudhry@jtac787.org

On behalf of the JTAC Staff and Trustees we would like to wish everyone a safe and prosperous Fall.

Work Safe, Work Smart-Your Family Needs You!

Yours in Training,

Shane McCarthy
Training Director
JTAC/U.A. Local 787
shane.mccarthy@JTAC787.org

or Phone Your Request to: (905) 790-9662

> or 1-888-305-9993

or Fax or Mail

Completed Registration form to: (905) 790-9711 Completed Registration form to:
419 Deerhurst Dr.
Brampton, Ont.
L6T 5K3

	Description	Dates &	Choice
<b>Program Selection</b>	Description		Choice
		Locations	
New		Thursday Night	
	Don't miss this presentation by:	T (1 A 11)	
Honeywell	Scott McDonald and Gerry Cellucci	In the Auditorium	
Economizers	Learn all about the new JADE controller and how	November 22, 2012	
		6:30pm to 9:30pm	
Systems	to retrofit existing systems in the field	@ T.C. Brampton	
The IADE			
The JADE revolution			
New	This program will include the following:	Thursdays	
	-Why Compressors Fail. (includes hands on)	4-nights	
E-ma	-Product Selection Software & Web Based Utilities	1119110	
Emerson	How to Find Energy Savings by Floating Head	Stantina	
Digital	Pressure, On line Energy Saving Calculator	Starting	
Controlled	-Energy Savings Through the Use of Floating Head	March 21, 2013	
	Pressure Systems.	4 weeks in length	
Refrigeration	-New Copeland Compressor Technologies		
	<ul> <li>Digital Capacity Modulation (10 to 100%),</li> <li>30% Energy Savings of Digital Vs Hot Gas bypass,</li> </ul>	6:30pm to 9:30pm	
	Supermarket Rack advantage of Digital modulation		
	-Copeland CoreSense Compressor Diagnostics	@ T.C. Brampton	
	-Emerson Electronic Valves and Controllers		
	Reduced Defrost times, Quicker Pull Down		
	Time, Ideal for Floating Head Pressure Systems,		
	Eliminates Floodback when Evap Fan Motor		
	Burns, Controller Set up and Troubleshooting,		
	TCIP & Modbus Connectivity		
New	The R744 (CO <sub>2</sub> ) introductory program will	Week-End	
IVEW	consist of the following: CO2 Refrigeration	,, сон ши	
	Fundamentals.	Saturday & Sunday	
_	Introduce the basics of working on carbon dioxide systems	January 26 and 27,	
CO <sub>2</sub>	and help prepare students for advanced studies of CO2	2013	
Carbon Dioxide	(R744) refrigeration systems.	8:30am to 4:30pm	
(R744)	The course will cover design, installation and maintenance	@ T.C. Brampton	
Basic Training	issues, explaining the advantages and challenges of using		
Dasic Hammig	R744, including leak and pressure testing, as well as		
	charging and venting.		
	Describing the basic components and functionality of CO2		
	systems, including volatile secondary refrigerants (with		
	direct expansion and cascade), trans-critical and direct		
	expansion.		

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<b>Program Selection</b>	Description	Dates &	Choice
Motors & Pumps Service & Repair 12 Students Max	Procedures used in field repairs of motors and pumps.  Some hydronic and fluid systems are included	Locations Saturday Only December 1, 2012 8:30am to 4:30pm @ T.C. Brampton  Saturday Only February 9, 2013 8:30am to 4:30pm @ T.C. Brampton	
R-22 Replacements and Retrofits  A certificate will be issued	HFC-410A Application & HCFC-22 Conversions  Topics  Current info and documents  HCFC 22 to HFC Conversions  Safety and handling  Physical properties  System applications  Tools and equipment	Thursday Nights On Demand Call to register 6:30pm to 9:30pm @ T.C. Brampton	
Fundamentals of Orbital Welding 8 Students max.	Learn how to weld stainless steel tubing and fittings with a state-of-the-art Orbital Welding Machine CO <sub>2</sub> refrigerant compatible	Saturday Only  Saturday April 13, 2013 8:30am to 4:30pm @ T.C. Brampton	
Basic Welding Technology 1 8 Students max.	Workshop for Mechanics or Apprentices looking to learn or refresh Welding techniques  SMAW GMAW GTAW	Week-end Saturday & Sunday November 17 & 18, 2012 8:30am to 4:30pm @ T.C. Brampton	
Welding Technology 2 8 Students max. Prerequisite #1	Continuation from the Basic session building on the welding skills of the following  • SMAW  • GMAW  • GTAW	Week-end Saturday & Sunday December 8 & 9, 2012 8:30am to 4:30pm @ T.C. Brampton	

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Program Selection	Description	Dates &	Choice	
		Locations		
Purge		Saturday Only		
	Operation and Maintenance of Purge Units	February 23, 2013		
O & M	for Low Pressure Chillers	8:30am to 4:30pm		
12 Students max.		@ T.C. Brampton		
Chiller	Microprocessor familiarization for LOW	Week-End		
Micro-Processor	pressure (R123) chillers	Saturday & Sunday		
Low Pressure	York, Carrier and Trane to be studied	March 2 & 3, 2013		
	Some hands-on with trainers	8:30am to 4:30pm		
12 Students max.	will be included.	@ T.C. Brampton		
	win be included.			
Chiller	Microprocessor familiarization for HIGH	Week-End		
Micro-Processor	pressure chillers	Saturday & Sunday		
		March 23 & 24,		
High Pressure	York, Carrier and Trane to be studied	2013		
Students max.	Some hands-on with trainers	8:30am to 4:30pm		
Students max.	will be included.	@ T.C. Brampton		
		***		
York YK		Week-End		
High Pressure	Manufacturer	Saturday & Sunday		
Centrifugal	Specific	January 26 & 27, 2013		
Tear-Down	Training	8:30am to 4:30pm		
		@ T.C. Brampton		
McQuay CE	Each session will focus on the information and	Week-End		
High Pressure	skills necessary to successfully tear down and	Saturday & Sunday		
Centrifugal	rebuild the compressor and associated	February 9 & 10,		
Tear Down	components.	2013		
Tear Down	•	8:30am to 4:30pm		
	10	@ T.C. Brampton		
Trane CVHE	12 participants max.	Week-End		
3-stage		Saturday & Sunday		
Centrifugal		January 12 & 13,		
Tear-Down		2013		
		8:30am to 4:30pm		
		@ T.C. Brampton Week-End		
Chiller	On and an and Mai day of CU II	Saturday & Sunday		
O&M	Operation and Maintenance of Chillers	February 9 & 10,		
Jan	Both Centrifugal and Positive Displacement Systems	2013		
20 Students max.	will be covered	8:30am to 4:30pm		
20 Students max.		@ T.C. Brampton		

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Program Selection	Description	Dates &	Choice
		Locations	
Electronic & Microprocessor Controls	This program is specifically designed for Refrigeration and Air- Conditioning Mechanics and Apprentices who want to develop their skills to work confidently in the Building Automation Technology Field.  The participant upon completion of the <b>40-hour</b> course should have an understanding of EMC terminology and applications of the various inputs, outputs devices and	Multiple Week-Ends 2-Saturdays & Sundays January 19 & 20, 2013	
Certificate Course 40 hour	communication protocols. Various typesof input and output device shall be identified and explained through workplace examples. Through lab applications the participant's knowledge will be applied as they change input and output values integrating software and computers. Literature shall be provided in electronic format beyond the required classroom presentation and lab	and February 2 & 3, 2013 8:30am to 4:30pm @ T.C. Brampton	
**This course is recommended before taking any DDC and BAS courses**	documentation.  Hands-on experience will include configuring and programming of specific control manufacturers' software and firmware.  * Some homework will be assigned and credited		
Electrical Troubleshooting Upgrade Program	This course will review the process of using electrical HVACR diagrams in troubleshooting systems.  Diagnostic equipment and their applications will be studied.  Pre-requisite: 3 <sup>rd</sup> year Apprentice	Week-end Saturday & Sunday April 20 & 21, 2013 8:30am to 4:30pm @ T.C. Brampton	
Indoor Environmental Quality IEQ/IAQ	Health, Comfort, and Energy. The complete solution through Indoor Environmental Quality.  CO <sub>2</sub> Demand Ventilation. Contaminants affecting Indoor Air Quality	Week-end Saturday & Sunday February 23& February 24, 2013 8:30am to 4:30pm @ T.C. Brampton	
Geo-Exchange Energy Systems  A seminar covering the installation of Geo-exchange systems.	As energy costs continue to rise, more and more geo- exchange systems are being installed in the ICI sector.  Learn about the aspects of these systems in regards installation, commissioning and service. Who are the Canadian Geo-Exchange Coalition and the International Ground Source Heat Pump Association As an introduction, this seminar will prepare the student for continued pursuit of knowledge in this re- emerging emerging field.	Saturday January 12 & 13, 2013 8:30am to 4:30pm @ T.C. Brampton	

<u>Name</u> . <u>UA Card #</u> . <u>Phone #</u>

Program Selection	Description	Dates &	Choice
1 Togram Sciection	Description	<b>Locations</b>	Choice
Honeywell	Manufacturer Specific Training	Thursdays	
Controls		6-nights	
	The participant upon completion should have an	o-mgnts	
& L CDC C	understanding of the functionality of the hardware and configuration process of a HW Lon based LCBS Building	Starting	
LCBS System	Automation Systems BAS. The <b>two-day</b> training session		
<b>Basics</b>	will complement the general knowledge of the participants	November 15, 2012	
	understanding of BAS through application of the LCBS	6 weeks in length	
12 Students Max	software. In a lab environment, participants will commission the LCBS controls in small group projects.	6:30pm to 9:30pm	
	Literature shall be provided in electronic format beyond		
	the required classroom presentation and lab	@ T.C. Brampton	
	documentation.		
	Create and design network		
	Select components		
	• XL 10, 15, 15C + actuators		
	Remote Applications		
	Manufacturar Specific Training	Sunday Only	
York	Manufacturer Specific Training The participant upon completion should have an	Sulluay Olliy	
AutoZone	understanding of the functionality of the hardware and	Sunday	
rutozone	configuration process of a YORK Autozone BAS. The	April 21, 2013	
Control system	one-day training session will complement the general	8:30am to 4:30pm	
12 Students Max	knowledge of the participants understanding of BAS.	@ T.C. Brampton	
	Application of a constant volume rooftop using pressure		
	dependent, pressure independent and bypass dampers shall be discussed and demonstrated. Applying the software in a		
	lab environment the participants shall build and		
	commission the lab trainer as a group project. Literature		
	shall be provided in electronic format beyond the required		
	classroom presentation and lab documentation.		
Carrier	Manufacturer Specific Training	Week-End	
3V Control System	The participant upon completion should have an	TOOM DING	
&	understanding of the functionality of the hardware and	Saturday & Sunday	
CCN	configuration process of a Carrier 3V BAS. The <b>two-day</b>	March 23 & 24,	
	training session will complement the general knowledge of	2013	
12 Students Max	the participants understanding of Carrier 3V BAS.	8:30am to 4:30pm	
	Application of a constant volume rooftop using pressure	@ T.C. Brampton	
	dependent, pressure independent and bypass dampers shall be discussed and demonstrated. Applying their knowledge		
	in a lab environment the participants shall commission the		
	3V lab trainers in small groups. Literature shall be		
	provided in electronic format beyond the required		
	classroom presentation and lab documentation.		

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Program Selection	Description	Dates &	Choice
		Locations	
Johnson Controls UNT Controller Basics	Manufacturer Specific Training The participant upon completion should have an understanding of the functionality of the hardware and configuration process of a JCI UNT BAS controller. The two-day training session should complement the general knowledge of the participants understanding of BAS through application of the JCI HVAC Pro software. In a	Saturday Only Saturday November 24, 2012 8:30am to 4:30pm @ T.C. Brampton	
12 Students Max	lab environment, participants will commission the UNT controller in small group projects. Literature shall be provided in electronic format beyond the required classroom presentation and lab documentation.		
Johnson Controls	Manufacturer Specific Training	Week-End	
The DX9100 Controller  12 Students Max	The participant upon completion should have an understanding of the functionality of the hardware and configuration process of a JCI DX9100 BAS controller. The <b>two-day</b> training session should complement the general knowledge of the participants understanding of BAS through application of the JCI HVAC Pro software. In a lab environment, participants will commission the DX9100 controls in small group projects. Literature shall be provided in electronic format beyond the required classroom presentation and lab documentation.	Saturday & Sunday February 23 & 24, 2013 8:30am to 4:30pm @ T.C. Brampton	
Johnson Controls	Manufacturer Specific Training	Week-End	
Facility Explorer  FX16 series Field Controller  (DX 9100 Training Recommended)  12 Students Max	<ul> <li>FX Applications</li> <li>Control Strategies</li> <li>Set-up and communications</li> <li>Operations</li> <li>Commissioning</li> <li>A look at Supervisory</li> <li>Programming Concepts</li> <li>FX Networks &amp; Frame Work</li> </ul>	Saturday & Sunday March 16 & 17, 2013 8:30am to 4:30pm @ T.C. Brampton	
Johnson Controls  Supervisory Tridium Controllers  12 Students Max	Manufacturer Specific Training The participant upon completion should have an understanding of the functionality of the hardware and configuration process of a JCI FX Tridium controller. The one-day training session should advance the knowledge of the participants understanding of JCI BAS through application of the JCI FX Tridium controller. In a lab environment, participants will discover the JCI FX through an instructor led group project. Literature shall be provided in electronic format beyond the required classroom presentation and lab documentation.	Saturday Only  Saturday April 6, 2013 8:30am to 4:30pm @ T.C. Brampton  Thursday Night  Thursday Oct 25 <sup>th</sup> , 2012 6:30pm to 9:30pm @ T.C. Brampton	

<u>Name</u> . <u>UA Card #</u> . <u>Phone #</u>

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Program Selection	Description	Dates &	Choice
		Locations	
	The purpose of this session is to review the basics of	Saturday Only	
<b>Combustion Basics</b>	combustion from a technician's stand point. This course is		
	designed for the industrial, commercial & institutional	December 8, 2012	
&	service technician with emphasis on combustion concepts,		
Flue Gas Analysis	and light on engineering formulas/theory.	8:30am to 4:30pm	
•	A thorough knowledge of combustion allows the		
With Practical	technician to operate and understand virtually any flue gas	@ Brampton T.C.	
With Tractical	analyzer.	Saturday Only	
	Special emphasis will be focused on carbon monoxide and	Saturday Omy	
(16 Students Max)	NOX gas.	Manah 0 2012	
(10 Students Wax)	A variety of gas analyzers will be studied and	March 9, 2013	
	demonstrated.	8:30am to 4:30pm	
	A course book will be supplied		
	A course book will be supplied.	@ Brampton T.C.	
	Carrier-48 Series	Monday	
IImitawy/Daaf Tam		•	
Unitary/Roof Top	York-Predator	Nights	
Integrated	Lennox-Energence & Landmark		
Modular	Trane-Voyager & President	8-nights	
Control	Trane-Intellipak	O	
Control	<b>11 анс</b> -инетрак	Starting	
	Roof Top Control Systems.	<b>April 1, 2013</b>	
	21002 2 op 201102 01 2 J 2001120	• ,	
	Servicing and troubleshooting of the	Schedule to be	
	associated microprocessor control modules.	supplied	
	To include ignition and economizer boards.	6,20nm to 0,20nm	
	<del>g</del>	6:30pm to 9:30pm	
		@ T.C. Bramnton	
		@ T.C. Brampton	
	Theory, Operation, Installation, and Retrofit	-	
Flomo Sofoguard		Week-End	
Flame Safeguard	This course introduces the student to Flame Sensing	-	
Flame Safeguard Controls	This course introduces the student to Flame Sensing Technologies used in modern burner controls.	Week-End Saturday & Sunday 8:30am to 4:30pm	
O	This course introduces the student to Flame Sensing Technologies used in modern burner controls.  Both Honeywell and Fireye Flame Safeguards will be	Week-End Saturday & Sunday 8:30am to 4:30pm	
Controls	This course introduces the student to Flame Sensing Technologies used in modern burner controls.  Both Honeywell and Fireye Flame Safeguards will be studied, first the primary control type, then "high	Week-End Saturday & Sunday 8:30am to 4:30pm <u>1-Week-End</u> November 17 & 18	
O	This course introduces the student to Flame Sensing Technologies used in modern burner controls. Both Honeywell and Fireye Flame Safeguards will be studied, first the primary control type, then "high end" programming controls.	Week-End Saturday & Sunday 8:30am to 4:30pm	
Controls	This course introduces the student to Flame Sensing Technologies used in modern burner controls. Both Honeywell and Fireye Flame Safeguards will be studied, first the primary control type, then "high end" programming controls.  Some practical work with Flame Safeguards will be	Week-End Saturday & Sunday 8:30am to 4:30pm <u>1-Week-End</u> November 17 & 18 2012	
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Controls	This course introduces the student to Flame Sensing Technologies used in modern burner controls. Both Honeywell and Fireye Flame Safeguards will be studied, first the primary control type, then "high end" programming controls. Some practical work with Flame Safeguards will be undertaken, therefore the student will need to be prepared with hand tools and a multimeter (Cat 3 Certified). Relevant Safety equipment will be needed by the student for the practical work.	Week-End Saturday & Sunday 8:30am to 4:30pm <u>1-Week-End</u> November 17 & 18 2012	
Controls	This course introduces the student to Flame Sensing Technologies used in modern burner controls.  Both Honeywell and Fireye Flame Safeguards will be studied, first the primary control type, then "high end" programming controls.  Some practical work with Flame Safeguards will be undertaken, therefore the student will need to be prepared with hand tools and a multimeter (Cat 3 Certified). Relevant Safety equipment will be needed	Week-End Saturday & Sunday 8:30am to 4:30pm <u>1-Week-End</u> November 17 & 18 2012	

1	Name	•	UA Card #	•	<u>Phone #</u>

Please indicate your selections in order of preference. (i.e. 1, 2, 3 etc.)

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Program Selection	Description	Dates & Locations	Choice	
Nights  Basic Electronic Theory  *Recommended before the EMC course*	Designed to present the basic fundamentals of Electronics pertaining to the HVAC & R Industry.  Some hands-on lab work will be included	Thursdays 6-nights 6:30pm to 9:30pm Starting January 10, 2013 @ T.C. Brampton Schedule to be supplied		
Nights  Motor Technology and The ECM (electronically commutated motor)	This is the Fractional Horse Power replacement of the future  A complete review of motor technologies and starting techniques.  Understanding and working with the ECM variable speed system, . Evergreen ECM replacement motors	Thursdays 6-nights 6:30pm to 9:30pm Starting February 28, 2013 @ T.C. Brampton Schedule to be supplied		
Variable Frequency	Plus: new Communications and data logging using MS Excel	Week-End		
Drive-Basics 12 Students max.	This course will provide an over-view of current drive fundamentals, operation and maintenance.  Lab work included	December 1 & 2, 2012 8:30am to 4:30pm @ T.C. Brampton		
Variable Frequency Drives-Advanced 12 Students max.		January 19 & 20, 2013 8:30am to 4:30pm @ T.C. Brampton		
PLC Basics 12 Students Max	PLC Basics as applied to the HVACR industry  Course will cover numbering systems, ladder logic and communications with an emphasis on hands-on labs. PLC models covered will be Allen-Bradley, Omron,  Telemecanique and LG	Week-End  January 12 & 13, 2013 8:30am to 4:30pm @ T.C. Brampton		
Screw Compressors Theory & Operation	An overview of various compressors and their applications will be studied. The operation, maintenance and servicing of popular types will be presented. Topics include:  • Single drive rotor design with spur rotors • Twin helical parallel rotors • Tri parallel rotors • Various types of capacity control • Gear driven or an intermesh rotor and drive rotor • Multi stage compound screw compressors • Various application styles of Hot Gas Bypass	Thursday Night  February 21, 2013 6:30pm to 9:30pm @ T.C. Brampton		

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Name	•	UA Card #	•	Phone #	

The above programs require a minimum of 12 participants, or as otherwise stated.



#### Joint Training and Apprenticeship Committee

Refrigeration Workers Local 787 - O.R.A.C. Training Fund 419 Deerhurst Drive, Brampton, ON L6T 5K3 Tel: 905-790-9662 Toll Free: 1-888-305-9993 Fax: 905-790-9711 Web: www.jtac787.org

#### O.Reg. 463/10 **Ozone Depleting Substances** Fluorocarbon Refrigerants Handling Form for New/Expired or Renewal of Certificates

<u>*</u>	ificate will be sent to the home address provided.  box below and mark with an X						
	icate   Renewal Certificate						
<b>ODP</b> Card #:	Expiry date:						
Name:	U/A card #						
313A/313D Certificate:	E-mail:						
Home Address:	Apt/Unit #						
City: Postal Code:							
Home Phone: W	/ork/Cell:						
Present Employer:							
As per the requirements of O. Reg. 463/10 Section 34.(4)(b), a \$50 administration fee will be deducted from the member's training allowance for non-expired re-certification. New certification or expired re-certification will have an administration and material fee deduction of \$200 from the member's training allowance. <i>Expired certificates require that the person attend a full day certification program and pass the exam.</i> A Passing grade of 75% is required for certification.							
Information below is to be completed only for new or expired ODP Certifications.							
Instructor Name: Instructor Signature:							
Course Name & Code: ODP 463/10-	Date:						
For Office Use Only: ODP Mark:	Pass □ Rewrite required □						