



# LIQUID PENETRANT Level 2



**Get Recognized.  
Take charge!**

**Greater career  
opportunities!**

**This course is  
your first step to  
becoming an  
Industrial  
Radiographer.**

This five-day course (40 hours) will provide the NDT knowledge and the confidence for participants to assume the responsibilities of a Level 2 Liquid Penetrant Technician. This comprehensive course includes the theory and practical applications of the Liquid Penetrant method, a review and use of test equipment, along with the use of standards, specifications and procedures.

The theoretical subject matter, supplemented by evening assignments, daily quizzes, and practical hands-on instruction worksheets will allow both the participant and instructor to monitor progress and prepare for the final closed book examination held on the final afternoon of the course.

INTEG advantage: “pract-Ability+Plus” Understanding the testing variables for technique & procedure development.

As part of our practical classroom training, students will practice with representative test specimens, of actual product(s), to demonstrate familiarity in the operation of testing equipment, performance of calibration requirements, recognition of specific process controls, interpretation of test results, and evaluation to standard reference specifications.

INTEG training courses meet the requirements of CAN/CGSB-48.9712-2006, IAEA Techdoc 628, SNT-TC-1A & NRCan NDT Certifying Agency Curricula.

## What’s Involved and What do I Receive?

- World-class teaching and knowledge from our instructors who are recognized experts in their respective disciplines with extensive industrial hands-on experience as well as academic capabilities.
- An opportunity to network with industry professionals.
- Upon successful completion of the course the participant will receive a Certificate and an Examination Transcript (a minimum passing grade of 70% for each of the examination parts, general & specific, along with full attendance is required).
- Successful completion of the course meets the training requirements for certification by NRCan\*.
- A detailed workbook will be provided to each participant.
- Current QCC members receive a 10% discount on course fees.

The following topics are covered:

- The History of Penetrant Testing
- The Basic Principles of Liquid Penetrants
- Introduction to NDT and the Relationship of Penetrant Testing to other NDT methods.
- The Penetrant Process and Details of Entire Process from pre-cleaning to post-cleaning
- Application of the method, characteristics of each process and their advantages and limitations
- Inspection materials, their sensitivities, specialty penetrants, removers, developers and cleaning materials
- Penetrant Test Equipment
- Quality Control of Process and Equipment
- Types and sources of discontinuities during inspection, interpretation and evaluation
- The use of standards, specifications and procedures for technical report writing

## Course Entry Pre-Requisites

- High school diploma or equivalent or
- Successfully completed Materials and Processes course or exam or
- For Ontario candidates only, successfully completed the INTEG course entry math fundamentals exam and
- Must be at least 18 years of age

Safety footwear is required for practical sessions. All other personal protective equipment is provided by INTEG.

\* Qualification for certification to CAN/CGSB-48.9712 requires a minimum of 4 months related on –the-job industrial experience.

\* For certification, applicants also must provide Natural Resources Canada (NRCan), the certifying agency, with evidence of successful completion a recognized (40) forty hour Engineering Materials and Components training course, OR successful completion of an equivalency examination (a one-time exam with a passing grade requirement of 70%). Current candidates with two (2) or more CGSB certifications are exempt from this requirement.



1.800.844.6790 | [www.cwbgroup.org](http://www.cwbgroup.org) | Fax: 905.542.1318



# LIQUID PENETRANT Level 2

# REGISTRATION FORM



## 1 All sessions start at 8:30 a.m. and end at 5:00 p.m. Choose your Session

- |  |
|--|
| <input type="checkbox"/> January 9 – 13, 2012 - Edmonton |
| <input type="checkbox"/> March 19 – 23, 2012 - Calgary   |
| <input type="checkbox"/> May 7 – 11, 2012 – Dartmouth    |

### Locations:

#### Dartmouth

UAP Local 56 Training Centre  
30 Neptune Cres., Dartmouth, NS

#### Calgary

INTEG Calgary Training Centre  
3231 – 58 Avenue SE Calgary, AB T2C 0B4

#### Edmonton

INTEG Edmonton Training Centre  
2507 – 84<sup>th</sup> Avenue Edmonton, AB T6P 1K1

## 2 Course Cost

- Course Cost - \$1100.00 + Taxes (Alberta-GST/Dartmouth-HST)
- Course Cost for CWA Premium Members - \$1050.00 + Taxes Membership #: \_\_\_\_\_
- Course Cost for Certified W178.2 Inspectors - \$1050.00 + Taxes Registration #: \_\_\_\_\_
- CWA Premium Membership - \$75.00 + GST/HST  
Benefits: Privilege Card, Jobs portal, Networking, Newsletter + CWA Journal, 10% discount on CWB self-study modules and Marks Work Warehouse, HUB Insurance, Event discounts.

Eligible QCC members will receive a 10% discount on approved training full course fees. Only one discount may be applied. Prices are subject to change.

### Cancellation Policy:

*The course cost, less a 25% enrollment charge per person, will be refunded if cancellation is made in writing no less than 5 working days before the course. There will be no refund for cancellation after that date. The CWB has the right to cancel the program 10 working days prior to the date of the course. Full refunds will be made to registered participants if the CWB cancels the program. Participants are eligible for one course transfer as long as notice is given no less than 5 working days before the original course date.*

## 3 Complete the registration form and fax to 905-542-1318 or e-mail to info@cwbgroup.org. Cheques are made payable to the CWB. Contact us early as space is limited.

Company Name \_\_\_\_\_ Co. Code: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Postal Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Method of Payment: PO#: (CWB clients only) \_\_\_\_\_ Cheque # \_\_\_\_\_

VISA  MasterCard # \_\_\_\_\_ Exp. Date: \_\_\_\_\_

Name on Card: \_\_\_\_\_ Signature: \_\_\_\_\_

- All registrants will receive a complimentary Basic CWA Membership. Check this box if you do not wish to receive this membership.