# LOCAL LEAKAGE RATE TESTING

## **ON-LINE or ON-SITE SEMINAR**

This seminar is a very comprehensive on-line or on-site course on Local Leakage Rate Testing, (LLRT), also known as Type B and C Leakage Rate Testing of Valves and Penetrations.



## **Some Key Cost Saving Features:**

- Detailed Examples How to Eliminate Some Type B and C Tests From Program
- Methodologies and Case Studies For Test Interval Extensions
- Criterion and Examples of Determining When As-Found Testing is Required
- How to Simplify and Reduce Venting and Draining Prior to Testing
- Alternative As-Found and As-Left Testing Methods

The seminar is divided into 8 separate video sessions, each viewable at the student's convenience. Each session is provided with a very detailed text book in the form of a PDF Power Point presentation which is heavily annotated with references which are listed in their full form in an accompanying downloadable reference directory.

As a student completes each video session, the Discussion tab in the course player may be used to record questions, comments, and requests for special topics.

After students have completed the seminar, at an agreed upon time and date, a live interactive webinar will be held to reply to all of questions and comments. Site specific issues will be discussed in detail.



## **Testing Reduction Evaluations on Your Plant's Systems**

Testing reductions may often be found in many plant's LLRT programs. Attendees will be asked to transmit information to us on likely candidate pathways in their program prior to the seminar. These will be step by step evaluated as a part of the live interactive session of the seminar.

All student accounts will persist and be available for viewing video sessions, text books and reference documents for long after the class is completed. The provided course material represents a permanent all-inclusive on-line LLRT reference library.

At your option, your contact information may be shared with your piers so that this portal may serve as a virtual Appendix J community after completion of the seminar.

Students may send or call the instructor with questions and/or requests for more info any time after course completion.

## This is a Comprehensive Course That Will Address the Below Topics

## • The Technical and Regulatory Basis for Local Leakage Rate Testing

- Appendix J and Reg Guide 1.163
- NEI 9401 all Revs
- ANS 56.8-1994, 2002 and the new revision 2020
- Plant Program Documents

#### LLRT Test Intervals and Leakage Limits

- Interval Extensions
- Grace Periods
- 0.6 La and Admin Limits

#### As Found and As Left Testing Requirements

- Repairs and Adjustments
- Use of Alternate Methods for As Left Testing

#### • Standard LLRT Technical Methodologies

- Flow Make-Up
- Pressure Decay

#### Special Topics in Local Leakage Rate Testing

- Venting & Draining
- Reverse Direction Testing
- Closure Methods
- Testing Very Small Volume
- Testing Very Large Volumes

#### **LLRT Special Cases**

- Purge Valves
- Electrical and Mechanical Penetrations
- Check Valve Testing
- Airlock Testing

#### **Alternative Methods**

- Reduced Pressure Testing
- Low Pressure Air to High Pressure Water Correlation
- Water to Air Correlations
- **Bubble Testing**

#### **Schedule**

On-line or on-site only classes are being offered in 2021.

## **Continuing Education Units, (CEU)**

Each attendee will receive a Certificate of Completion of this course which will include 2.4 Continuing Education Units. This will qualify for 24 Professional Development Hours, (PDH) needed to fulfil Professional Engineers' continuing education requirements. The development of this course was guided by the requirements specified in ANSI/IACET 2018-1, Standard for Continuing Education and Training.

**Fee:** Please call or e e-mail for flat group rates for on-line or on-site seminars.

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## Instructor

## Jim Glover 🛅



For 19 years, Mr. Glover worked for Exelon as the ILRT and LLRT Appendix J Program Director. During that time, he performed over 80 ILRTs on both BWRs and PWRs. Since then, he has performed an additional 30 ILRTs with Graftel, LLC.

Mr. Glover is currently the Chairman of the ANS 56.8 Standards Committee on containment leakage rate testing. He was a member of the NEI AHAC that wrote the original Appendix J guideline document NEI-9401 Rev 0.

He also developed and sold the ILRT instrumentation system which is currently and has been used at most US nuclear plants since 1994.