



TRI-ICORP LINER INTEGRITY CENTER SHORT COURSE / ACCREDITATION

CERTIFICATION
for the performance of
LINER INTEGRITY SURVEYS (LIS)

**NEW LEAK DETECTION
EQUIPMENT DEMO**

Specialty Training Course Understanding and Performing Liner Integrity Surveys - Includes Opportunity for TRI-ICORP Certification



PART 1: Introduction to LIS

PART 2: LIS Field Training / Equipment Operation

- Monday, March 31, 2008

- Tuesday, April 01, 2008

**Location: TRI/Environmental, Inc.
Geosynthetics Services
9063 Bee Caves Road
Austin, TX 78733**

What's New in Construction Quality Control & Quality Assurance?

Construction quality assurance (CQA) and construction quality control (CQC) procedures are widely recognized as important factors that can directly lead to not only improved construction quality but also to improved operational performance of containment installations. Recent technology developments and the need to ensure improved constructive quality in critical containment installations has caused the industry to re-think the historical paradigm of what was previously conducted as adequate CQA. Part of this re-thinking of the CQA processes has led to the realization that entire installation needs to be addressed in the CQA process – evaluating only the constructed quality of field seams failed to adequately address the entire field installation and construction process. This realization led to the encouragement and rapid development of Liner Integrity Surveys (LIS) that more comprehensively look for construction related defects or leaks in the installed geomembrane where by they can be detected and located for repair. Numerous methods of using electrical current that follows moisture paths through the holes (defects) or sparks that cross voids are available for conducting LIS. This is a natural, and we believe necessary, opportunity for service growth among the many CQA firms practicing in the waste management construction industry.

This 3-part accreditation has been specifically targeted to those persons who have a desire to perform successful LIS and require a thorough understanding of the proper procedures for this service. The course is intended to assist those who are preparing to include LIS to their core business, or review results of LIS for regulatory or client approval.

Those who will benefit from participating include: Specifying/Certifying Engineers; Construction/Quality Assurance Project Managers; Facility Owners; Installers/Contractors; Third Party Construction Inspectors; and, Regulators.

This course will be presented in two parts. Part 1: the classroom-only session will respond to all those interested in understanding LIS theory, service, vendor qualifications, limitations of the technology, etc. Part 2: includes the field training sessions, which together with the classroom form the first requirements for LIS certification and will earn the participating student full knowledge of the technology and provide hands-on field training with relevant equipment in preparation for eventual certification. Collectively, a broad based understanding of the multiple technologies and equipment options used in conducting LIS will be provided.

Specific to Part 2 field training will be the introduction to and training with specific equipment manufactured specifically for LIS. The relatively high cost of this equipment has been an historical challenge to many potential users. However, the newer equipment to be shown may present an alternative to this economic barrier.

The final third part of the certification for LIS will be accomplished with continued training on-site at the student's first commercial job for LIS. This on-site training will consist of the field instructor assisting the student during the survey and reviewing all generated test results for that job. Emphasis will be given to establishing a student who understands the rationale and standard operating procedures for conducting liner integrity surveys, documentation of leak indications and preparation of reports. Included in this third component of full certification will be an ongoing effort to keep the student updated regarding technology and industry field findings.

AGENDA

LIS - SHORT COURSE OUTLINE

PART 1: Classroom - Monday, March 31, 2008

8:00-8:15 am	Welcome
8:15-8:30	LIS Accreditation System
8:30-9:30	Why Liner Integrity Surveys? Introduction and LIS History and Statistics
9:30-10:30	Theory, Boundary Conditions
10:30-10:45	Break
10:45-11:45	Designing Facilities for LIS
11:45-1:00	LUNCH
1:00-2:15	Field Procedures - for pond, soil, uncovered, in-situ; ASTM procedure review; Calibration
2:15-2:45	Review of Conductive Geomembranes, GCLs and Geotextiles
2:45-3:15	Technology Limitations; Examples
3:15-3:30	Break
3:30-4:15	Guest Lecturer: TBA
4:15-4:45	Case Histories / Questions / Answers
4:45-5:00	Field Coordination
5:00-6:00	Laboratory Tour: TRI Geosynthetic Services
6:00-8:00 pm	<i>Tex-Mex Dinner (provided)</i>

PART 2: Field Training - Tuesday, April 01, 2008

8:30-10:30 am	CLASS FIELD TRAINING (water-covered, soil-covered and exposed liner test installations); Questions/Answers
10:30-12:00 pm	HANDS-ON GROUP FIELD TRAINING
12:00-1:00 pm	LUNCH
1:00-4:30 pm	HANDS-ON GROUP FIELD TRAINING (continued)
4:30-5:00 pm	Closing CLASS Session (Questions/Answers)

Short Course Tuition for LIS Training Event
For registrations before Thursday, March 20, 2008:

Part 1 (Classroom), March 31 st , 1 registrant per company ^{1,2}	\$450.00/person
Part 1 (Classroom), March 31 st , 2 registrants per company ^{1,2}	\$425.00/person
Part 1 (Classroom), March 31 st , 3+ registrants per company ^{1,2}	\$400.00/person
Part 1 (Classroom), March 31 st , government employee rate ^{1,2}	\$150.00/person
Part 1 & 2 (w/field training), March 31-April 1, registrant per company ²	\$875.00/person
Part 1 & 2 (w/field training), March 31-April 1, 2 registrants per company ²	\$825.00/person
Part 1 & 2 (w/field training), March 31-April 1, 3 + registrants per company ²	\$775.00/person
Part 1 & 2 (w/field training), March 31-April 1, government employee rate ²	\$350.00/person

1. Note: Classroom Tuition ONLY does not include Field Training.

2.

Tuition includes class handbook including reference materials, dinner March 31, break refreshments and lunches.

Where to stay for the course: The Mountain Star Lodge - 3573 RR 620, South, Austin, TX 78738. phone: 888 263 2010

REGISTRATION FORM

Course Registration Fees (please circle selection):

March 31, Intro only, 1 registrant per company	\$450.00/person
March 31, Intro only, 2 registrants per company	\$425.00/person
March 31, Intro only, 3 + registrants per company	\$400.00/person
March 31, Intro only, gov't employee	\$150.00/person
Mar. 31 and Apr. 01, both days, 1 registrant per company	\$875.00/person
Mar. 31 and Apr. 01, both days, 2 registrants per company	\$825.00/person
Mar. 31 and Apr. 01, both days, 3 + registrants per company	\$775.00/person
Mar. 31 and Apr. 01, both days, gov't employee	\$350.00/person

Registrations must be received by 5:00 pm CST, Friday, March 20, 2008 - \$50.00 /person late fee thereafter. Fee includes course notes and handouts, dinner the evening of March 31st, lunch and AM & PM breaks each day. \$50.00 cancellation fee for refunds requested before March 20th, 2008 -- no refund thereafter. Course notes are NOT sold separately.

Method of Payment: Payment may be made by check, money order, American Express, Visa or MasterCard.

Check Money Order Purchase Order

Make check or purchase order payable to TRI/Environmental, Inc., and mail to TRI, 9063 Bee Caves Rd., Austin, Texas 78733.

Credit Card: American Express Visa MasterCard
 Credit Card # _____ Expiration Date:

Please direct questions to Ms. Melissa Hunter or Mr. Sam Allen, phone: (800) 880-8378, fax: 512) 263 2558.

PLEASE TYPE OR PRINT CAREFULLY

Name	
Position / Company (Agency)	
Address	
City	
State	
Zip	
phone / fax number	
e-mail	
Notes:	
amount paid (\$'s)	

Please Return Registration and Payment Via Mail or Fax to: **TRI**
ATTN: Chris Perez
9063 Bee Caves Road
Austin, Texas 78733
Fax Number: (512) 263-2558