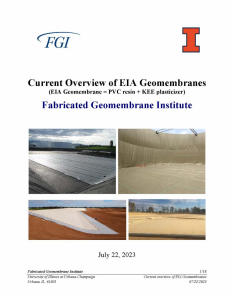
FGI Newsletter - Summer 2023

FGI Creates New EIA Geomembrane Guideline

The Fabricated Geomembrane Institute has created a new guideline titled Current Overview of EIA Geomembranes (EIA Geomembrane = PVC resin + KEE plasticizer). This guideline provides an overview of reinforced and unreinforced EIA (EIA=PVC resin + KEE plasticizer) geomembranes. The base polymer for EIA geomembranes is polyvinyl chloride (PVC). This overview will provide content to educate engineers, regulators, owners, and operators about the strengths, weaknesses, and appropriate applications of EIA geomembranes.



Download EIA Geomembrane Guideline

Project Spotlight: Power Station Demineralized Water Tank Liner Replacement

Member Companies: Layfield and Seaman Corporation

Size of Project/Ft^2 of Material: 139,000 gallons (526 kiloliters) requiring a 4,135 ft^2 (375 m^2) of 8228 XR-3 (fully factory fabricated) liner

Brief Project Description: Demineralized and deionized water is required for the high-pressure boiler feed water used in steam generation at plants such as this Power Station located in Australia, which is capable of producing 630MW of electricity. Impurities in the feed water can initiate detrimental corrosion in the boiler, potentially leading to catastrophic failure. The feed water is treated on site with two processes consisting of cartridge filtration, reverse osmosis, membrane degasification, and electrodeionisation. After treatment, the feed water needs to be stored and protected from contamination in a large capacity tank when it is not being used in the power generation process.

After 14 years of service the demineralized water tank in question was showing signs of deterioration and the Power Station made the decision to take the tank offline to remediate the steel tank structure and replace the internal liner system. This was quite a complex operation and involved:

- Removal of several structural steel panels from the tank for access.
- Removal and storage of approx. 60,000 1” (25mm) nylon floating balls from inside the tank.
- Removal of the existing butyl rubber liner and suspended roof.
- Rust removal and restoration of the steel tank panels.
- Installation of fully fabricated geomembrane tank liner.
- Installation of fully fabricated geomembrane roof suspended from structural roof
- On site welding of roof liner to the tank liner walls at top of tank.
- Re-installation of the floating nylon balls used to (theoretically) reduce the diffusion of gases (O_2 and CO_2; harmful for water-steam cycle) into the stored water.

For Complete Project Spotlight, including Material Selection Criteria and Lessons Learned, please click HERE.

View All Project

Spotlights

Women in Geosynthetics (WIG) Unveils New Website

The Women in Geosynthetics (WIG) Group has created a new and exciting website to feature all of its latest information. The new website features a member directory, member spotlight, meeting agendas, minutes, and more. Be sure to check it out.

Contact **Jordan Wiechmann** for more info on WIG, to nominate someone for the Member Spotlight, or to have your contact information included in the Member Directory.

Visit WIG Website

FGI Webinar: Geosynthetics Case Histories

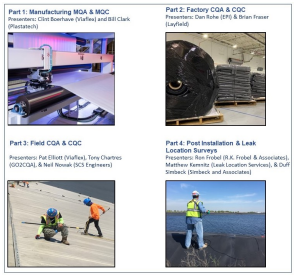
Free to Industry Professionals & Students
1.0 PDH

Presenters:
Brad DeArment
Patrick Elliott
Douglas Hilts, P.E.

August 15, 2023 at 11 am CDT (Live)
August 16, 2023 at Noon AEST (Pre-recorded - Australia)
August 16, 2023 at Noon CAT (Pre-recorded - South Africa)
August 16, 2023 at 5 p.m. JST (Pre-recorded - Japan)

This webinar will present three case histories involving geosynthetics. Pat Elliott will discuss a case history on rehabilitating Chambers Reservoir from a failed earthen reservoir using a reinforced geomembrane. Doug Hilts will discuss the analysis and replacement of a 40+ year old water reservoir geomembrane floating cover, baffle, and liner system. Finally, Brad DeArment will discuss long term geosynthetic solutions to post earthen closure excessive landfill leachate management.

Register for Live Webinar



FGI Offering Online CQA Course & Certification Exam Monthly

The FGI is now offering its CQA Course & Certification Exam Program every month as an On-Demand Online Course. The four educational parts will be available to view at your convenience during the first three weeks of each month and the Certification Exam will be available to take any time during the last week of each month.

Part 1: Manufacturing MQA & MQC
Part 2: Factory CQA & CQC
Part 3: Field CQA & CQC
Part 4: Post Installation Maintenance & Leak Location
Cost: $500 (includes all 4 course sessions and online certification exam)

[August 2023 Registration: On-Demand CQA Course & Certification Exam]
[September 2023 Registration: On-Demand CQA Course & Certification Exam]
[October 2023 Registration: On-Demand CQA Course & Certification Exam]

The $500 registration fee includes the 4 course sessions and one sitting for the online certification exam that covers Parts 1, 2, and 3. A University of Illinois - FGI CQA Certificate will be issued to those who successfully pass the online certification exam. For those who do not pass the exam on the first attempt, there is a $100 fee each time you register to re-take the online exam. The certification exam covers Parts 1, 2, and 3 (Part 4 is not on the exam).

FGI's Website - #1 Resource for Fabricated Flexible Geosynthetics

- Online PDH Credit Program
- Installation Details & Drawings
- Audio and Video Podcast Series
- Geo-Engineering Pop Quizzes
- Pond Leakage Calculator
- Panel Weight Calculator
- Webinar Library
- Project Spotlights
- Spanish/Portuguese Webinar Library
- Member Directory
- Latest Specifications & Guidelines
- Material and Equipment Guides
- Videos of ASTM Factory & Field Test Methods
- Technical Papers & Journal Articles
- Industry News and Events
- Photo and Video Gallery

Visit FGI Website

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