FGI Newsletter - Winter 2024

FGI Creates Factory Fabrication Guideline

The FGI has created a Factory Fabrication Guideline that includes a minimum quality control (QC) system for factory fabrication, testing, packaging, handling, and shipping of flexible geomembrane panels. The guideline provides an overview of factory fabrication, geomembrane polymer technology, quality control of manufactured materials, factory seam testing, inspections, repairs, storage, transportation, handling, and deployment of geomembrane panels. This guideline is recommended for all manufacturers, fabricators, installers, and factory inspection personnel of flexible geosynthetics.

Download FGI Guideline

New FGI Short Course on Subgrade Preparation & Use of GCLs with Flexible Geomembranes

Presenters:
Timothy D. Stark, Ph.D., P.E. (Part 1)
Marat Goldenberg, P.E. (Part 2)

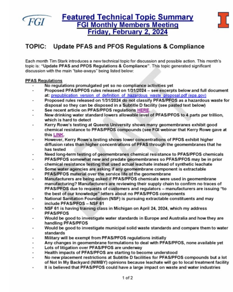
3.0 PDH, Free

This online short course will focus on subgrade preparation for installation of flexible geomembranes. In addition, the course will focus on the use of geosynthetic clay liners (GCLs) with flexible geomembranes to create a composite barrier system. This course will describe the requirements for subgrade preparation before a flexible geomembrane is installed, such as maximum rock size allowed, presence of water, and smooth rolling the surface before geomembrane installation. This course will also present information on the use of GCLs with flexible geomembranes instead of or in addition to a compacted soil liner.

Part 1: Subgrade Preparation - Tuesday, April 9, 2024 from 12-1:30 pm CDT
Part 2: Use of GCLs with Flexible Geomembranes - Wednesday, April 10, 2024 from 12-1:30 pm CDT

Register for Short Course

FGI Featured Technical Topics



Featured Technical Topic Summary
FGI Monthly Members Meeting
Friday, February 2, 2024

TOPIC: Update PFAS and PFOS Regulations & Compliance

Each month Tim Stark introduces a new technical topic for discussion and possible action. This month's topic is: "**Update PFAS and PFOS Regulations & Compliance**". This topic generated significant discussion with the main "take-aways" being listed below:

PFAS Regulations

- No regulations promulgated yet so no compliance activities yet
- Proposed PFAS/PFOS rules released on 1/31/2024 – see excerpts below and full document at: prepublication_version_of_definition_of_hazardous_waste_proposal.pdf (epa.gov)
- Proposed rules released on 1/31/2024 do not classify PFAS/PFOS as a hazardous waste for disposal so they can be disposed in a Subtitle D facility (see pasted text below)
- See recent article on PFAS/PFOS regulations HERE.
- New drinking water standard lowers allowable level of PFAS/PFOS to 4 parts per trillion, which is hard to detect
- Kerry Rowe's testing at Queens University shows many geomembranes exhibit good chemical resistance to PFAS/PFOS compounds (see FGI webinar that Kerry Rowe gave at this LINK.
- However, Kerry Rowe's testing shows lower concentrations of PFOS exhibit higher diffusion rates than higher concentrations of PFAS through the geomembranes that he has tested
- Need long-term testing of geomembranes chemical resistance to PFAS/PFOS chemicals
- PFAS/PFOS somewhat new and predate geomembranes so PFAS/PFOS may be in prior chemical resistance testing that used actual leachate instead of synthetic leachate
- Some water agencies are asking if any geomembrane component is extractable PFAS/PFOS material over the service life of the geomembrane
- Manufacturers are being asked if PFAS/PFOS chemicals were used in geomembrane manufacturing? Manufacturers are reviewing their supply chain to confirm no traces of PFAS/PFOS due to requests of customers and regulators – manufacturers are issuing "to the best of our knowledge" letters about no PFAS/PFOS components
- National Sanitation Foundation (NSF) is pursuing extractable constituents and may include PFAS/PFOS – NSF 61
- NSF 61 is having training class in Michigan on April 24, 2024, which my address PFAS/PFOS
- Would be good to investigate water standards in Europe and Australia and how they are handling PFAS/PFOS
- Would be good to investigate municipal solid waste standards and compare them to water standards
- Military will be exempt from PFAS/PFOS regulations initially
- Any changes in geomembrane formulations to deal with PFAS/PFOS, none available yet
- Lots of litigation over PFAS/PFOS are underway
- Health impacts of PFAS/PFOS are starting to become understood
- No new placement restrictions at Subtitle D facilities for PFAS/PFOS compounds but a lot of Not In My Backyard (NIMBY) opinions because leachate will go to local treatment facility
- It is believed that PFAS/PFOS could have a large impact on waste and water industries

1 of 2

Each month during the FGI Membership Meeting, Dr. Timothy D. Stark, Technical Director of the FGI and Professor of Civil and Environmental Engineering at the University of Illinois, introduces a new technical topic for discussion and possible action. The main points of these discussions can be found on the FGI Website. Recent Featured Technical Topics include:

- PFAS and PFOS Regulations and Compliance
- Lining/Floating Cover Systems for Critical and Non-Critical Applications
- Discussion of Subtitle D
- Geomembranes and Geosynthetics in Energy Applications
- Electrical Leak Location Surveys with Flexible Geomembranes

Featured Technical Topics

University of Illinois - FGI Online CQA Course & Certification

If you missed the live offering of the FGI's Online Course and Certification Exam on Manufacturing, Fabrication, & Installation for QA/QC for Geosynthetics, we have you covered. All four parts of the course were recorded and are now available to participate at your convenience in an on-demand course format. The on-demand course will be offered monthly. The four course sessions will be available the first three weeks of each month, with the exam available to take online during the last week of the month. The four course sessions are: Part 1 - Manufacturing MQC & MQA, Part 2 -Factory CQC & CQA, Part 3 - Field CQC & CQA, and Part 4 - Post Installation Maintenance & Leak Location.

Cost $500 (includes four course session and online exam)
$300 (includes four course sessions only, used code: NOEXAM)
Regulators/government employees, used code REGULATOR

Register for March 2024 On-Demand CQA Course

Next FGI Webinar: The Geosynthetics Discipline and its Interaction with Geotechnical Engineering

March 5, 2024 at 11 am CST (Live)
March 6, 2024 at Noon AEST (Pre-recorded - Australia)
March 6, 2024 at Noon CAT (Pre-recorded - South Africa)
March 6, 2024 at 5 p.m. JST (Pre-recorded - Japan)

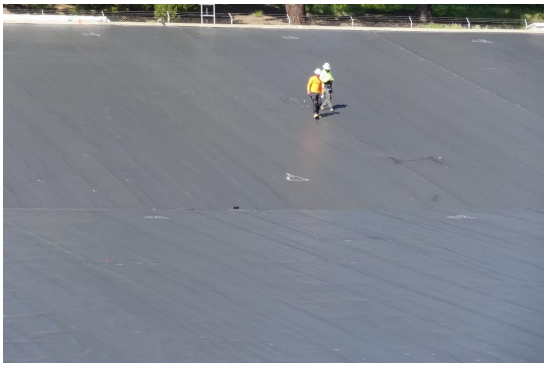
In this webinar, Dr. Giroud will describe how geosynthetics have become the most important innovation in geotechnical engineering in the second half of the 20th century. In particular, Dr. Giroud will focus on the geosynthetics discipline and its interaction with geotechnical engineering. He will illustrate how geosynthetics have pervaded most branches of geotechnical engineering because of the wide variety of functions that geosynthetics can perform.

Presenter: J.P. Giroud, Ph.D.
Free to Industry Professionals & Students
1.0 PDH

Register for Live

Webinar

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



- Online PDH Credit Program
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Visit FGI Website

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