

Agenda

Presented by Frank Aguirre

The Evolution of the OSSF (On-Site Sewage Facility) Program in Texas, from Primordial Soup to an 800 Pound Gorilla

- How and why the program began
- Its history as a dysfunctional, unwanted child
- The current TCEQ (Texas Commission on Environmental Quality) structure of OSSF rules and enforcement; relationship between TCEQ and Travis County rules
- Who's really in charge and why
- The distinction between prescriptive and performance regulations
- The (under-estimated) role that the septic system plays in property purchase and development/site planning
- Should TCEQ regulations be adhered to?

How the Size, Type and Cost of the Septic System is Determined

- TCEQ setback requirements as limiting factors
 - (Will the water level in the well rise a couple of inches every time the owner flushes the commode?)
- What is a 'site evaluator,' compared to a 'designer,' and what is his role in planning of a septic system?
- How are septic systems SIZED in Texas?
- The water quality treatment line: from nuclear wastes to perfectly pure water (no such thing)
- Residential – the variance quality and maintenance levels from which a homeowner can choose

Types of Septic Systems Approved in Texas and Used, Especially in the South-Central Part of the Great Republic

- Basic components of sewage – hydraulic and organic loadings
 - Universal components of any septic system –
 - from raw sewage to environmentally-helpful moisture
- Passive vs. active, primary treatment vs. secondary systems
- Standard systems – gravel, leaching chambers and gravel-less
- Aerobic treatment units – general structure, how they work, their advantages and disadvantages
- Spray application described; advantages and disadvantages
- Drip irrigation described; advantages and disadvantages
- New gray water rules and how to apply them
- Nutrient reductions

Commercial – the Shocking Cost, Footprint and Long Term Maintenance Requirements

- The technical differences between residential and commercial septic systems
- The two key factors in any commercial septic system that someone must specify and through which they will assume the liability for its proper functioning
- A step-by-step, unpublished method of ENSURING that the final system will work properly
- Metrics of a finely designed system and the chemical, physical and hydraulic measurements that must be recorded
- Monitoring, inspections and repairs

Texas Septic Systems
San Antonio, TX - Friday, May 3, 2019

NON-PROFIT
U.S. POSTAGE PAID
EAU CLAIRE, WI
PERMIT NO. 2016

Halfmoon Education Inc.
PO Box 278
Altoona, WI 54720-0278



Learning Objectives

You'll be able to:

Examine the evolution of the on-site sewage facility program in Texas.

Learn about the sizes, types and costs of septic systems.

Review types of septic systems approved in Texas.

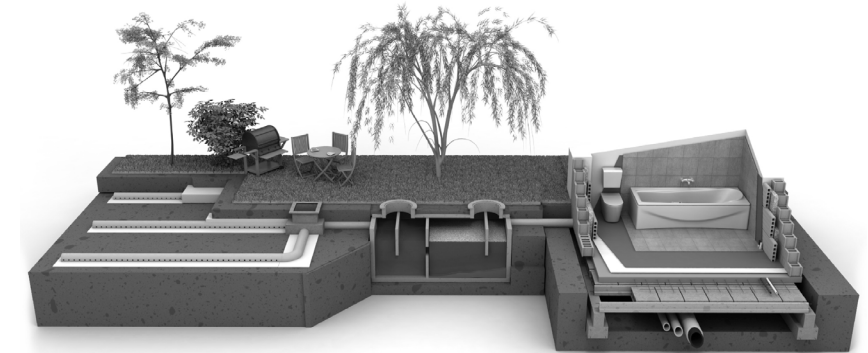
Explore technical differences between residential and commercial septic systems.

Review two key factors that must be specified in any commercial septic system.



Texas Septic Systems

San Antonio, TX - Friday, May 3, 2019



Understand the evolution of the on-site sewage facility program in Texas

Explore the size, type and cost of septic systems

Review types of septic systems approved in Texas

Examine technical differences between residential and commercial septic systems

Review two key factors that must be specified in any commercial septic system

Continuing Education Credits

Professional Engineers

6.5 PDHs

Architects

6.5 HSW CEPHS/CE Hours

6.5 AIA HSW Learning Units

Contractors

Non-Credit Continuing Ed.



HalfMoon Education Inc.
WWW.HALFMOONSEMINARS.ORG



Faculty

Frank Aguirre, President of Frank Aguirre & Associates, Inc. San Antonio
Mr. Aguirre, owner of Septic Systems Express, Septic System Designs Of Texas and Texas Septic Systems Council, has been designing and inspecting septic systems since 1975. During that time, he has served on the board of directors for the National On-site Wastewater Recycling Association (NOWRA), and he has served as president of the Texas On-site Wastewater Association. Mr. Aguirre founded the Alamo On-site Wastewater Association and the Alamo Water & Wastewater Analysts Association. He has designed over 30,000 septic systems and is the only person in the country that has organized and sponsored a national conference specifically on how to design a septic system for a restaurant (high strength wastewater). He has been a licensed sanitarian since 1968. Mr. Aguirre received his bachelor’s degree in Biology and his master’s degree in Educational Psychology. Septic Systems Express designs and inspects septic systems throughout south-central Texas. He is a professional speaker and lives, part-time, in Manhattan.

Here’s what past attendees have to say about the program and presenter Frank Aguirre:

- “Excellent seminar!” – *Civil Engineer*
- “Frank was very good in both content and delivery.” – *Surveyor and Engineer*
- “Best instructor to date.” – *Civil Engineer*
- “Liked examples and delivery...not too technical.” – *Architect*

Seminar Information

Norris Conference Center
618 NW Loop 410 Suite 207
San Antonio, TX 78216
(210) 738-0040

Tuition

\$289 for individual registration
\$269 for three or more registrations.

Each registration includes a complimentary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the self-study package. You may also send another person to take your place.

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 PDHs to professional engineers and 6.5 HSW CEPHs/continuing education hours to architects in Texas. Educators and courses are not subject to pre-approval in Texas.

The American Institute of Architects has approved this event for 6.5 HSW Learning Units (Sponsor No. J885). Only full attendance can be reported to the AIA/CES.

Engineers and architects seeking continuing education credit in other states will be able to claim the hours earned at this seminar, in most cases. Refer to specific state rules to determine eligibility.

This seminar offers a non-credit continuing education opportunity to contractors. It has not been approved by any state contractor licensing entity for continuing education approval.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Additional Learning

Webinar Series

Foundation Damage and Repair

- **Structure Loads, Soil Mechanics, Bearing Capacity and Geo-Environmental Hazards**
Thurs., March 28, 2019, 11:00 AM - 12:30 PM CDT
- **Foundation-Wall Design and Construction**
Thurs., March 28, 2019, 1:00 - 2:30 PM CDT
- **Assessment of Foundation-Slab Damage & Repair Alternative**
Fri., March 29, 2019, 11:00 AM - 12:30 PM CDT
- **Assessment of Foundation-Retaining Wall Damage & Repair Alternatives**
Fri., March 29, 2019, 1:00 - 2:30 PM CDT

HEC-RAS Webinar Series

- **Hydraulic Principles and Applications**
Tues., April 2, 2019, 11:00 AM - 1:00 PM CDT
- **Working with the HEC-RAS User Interface**
Tues., April 2, 2019, 1:30 - 3:00 PM CDT
- **Water Surface Profiling**
Wed., April 3, 2019, 11:00 AM - 1:00 PM CDT
- **Steady Flow Surface Profile Demonstrations**
Wed., April 3, 2019, 1:30 - 3:30 PM CDT

Wood Construction

- **Design Specifications, Building Codes and Design Values**
Thurs., April 4, 2019, 11:00 AM - 12:30 PM CDT
- **Structural Sawn Lumber, Composite Lumber and Laminated Timber**
Thurs., April 4, 2019, 1:00 - 2:30 PM CDT
- **Prefabricated Wood I-Joists Trusses**
Fri., April 5, 2019, 11:00 AM - 12:30 PM CDT
- **Connectors and Fire Protection Design**
Fri., April 5, 2019, 1:00 - 2:30 PM CDT

For more information visit:
www.halfmoonseminars.org/webinars/

Can’t Attend? Order the Manual and Audio from the Live Seminar as a Self-Study Package!
Audio recordings of this seminar are available for purchase starting at \$269. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Registration

Texas Septic Systems
San Antonio, TX - Friday, May 3, 2019

How to Register		Registrant Information
Online: www.halfmoonseminars.org		Name: _____
		Company/Firm: _____
		Address: _____
		City: _____ State: _____ Zip _____
Phone: 715-835-5900		Occupation: _____
		Email: _____
		Phone: _____
Fax: 715-835-6066		Additional Registrants:
Code:		Name: _____
		Occupation: _____
		Email: _____
		Phone: _____
		Name: _____
		Occupation: _____
		Email: _____
		Phone: _____
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		
Complete the entire form. Attach duplicates if necessary.		Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred.
		() I need special accommodations. Please contact me.

Tuition

- () **I will be attending the live seminar.** Single Registrant - **\$289.00**. Three or more registrants from the same company registering at the same time - **\$269.00** each.
- () **I am not attending.** Please send me the self-study package:
- ☐ Downloadable MP3 Audio/PDF Manual for **\$269.00**.
 - ☐ CD/Manual Package for **\$289.00**.
- (Please allow four weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

Credit Card: *Mastercard, Visa, American Express, or Discover*

Credit Card Number: _____

Expiration Date: _____ CVV2 Code: _____

Cardholder Name: _____

Billing Address: _____

City: _____ State: _____ Zip: _____

Signature: _____

Email: _____