



Halifax District Florida Environmental Health Association-Provider # SP0011
5101 Ortega Boulevard, Jacksonville, FL 32210-8305
ANNUAL SEPTIC TRAINING COURSE



Course Location: Volusia County Health Dept. Conference Room 516-C,
1845 Holsonback Dr., Daytona Beach Fl. 32117

Course: Design, Permitting, and System Installation Wednesday, August 27, 2008

- 7:30 – 8:25 Registration and Refreshments**
- 8:25 - 8:30 Welcome!**
Albert Royster, Halifax District FEHA/Volusia CHD
- 8:30 - 9:30 An Overview of Commercial Sewage Waste Generators, Operating Permits and Grease Interceptors**
Bart Harriss, R.S. DOH *(1.0 hour CEU)*
- 9:30 - 10:00 Cluster Systems**
Greg Mayfield, Southern Water Solutions *(0.50 hour CEU)*
- 10:00-10:15 Break - Refreshments**
- 10:15 - 11:00 Water Softener Effects on Onsite Wastewater Systems**
Greg Mayfield, Southern Water Solutions *(0.75 hour CEU)*
- 11:00 - 11:30 Flow Measurement**
John Van Nostrand, AMJ Equipment (ISCO rep) *(0.50 hour CEU)*
- 11:30 - 12:00 Post Construction Site Evaluation**
Albert Royster *(0.50 hour CEU)*
- 12:00 - 1:00 Lunch Provided**
- 1:00 - 1:15 Soils**
Alfred Jones, USDA *(0.25 hour CEU)*
- 1:15 - 2:00 Wastewater Treatment Processes in Soils- Biomat & Septic System Spoil Material Issues**
Sonia Cruz, DOH *(0.75 hour CEU)* *This talk will also include addressing septic problems in local areas.*
- 2:00 - 3:00 Wastewater Treatment Management Guidelines: USEPA's Role in Promoting the Management of Onsite and Clustered Wastewater Systems**
Joyce Hudson, Environmental Engineer, USEPA *(1.0 CEU)*
- 3:00 - 3:15 Break -Refreshments**
- 3:15 - 4:00 Wastewater and Smart Growth**
Kevin Sherman *(0.75 hour CEU)*
- 4:00 End of Course – Course Evaluations and Awarding of Attendance Certificates**

***YOU MUST SIGN IN WITH A VALID PHOTO I.D. FOR BOTH THE MORNING AND AFTERNOON SESSIONS TO RECEIVE YOUR CERTIFICATE AND CREDIT FOR 6 CEUs TOWARDS LICENSE RENEWAL.**

COURSE APPROVED BY FLORIDA DEPARTMENT OF HEALTH for registered septic tank contractors, Registered Sanitarians, Certified Environmental Health Professionals to earn six contact hours for attending the class.

Halifax District Florida Environmental Health Association-Provider # SP0011
5101 Ortega Boulevard, Jacksonville, FL 32210-8305
ANNUAL SEPTIC TRAINING COURSE

Course Location: Volusia County Health Dept. Conference Room 516-C,
1845 Holsonback Dr., Daytona Beach Fl. 32117

**Course: Improving Wastewater Treatment
Thursday, August 28, 2008**

- 7:30 - 8:25** **Registration and Refreshments**
- 8:25 - 8:30** **Welcome!**
Albert Royster, Halifax District FEHA/Volusia CHD
- 8:30 - 9:15** **System Management Options**
Bob Rubin (*0.75 hour CEU*)
- 9:15 - 10:00** **Responsible Management Entities**
Albert Robert Rubin (*0.75 hour CEU*)
- 10:00- 10:15** **Break - Refreshments**
- 10:15- 10:30** **Grease Trap Waste into by-product derived fuels**
Bob Rubin (*0.25 hour CEU*)
- 10:30- 11:00** **Advanced Technology to Improve Effluent Quality**
Bob Rubin (*0.50 hour CEU*)
- 11:00- 11:15** **Update on Endocrine Disruptors**
Albert Royster (*0.25 hour CEU*)
- 11:15- 12:00** **Adopting a utility management program**
Bob Rubin and Albert Royster (*0.75 hour CEU*)
- 12:00: 1:00** **Lunch Provided**
- 1:00- 3:00** **Enhanced Nutrient Reduction using an external carbon source**
Ron Suchecki, Hoot Aerobic Systems (*2.0 hour CEU*)
- 3:00- 3:15** **Break -Refreshments**
- 3:15- 4:00** **Aerobic Treatment including Treatment levels of PBTS and ATU's**
Ron Suchecki, Hoot Systems (*0.75 hour CEU*)
- 4:00** **End of Course –Course Evaluations and Awarding of Attendance Certificates**

*YOU MUST SIGN IN WITH A VALID PHOTO I.D. FOR BOTH THE MORNING AND AFTERNOON SESSIONS TO RECEIVE YOUR CERTIFICATE AND CREDIT FOR 6 CEUs TOWARDS LICENSE RENEWAL.

COURSE APPROVED BY FLORIDA DEPARTMENT OF HEALTH for registered septic tank contractors, Registered Sanitarians, Certified Environmental Health Professionals to earn six contact hours for attending the class.

Syllabus for August 27, 2008 Halifax FEHA Registered Level Advance OSTDS Education Course

1. An Overview of Commercial Sewage Waste Generators, Operating Permits and Grease Interceptors

Objective: To give an understanding of the functions, details and differences of commercial sewage waste facilities, operating permits, grease interceptors including the aspects of permitting, construction, operation and management.

- Managed Systems – purpose for management of systems
- Statistics – graphs and statistics of managed systems in Florida and US
- Operating Permits – requirements and types of operating permits
- IM Operating Permits – differences and comparisons
- Commercial Sewage Waste
- Grease Interceptors – requirements and design
Facilities Business Operation – Food Service, Group Care, and Other Miscellaneous Businesses that May Generate Commercial Sewage Waste and Require Operating Permit or Grease Interceptor **(1 hour)**

2. **Cluster Wastewater Systems and Septic Utility Management:** The speaker will address decentralized/ clustered systems as we face growth, environmental and public health issues in Florida. Distributed wastewater systems have been touted as an alternative solution for wastewater service districts, utilities, builders, and developers. This segment covers the need for these types of systems and the barriers that keep these systems from being used. Issues that will be discussed concern design, permitting, and management of distributed wastewater systems. **(1/2 hour)**
3. **Water Softener Effects on Onsite Wastewater Systems (3/4 hour)** The backwash brine from home water softeners has been shown to inhibit the performance of onsite wastewater treatment systems. May wastewater treatment system manufacturers void the system warranty if water softener backwash is introduced to the wastewater stream? The high salt concentration in the backwash brine is detrimental to anaerobic digestion, can cause salt-water stratification in tanks, and is detrimental to the organisms and processes.
4. **Flow Measurement** The topic of open channel flow measurement will include: The primary device, what is it and how is it selected. Flow metering technology for measuring with a primary device as well as installation considerations and accuracy will be addressed. How flow can be measured without a primary device will be discussed. **(1/2 hour)**
5. **Post Construction Site Evaluation** A post inspection after the installation can make a star out of the contractor. What you can do during the inspection to validate system performance can lead to a positive relationship with the system user. A Point of Sale Inspection, a compliance Inspection, consideration of upgrading failing systems, identifying operational problems and getting them repaired prior to the sale or transfer of a property will be discussed. A hydraulic flow test, inspection of the tank water level, and structural comments are part of a point of sale inspection. Benefits of public perception with the onsite industry will involve the introducing of a model training program being developed for the businesses, realtors, system users, and septic industry professionals. The program will focus on key topics for training staff and managers about FOG Management, Flow Measurement, Proper Onsite System Management tips. Water Conservation will be stressed in the talk. **(1/2 hour)**
6. **Soils** The presentation will focus on hydric soil indicators (particularly stripping & stripped matrix), and how to document a seasonal high water table in a natural soil. **(1/4 hour)**
7. **Wastewater Treatment Processes in Soils- Biomat & Septic System Spoil Material Issues** The topic presents an overview of wastewater treatment in soils associated with the formation of the biomat. It details the process of biomat formation, composition, and function as it relates to effluent treatment, soil infiltrative rate and hydraulic loading. It provides an explanation into prevention of hydraulic overload and the consequences that result in system failures. The discussion will define spoil material and treatment requirements. It will direct inspectors and contractors on handling and disposal of spoil material and public health concerns. It will address offsite stockpiles and the management/disposal of spoil materials to prevent sanitary nuisances, protect groundwater and human exposure to pathogens. **(3/4 hour)**

***YOU MUST SIGN IN WITH A VALID PHOTO I.D. FOR BOTH THE MORNING AND AFTERNOON SESSIONS TO RECEIVE YOUR CERTIFICATE AND CREDIT FOR 6 CEUs TOWARDS LICENSE RENEWAL.**

COURSE APPROVED BY FLORIDA DEPARTMENT OF HEALTH for registered septic tank contractors, Registered Sanitarians, Certified Environmental Health Professionals to earn six contact hours for attending the class.

Halifax District Florida Environmental Health Association-Provider # SP0011
5101 Ortega Boulevard, Jacksonville, FL 32210-8305
ANNUAL SEPTIC TRAINING COURSE

8. **Wastewater Treatment Management Guidelines: USEPA's Role in Promoting the Management of Onsite and Clustered Wastewater Systems** Over the past five years, onsite/cluster system performance has become an increasingly important focus for the USEPA Office of Water, due to the thousands of U.S. waters contaminated by bacteria, nitrogen, and phosphorus. Assessing the exact cause of this contamination has been difficult, but clearly onsite/cluster wastewater systems have been implicated in a number of cases across the Nation, typically due to improper siting, installation and maintenance. There is also clear indication that properly managed onsite/cluster systems can effectively and affordably protect human health and water quality. The need for treatment system services is expected to increase significantly as management programs are upgraded or developed across the country. USEPA has developed a framework for managing onsite/clustered wastewater treatment systems that considers a wide range of wastewater streams, system types, configurations, and receiving environments. **(1 hour)**
9. **Wastewater and Smart Growth** This presentation will provide information on how to best provide service to the owners of onsite systems and to also provide the proper educational materials so the owner can properly maintain his system to prevent premature failure. Implementing an annual inspection program is essential to prolong the life of an onsite system. **(3/4 hour)**

Syllabus for August 28, 2008 Halifax FEHA Registered Level Advance OSTDS Education Course

1. **System Management Options:** An overview of the current EPA models of system management and trends that EPA has implemented as practical management practices will be shared **(3/4 hour)**
2. **Responsible Management Entities:** The Onsite and decentralized solution is a permanent alternative to more centralized systems. This seminar will discuss options to assure sustainable management approaches are utilized at all levels. **(3/4 hour)**
3. **Grease Trap Waste into by-product derived fuels:** Many communities have imposed rules and regulations for FOG management. As FOG is collected, options for treatment are becoming more critical. One option involves conversion of FOG wastes into energy producing materials **(1/4 hour)**
4. **Advanced Technology to improve effluent quality:** Historically, septic tanks have provided the treatment preceding a soil absorption system. Today, advanced aeration wastewater treatment systems are available. These systems are capable of producing high quality treated water. Management programs are essential to assure proper operation of these systems. **(1/2 hour)**
5. **Update on Endocrine Disruptors:** Trace metals noted in a routine sludge analysis may show evidence of endocrine disruptors. Effects of ED on humans and ecology will be shared. **(1/4 hour)**
6. **Adopting a utility management program:** A comprehensive management effort is necessary to assure decentralized systems are viewed as a permanent element of Florida's wastewater management infrastructure. Talk will include flow measurement and FOG Management Program **(3/4 hour)**
7. **Enhanced Nutrient Reduction using an external carbon source:** Participants will be presented slides on the history of onsite wastewater nutrient reduction systems (OWNRS). Topics covered will be the reasons behind the need for OWNRS systems, the history and development of testing Standards, methodology and philosophy of nutrient reduction technology and diagrams of various types of OWNRS. The course will additionally go over in detail the design of OWNRS, quality control procedures, and water quality testing parameters and their interpretation. Special attention will be made to chemically enhanced processes to reduce nitrogen output to the lowest levels possible. **(2 hour)**
8. **Aerobic Treatment including Treatment levels of PBTS and ATUs:** Participants will be presented slides on the regulatory levels of ATUs and PBTS in the State of Florida. Details on the designs of these systems along with foot print, mound height, setback reductions will be discussed. Special attention will be made to the application and approval process for PBTS and the continued monitoring process for verification of performance. **(3/4 hour)**

***YOU MUST SIGN IN WITH A VALID PHOTO I.D. FOR BOTH THE MORNING AND AFTERNOON SESSIONS TO RECEIVE YOUR CERTIFICATE AND CREDIT FOR 6 CEUs TOWARDS LICENSE RENEWAL.**

COURSE APPROVED BY FLORIDA DEPARTMENT OF HEALTH for registered septic tank contractors, Registered Sanitarians, Certified Environmental Health Professionals to earn six contact hours for attending the class.

Qualifications of Instructors for August 27, 2008

Bart Harriss, R.S. is currently employed by the Florida Department of Health, Bureau of Onsite Sewage Programs and works in the Orlando office as an Environmental Health Program Consultant. He has worked for the department for almost 22 years. He began his career working at the Seminole County Health Department as an Environmental Health Specialist then as supervisor of the Onsite Program. After several years in Seminole County, he left for a position with the District Office as a Environmental Health Consultant for the Migrant Farmworker Housing and Field Sanitation Programs. He has been in his present position for the 13 years and duties include; serving as a mediator for complaints and disputes, and program evaluator and training specialist for the Onsite Sewage Program.

In addition he has been a member of FEHA for 20 years and many positions at the District and State Levels of which he has served as District Chairperson and FEHA President. He currently serves on the FEHA board at the state district Level. He graduated from the University of Central Florida in 1984 with a B.S. in the Biological Sciences, is a Certified Environmental Health Professional and Registered Sanitarian.

Greg Mayfield, R.S. from Southern Water Solutions has actively involved serving in a B.A. in Geography and a Masters Certificate in Hydrogeology, both from U.S.F.

Albert Royster is an Environmental Specialist with Volusia County Health Department in Orange City, FL. He is a state licensed water and wastewater treatment plant operator. Albert has a B.A. Degree in Secondary Education: Biology from Warner Southern College in Lake Wales, FL. Albert has given presentations on onsite systems since 1995 and is a member of the Florida Onsite Wastewater Association and the Florida Environmental Health Association. He has been employed with the Department of Health for over 20 years.

John Van Nostrand is the North Florida territory manager for AMJ Engineered solutions. He has been with AMJ for 17 years and has 20 years of experience in the industry. He has a BS in business from the University of Maryland and a BA in business from the University of Phoenix. and was an instrument man in the NAVY. He has field experience in process solutions and compliance issues as they pertain to monitoring in the water and wastewater industry.

Alfred Jones is a soils scientist for NRCS for over 30 years. Mr. Jones has a B.S. Degree in Soil Science from Florida A & M University. 386-328-2908

Dr. Sonia Cruz, Ph.D. is currently an Environmental Health Program Consultant for the Department of Health-Bureau of Onsite Sewage Programs. She has worked in the Onsite Sewage Program since 1991 when she began work as Environmental Health Specialist at the Seminole County Health Department. Previous to that, she had worked as an Associate Professor in Biology at the University of Puerto Rico from 1972-1990. She served as State FEHA Secretary from 1997 to June 2001 and Central District FEHA Secretary from 1997-1998. She is a Certified Environmental Health Professional in Onsite Sewage since 1995, Certified in Food Protection, and Certified Contract Manager for the Bureau of Onsite Sewage Programs. As part of her performance standards in the Onsite Sewage Program, she assisted with the development of the content and procedures associated with the standardization of department employees in the OSTDS program. She evaluated CHD OSTDS staff in the field in accordance with established policy. Among her various duties she investigates complaints, mediates disputes and coordinates all actions with the CHD. She conducts CHD OSTDS program evaluations, provides interpretations of health and environmental statutes and rules and provides technical assistance as requested. She represents the department at administrative hearings and at meetings within the department, with other state agencies and special interest groups. She has participated in the Consortium for Decentralized Wastewater and Training Center Coordinators. She is currently the contract manager of the Florida Onsite Wastewater-Hands on Training Center in Polk City. There she has provided statewide training in the Accelerated Certification Training Program for state employees and Master Septic Tank Contractor training program. She prepared and presented a paper on program evaluations and standardization at the National Symposium on Individual & Small Community Sewage Systems and has various other publications. She is an active team worker in the Onsite Sewage Program and has been directly involved in the evaluation of septic system additives for compliance with state law and rule. She brings forward her expertise in the field in the discussion of "Wastewater Treatment Processes in Soils- Biomat & Septic System Spoil Material Issues".

***YOU MUST SIGN IN WITH A VALID PHOTO I.D. FOR BOTH THE MORNING AND AFTERNOON SESSIONS TO RECEIVE YOUR CERTIFICATE AND CREDIT FOR 6 CEUs TOWARDS LICENSE RENEWAL.**

COURSE APPROVED BY FLORIDA DEPARTMENT OF HEALTH for registered septic tank contractors, Registered Sanitarians, Certified Environmental Health Professionals to earn six contact hours for attending the class.

Halifax District Florida Environmental Health Association-Provider # SP0011
5101 Ortega Boulevard, Jacksonville, FL 32210-8305
ANNUAL SEPTIC TRAINING COURSE

Joyce Hudson is a Senior Environmental Engineer with the USEPA Headquarters Office of Wastewater Management, where she has held various staff and management level positions. Ms. Hudson previously served as leader of the Decentralized Wastewater Team, which provides engineering and technical support to the Office of Wastewater Management. She currently manages USEPA's effort to promote onsite/decentralized wastewater systems, including the development of voluntary management guidelines, technology fact sheets on a variety of municipal wastewater technologies, and a national demonstration program. She is the principal author of USEPA's *Response to Congress the Use of Decentralized Wastewater Systems*, and is implementing a decentralized wastewater treatment program at USEPA. Ms. Hudson has been employed with USEPA for 28 years. She received a Bachelor of Science degree in Civil Engineering from Howard University in Washington, D.C., in 1980 and is a native Washingtonian.

Dr. Kevin Sherman received a B.S. degree in ecology and evolution from the State University of New York at Stony Brook. He also has a B.S. degree in civil engineering from the FAMU/FSU College of Engineering. Kevin has a M.S. in Biology from the University of South Carolina, and a M.P.H. in public health management from the University of South Florida. He also has a Ph.D. in Biological Oceanography from Florida State University.

Dr. Sherman worked with the Florida Environmental Health for 14 years. From 1989 to 1992, he served as administrator of the onsite sewage program for the state. He has been an adjunct professor at the FAMU/FSU College of Engineering. For six years, Dr. Sherman served as Executive Vice President of the Florida Onsite Wastewater Association. He is author or co-author of over 20 publications. He is past president of the Florida Environmental Health Association and the National Onsite Wastewater Recycling Association. He is a Professional Engineer and a Registered Sanitarian.

Qualifications of Instructors for August 28, 2008

Albert Robert Rubin is an Emeritus Professor and formerly the Waste Management Specialist in the Biological and Agricultural Engineering Department at North Carolina State University, Raleigh, N.C. He was a visiting scientist with the United States Environmental Protection Agency, Office of Wastewater Management in Washington, D.C. He is presently employed with McKim and Creed, a consulting engineering company in the Cary, North Carolina office as a Senior Environmental Scientist

Albert Royster is an Environmental Specialist with Volusia County Health Department in Orange City, FL. He is a state licensed water and wastewater treatment plant operator. Albert has a B.A. Degree in Secondary Education: Biology from Warner Southern College in Lake Wales, FL. Albert has given presentations on onsite systems since 1995 and is a member of the Florida Onsite Wastewater Association and the Florida Environmental Health Association. He has been employed with the Department of Health for over 20 years.

Ron Suchecki – is currently employed as the Research Director and General Manager of Hoot Systems, LLC of Lake Charles Louisiana and is a partner in Central Texas Precast of Waco, Texas. Ron received a B.A. in Environmental Studies from Baylor University and is a current graduate student and Master of Science candidate. Ron has worked with the Baylor University Wastewater Research Program since 1992 as a student, researcher and as a client. He serves on their advisory board and is completing his Masters in Environmental Science with a thesis titled "Enhancing Biological Nutrient Reduction". Ron is a seated member of the NOWRA Model Code Committee and recently completed a term on the NOWRA Board of Directors. He now serves as the NOWRA Conference Chair and Web Site Task Force Chair. He has served on the Board of the Texas Onsite Wastewater Association (TOWA) since 1997, including a term as President. Ron is has been appointed by Governor Rick Perry to serve as a Member of the Texas Onsite Wastewater Treatment Research Council, which distributes approximately \$350,000 annually to fund onsite wastewater research. Recently, he was part of the task force at NSF, which developed the new NSF/ANSI Standard 245 a new standard used to test and evaluate the performance of individual onsite nitrogen reduction treatment systems.

1237 Autumn Oaks Circle, China Spring, TX 76633 ron@hootsystems.com 254-498-3015

***YOU MUST SIGN IN WITH A VALID PHOTO I.D. FOR BOTH THE MORNING AND AFTERNOON SESSIONS TO RECEIVE YOUR CERTIFICATE AND CREDIT FOR 6 CEUs TOWARDS LICENSE RENEWAL.**

COURSE APPROVED BY FLORIDA DEPARTMENT OF HEALTH for registered septic tank contractors, Registered Sanitarians, Certified Environmental Health Professionals to earn six contact hours for attending the class.

Halifax District Florida Environmental Health Association-Provider # SP0011
5101 Ortega Boulevard, Jacksonville, FL 32210-8305
ANNUAL SEPTIC TRAINING COURSE

Make check payable to: **“Halifax District, FEHA”**. Mail to: Brian Volkman, Treasurer
Volusia County Health Department/Environmental Health, 2752-B Enterprise Road, Orange City, Fl. 32763 Phone:
386-775-5247. Fax: 386-775-5292

(Detach and mail with fee - PLEASE PRINT CLEARLY)



.....

- August 27, 2008 Advanced Course Fee \$95 or \$120 at the door**
- August 28, 2008 Advanced Course Fee \$95 or \$120 at the door**
- August 27 & 28, 2008 Advanced Course Fee \$190.00 or \$240.00 at the door**

2008 Halifax FEHA Advanced Onsite Sewage Education Course Registration

Please PRINT CLEARLY!

NAME: _____ **Reg. or Cert. #** _____

COMPANY: _____

ADDRESS: _____ **PHONE:** _____

CITY: _____ **STATE:** _____ **ZIP:** _____

***YOU MUST SIGN IN WITH A VALID PHOTO I.D. FOR BOTH THE MORNING AND AFTERNOON SESSIONS TO RECEIVE YOUR CERTIFICATE AND CREDIT FOR 6 CEUs TOWARDS LICENSE RENEWAL.**

COURSE APPROVED BY FLORIDA DEPARTMENT OF HEALTH for registered septic tank contractors, Registered Sanitarians, Certified Environmental Health Professionals to earn six contact hours for attending the class.