

Request to Oregon Environmental Services Advisory Council (OESAC) for approval of the following online, on demand wastewater education classes.

020PDH- 001 Safety Procedures Part One: Electricity 2 Hours- \$80 0.2 CEU Onsite System Installers and Maintenance Providers.

Areas to be covered reference OSHA best practices while concentrating on the ‘YES this CAN happen to you!’ message.

As more properties have outdoor electrical service, and increasing numbers of advanced systems have electrical components, even if your role is just to service the tank - outdoor electricity can be deadly, both man made and from nature. OSHA considers electrocution one of the ‘fatal four’ prime causes of workplace fatalities and serious injury.

- Recognizing the limit of your ability
- Your liability for wrongful actions.
- How to be 360° Aware and anticipate electrical hazards
- Site specific features
- Overhead Power lines and buried utilities
- Vehicle electrics
- Static electricity
- Residential property - homeowner wiring
- Pumps, panels and components: best practices
- Lightening awareness
- ARC Flash - the basics
- Best practices for responding to a case of electrocution

2020PDH- 002 Part Two: Common Sense Work site safety to avoid personal injury and liability 2 Hours - \$80 0.2 CEU Onsite System Installers and Maintenance Providers.

Areas to be covered reference OSHA best practices while concentrating on the ‘YES this CAN happen to you!’ message:

- Gasses present in wastewater systems with reference to enclosed/ confined spaces. Positional asphyxia. Don’t be the second victim - how to respond to potential life threatening situations.
- Hazardous / inflammable conditions
- Safe vehicle operation with particular attention to liquid transport vehicles
- Common sense personal hygiene
- Basic First Aid supply kit components
- Line of sight safety for construction and installation
- Basics of trenching and shoring. In 2016: "Trench deaths have more than doubled nationwide since last year - an alarming and unacceptable trend that must be halted," said Dr. David Michaels, assistant secretary of labor for the Occupational Safety and Health Administration. "There is no excuse. These fatalities are completely preventable by complying with OSHA standards that every construction contractor should know."
- Ergonomically safe lifting techniques
- Cell phone use

2020PDH- 004: Dealing with extreme weather events 2 hours \$80 0.2 CEU Onsite System Installers and Maintenance Providers.

As an active participant in programs and presentations of the [OSU Climate Change Outreach Team](#), and in view of severe weather events from recent years, STS providers will need to become aware of and trained for conditions which stress, damage or limit the performance of onsite wastewater systems. This class will review wet weather events, prolonged ice and snow cover, drought and heat periods as well as natural disasters.

2020PDH-005a Blood Born Pathogens and Parasites. - 2 Hours \$80 0.2 CEU Onsite System Installers and Maintenance Providers. DEQ Wastewater.

Safety Procedures: Basic primer on personal safety best practices both as an employer and as a single business owner. UPDATED

Areas to be covered will reference:

- UPDATED CDC Guidelines.
- Understanding the difference between parasitic, bacteria and virus structures
- Vectors for infection and recognition of symptoms.
- UPDATED Disinfection best practices
- PPE guidelines and preventative measures
- Legal obligations and responsibility in the safe handling of human waste.
- Public outreach and communication
- Common sense personal hygiene for contact and clothing

2020PDH-005b Bugs Without Borders - A primer for disease vectors and parasites of emerging concern to wastewater service providers.4 Hours - \$160 0.4 CEU Onsite System Installers and Maintenance Providers. DEQ Wastewater.

1. Vectors for infection are changing, especially emerging infections due to changing climate and weather conditions.
2. Projected climate changes and increased risk to service providers of exposure from insects and parasitic emerging pathogens will be examined.
3. Recognition of symptoms.
4. Areas to be covered will reference OSHA 1926
5. Public outreach and communication
6. Understanding risk

2020PDH-005c Best practices for portable sanitation and onsite installers and service providers in handling 'sharps' and drug paraphernalia 2 hours \$80 - 0.2 CEU Onsite System Installers and Maintenance Providers. DEQ Wastewater.

1. Stop! Think! Look! Refer to your check list!
Do you HAVE written policies and guidelines? If not start here.
2. The object of this class is to be a Primer on personal safety best practices both as an employer and as a single business owner.Areas to be covered will reference: Vectors for infection and recognition of symptoms.
3. First Aid best practices and health care suggestions
4. PPE guidelines and preventative measures
5. Public outreach and communication
6. Understanding risk

2020PDH- 007e Check Lists, Inspections and Disclosure Forms 2 hours \$80 - 0.2 CEU Onsite System Installers and Maintenance Providers.

Service providers routinely do system inspections, both on occupied properties as part of a normal service call, but also on a property that has sat empty for an extended period of time. There are legal and ethical considerations - and development of sound policies and procedure are essential.

Utilizing checklists for all service visits is a best practice to ensure nothing is overlooked.

Creating a Disclosure Statement is good business practice for many reasons.

Recognizing the difference between an inspection and an evaluation will be covered, also best practices for collecting system samples for performance evaluation. This class will expand on previous year's best practices and options for official onsite inspector certification.

2020PDH- 007f. Soils in Oregon and HOW TO USE Google Earth Pro, and USDA NRCS WEB Soil Survey 3 hours \$120 - 0.3 CEU Onsite System Installers and Maintenance Providers.

Paul R. Finnell Sr - retired USDA Natural Resources Conservation Service (NRCS)



In the Class titled Assessing the Site, service providers were introduced to the tools available to them to look at the location beforehand, assessing best access routes, anticipating logistical problems.

This class is both for service providers and installers. Taught by Paul Finnell - past manager of the WebSoil Program at NRCS.

This class will allow attendees to experiment and to review an actual site using:

- * Google Earth's layers and functions.

- * Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information - and invaluable tool for assessment and troubleshooting onsite systems. See <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>

- * [And SoilWeb – an online tool developed by UC Davies](#)

2020PDH- 007h. The Basics: An introduction to wastewater treatment processes and microbiology for package treatment and septage receiving. 2 hours \$80 - 0.2 CEU Onsite System Installers and Maintenance Providers. DEQ Wastewater.

Oliver Grievson - CIWEM

A 2 hour introduction to the absolute basics of how biological wastewater treatment systems and microorganisms operate. This class is both for those at the very start of their careers as well as those who would just like to know more about the hidden world of microbes! We have good health in this country because we train professionals to understand how biology and chemistry make wastewater treatment systems work. Come learn the basics! It's been since 1911 since the US has had a major outbreak of cholera but preventing incidences of water born illness are the central reason environmental professionals strive for excellence in wastewater system design, operation and maintenance. Wastewater practitioners have to start somewhere on their long road to becoming a professional operator.

2020PDH- 008a. Understanding Conventional Systems - TANKS SERVICING, CLEANING AND INSPECTING 2 hours \$80 - 0.2 CEU Onsite System Installers and Maintenance Providers.

How they work, what to look for, in the home, inlets, outlets, tank construction, tank issues, effluent filters, measuring and observations, inspecting the drain field; when to do borings, where, what you may find.

2020PDH- 008b Introduction to history and use of precast concrete tanks: Is it cement or concrete? Why does it even make a difference? 2 hours \$80 - 0.2 CEU Onsite System Installers and Maintenance Providers.

Sam Lines. Concrete Sealants. NPCA

In this class you will learn the difference between cement and concrete and how they are used. A brief history of concrete will be presented showing that concrete is the oldest building material still being used today. The class will also provide the learner with a brief overview of current issues in the industry, including associations, Certifications, and ASTM standards applicable to precast concrete.

2020PDH- 017 Who's in charge - are YOU in charge? What are your responsibilities for installing a precast tank? 3 hours \$80 - 0.3 CEU \$100 Onsite System Installers and Maintenance Providers.

Sam Lines. Concrete Sealants. NPCA

a) Getting organized Reviewing the design, the location, the grade, the layout, the elevation. Is this a new, replace or repair visit? Reviewing the site. Do you see potential problems now and for the future? How easy will it be to service this system? Assessing the site, soils, conditions BEFORE choosing and hiring equipment. Assessing the landscape view - (i.e the problems with slopes and walk out basements, snow plowing sites etc.) Protecting the site and why. Equipment staging for hauling, digging, lifting, leveling. Pipe choices, staging, handling.

b) SAFETY - THINK FIRST! As a service provider you are the responsible person on site. Tank delivery, clearance, trenching, confined space, types of tanks and the various installation guides, leveling and setting the bed.

c) Watertightness, repairing and inspecting risers, filters and inspection ports. Checking for integrity of existing boots, seals and mastics. ASTM standards.

2020PDH- 008d. Understanding Conventional Systems - TREATMENT FIELDS SERVICING, TROUBLE SHOOTING AND INSPECTING 2 hours \$80 - 0.2 CEU Onsite System Installers and Maintenance Providers.

How they work, what to look for, and different media. Inspecting the drain field; when to do borings, where, what you may find. Groundwater issues, surface water discharge and hydrologic flow. Understanding and recognizing local soils.

2020PDH- 008j. Basic Math And System Calculations 101a -2 hours \$80 - 0.2 CEU Onsite System Installers and Maintenance Providers.

Rationale: a competency in basic math is essential to be sure the system is working correctly. Areas to be covered:

- Basic refresher course in understanding calculations for area, volume
- Gallons per cubic foot
- Detention time and displacement
- Pump efficiency
- Event Counters and timed dosing
- Flow rate

2020PDH- 008k. Basic Math And System Calculations 101b -2 hours \$80 - 0.2 CEU Onsite System Installers and Maintenance Providers.

- Soil loading rate
- Calculating field and trench sizing
- Comparing design to 'as built' specs
- Measure twice - pump once! Using basic and digital measuring devices.

2020PDH- 008l: Pumps, panels, switches and floats Onsite System Installers and Maintenance Providers.

To be covered: Local and State requirements, Servicing, inspecting, installing, safety, sizing.

In conjunction with SSPMA [Sump and Sewage Pump Manufacturers Association] a 6 CEU course specifically for septic service providers and installers - Each class (1 CEU) may be taken as a stand alone option. To be covered: Local and State requirements, Servicing, inspecting, installing, safety, sizing.

6 CEU Hours available now at \$240 -(0.6) or 0.1 per individual listings

1. Floats and Alternative Level Sensing / Joe Zimmerman and Jeremy Drinkwine, SJE Rhombus

2. Best Installation Practices For Trouble-free Pump Controls / Mark McCollum, SJE Rhombus

3. Basic Electric Theory Relating to Onsite Septic Control / Mark McCollum, SJE Rhombus

4. Troubleshooting Pumps, Panels and Switches with Digital Multimeters / Tom Stephan, Xylem

5. Understanding Pumps and Common Pumping Issues / Deron Oberkorn, Zoeller

6. Sizing Guidelines for Sump, Sewage and Grinder Pumps / Deron Oberkorn, Zoeller

2020PDH- 028 Shoulda, Woulda, Coulda: Risk management, preparedness and work place policies 2 hours \$80 - 0.2 CEU Onsite System Installers and Maintenance Providers.

In this course we will present scenarios that you might recognize as having happened to you, or someone you know - or are likely events you will most likely have to be prepared for in your business life. In each case we ask you to follow the instructions on the screen and return your answers in either Text or email format. Topics will cover business operations and risk management needs. 1. Why do I need Business Insurance AND workplace policies?

2. Liability as an employer and from your employees

General liability

Professional Liability

Commercial Umbrella

3. Workers' compensation and safety

Recognizing the limits of your abilities

4. Property, Theft, Auto, Environmental Damage and other important coverages

2020PDH- 013. Educating the property owner on best management and operation practices. - 2 hours \$80 - 0.2 CEU Onsite System Installers and Maintenance Providers.

Building a relationship of trust with the property owner is more than just a 'pump and go' event. Educating the public about their responsibility as an onsite system owner is compatible with your role as an environmental and public health professional. A recent study made the claim that the average adult has a 5-8th Grade understanding of science but a basic understanding of how a septic system works is essential to their performance and your

ability to properly service them.

This class will cover resources available for you to develop communication skills and customize education services and messaging for the property owner to promote the reason we are all in this business - to protect public and environmental health:

- a) an appreciation, and understanding, of how their specific system works - using EPA Septic Smart Tools and Resources
- b) helpful tips on how to cut down on both service and electricity costs by practicing water conservation - using EPA WaterSense™
- c) drainfield and system protection best practices - and understanding of basic soil biology and structures and how this affects good treatment - using resources available from NRCS.
- d) seasonal issues - protecting the system and reserve treatment area in both freezing and drought conditions.
- e) Why there IS a reserve treatment area - explanation of Groundwater Awareness Week
- f) property use issues - i.e home based businesses
- g) local/state regulations for the property owner to be aware of.
- h) a better appreciation of what you do as a service provider.

2020PDH- 014: Online Tool for Creating a Community/Individual Septic System Owners Guide 2 hours \$10- 0.2 CEU Onsite System Installers and Maintenance Providers.

Many residential and commercial properties rely on onsite systems to safely treat their wastewater. Many of these systems serve clusters of homes through a shared 'community' system which requires additional management. The delivery of proper system management is a key issue to ensure cost-effective and long-term wastewater treatment for both new development and existing communities. Community System Owner's Guide (CSOG) will help community members and leaders understand how their system works, what management tasks need to occur on a regular basis, and how they can protect their infrastructure from premature failure. Using this tool, an engineer, septic professional, community facilitator, or educated community member will be able to develop a guide to effective management by entering basic information on the users, system, rate structures and any regional, state, or local differences in regulations that affect the management of community systems. A Team lead by Sara Heger - Onsite Sewage Treatment Program in the Water Resources Center at the University of Minnesota has created H2OandM.com. This recorded demonstration is approved for 2 OH CEU hours. An administration fee of \$10 will be charged to oversee the CEU requirement which is to answer a 10 question quiz about the Tool plus create a System Guide Template.

2020PDH- 015a: Covid 19 OSHA Rules and guidance for water and wastewater essential workers

Travis W. Vance. Partner Fisher & Phillips LLC

The Coronavirus and Your Workplace: What You Need to Know - 1 hours \$40 - 0.1CEU Onsite System Installers and Maintenance Providers. DEQ Wastewater.

The novel coronavirus's impact on the economy has been far and wide, and developments are occurring on a daily basis. To date, Congress has passed three relief laws – the Emergency Paid Sick Leave Act (EPSLA), the Emergency Family and Medical Leave Act (EFMLA), and the CARES Act – any or all of which may impact your business in a variety of ways. Additionally, a substantial majority of states have now enacted shelter-at-home orders, exempting “essential” business activities. Meanwhile, OSHA has issued guidance to employers regarding how to protect employees.

This webinar will provide an updated assessment of the state of the coronavirus and legal implications for your workplace. Subjects include:

- Overview of the novel coronavirus
- State and local shelter-in-place laws

- The EPSLA, EFMLA, and CARES Act
- OSHA and CDC guidance regarding safe workpractices
- Practical advice for employers navigating this ever-changing landscape.

2020PDH- 015b: It's Getting Hot in Here: Heat Illness Prevention and OSHA Requirements
Travis W. Vance. Partner Fisher & Phillips LLC 1 hours \$40 - 0.1CEU Onsite System Installers and Maintenance Providers. DEQ Wastewater.

In Summer, temperatures across the country heat up. Will your employees be exposed to the summer heat, either by working outside or in non-climate-controlled buildings? If so, your company needs to consider ways to prevent heat illness among employees and stay compliant with any applicable occupational safety and health laws. Not just outdoor conditions can put your employees at risk for heat exhaustion. This webinar will provide a discussion of the following topics to keep you cool and compliant:

- What are heat illnesses?
- Are there any federal OSHA or other federal legal requirements regarding heat illnesses in the workplace?
- Are there any state OSHA or other state legal requirements?
- What are best practices for keeping your employees cool, preventing heat illnesses, and complying with legal requirements?

2020PDH- 015c: The Laws and Regulations Surrounding PPE s 1 hours \$40 - 0.1CEU Onsite System Installers and Maintenance Providers. DEQ Wastewater.
Travis W. Vance. Partner Fisher & Phillips LLC

Employers have a general duty to furnish workplaces free from recognized hazards. Part of that obligation is providing employees with personal protective equipment (PPE). This leads to a series of questions, such as: What types of PPE are employers required to provide? How are they to determine what PPE is required at a particular worksite? Do they even have to provide PPE?

This webinar will address the legal requirements for employers related to PPE, including:

- The Hierarchy of Controls;
- Types of PPE;
- Conducting a hazard and PPE assessment for each workplace;
- Training requirements for using PPE;
- Requirements for providing PPE to employees; and
- Other aspects of the OSHA PPE standard.

2020PDH- 015d: Opioids/Cannabis Workplace Drug Testing: What Should Employers Know? 1 hours \$40 - 0.1CEU Onsite System Installers and Maintenance Providers. DEQ Wastewater.

Travis W. Vance. Partner Fisher & Phillips LLC

The opioid crisis has escalated dramatically in the past decade across the country, and those affected may also be your employees. At the same time, the marijuana legalization movement has grown, and a number of states now not only permit medical marijuana but also recreational marijuana. With the potential for more employees to be under the influence of both legal and illegal drugs, what can employers do to maintain a safe workplace? What restrictions are there for testing employees for drug use? This webinar will explore this issue and cover the following topics:

- The rise of the opioid epidemic and its effect on the American workplace
- The legation of recreational marijuana in several states
- Restrictions for conducting drug tests for employees
- Whether there are any OSHA implications regarding drug testing
- The role of the Americans with Disabilities Act
- Best practices for conducting drug tests and managing the results.

Kind regards
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Our Mission: To increase awareness that water quality is directly linked to the use of appropriate wastewater systems and their management.

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