

**COURSE TITLE**

EPA Onsite Wastewater Treatment: Systems Management (RV-6088)

COURSE DURATION

4 hours

OVERVIEW

Onsite wastewater treatment systems enable millions of people who do not have access to public sewage and treatment plants to treat household effluent by safely cleansing the wastewater and returning it to the environment. However, faulty treatment systems can contaminate the surrounding environment, spreading contaminants and disease that may pollute groundwater reservoirs for generations. This 4-hour interactive online course is based on Chapter 2: Management of Onsite Wastewater Treatment Systems, from the Environmental Protection Agency's Onsite Wastewater Treatment Systems Manual. This chapter is intended as an informational guide to management of these systems, a key element in maintaining the health of the public and the environment.

PREREQUISITES

No prior knowledge is required.

BEHAVIORAL OBJECTIVES

After successfully completing this course, you will understand:

- The elements of a successful program: specific goals, public education and outreach, system maintenance and monitoring, adequate legal enforcement, and funding
- The types of management entities: federal, state, and tribal agencies, local government agencies, special-purposed districts and public utilities, and private management entities
- The components of management programs: legal responsibilities, public health and resource protection goals, system planning, performance requirements, public education, and site design and construction
- Financial assistance programs and financing options for the construction of wastewater treatment systems: government grants, loans, bonds, and property assessment

COURSE OUTLINE

- Introduction (10 minutes)
- Elements of a successful program (60 minutes)
 - and Specific Program Goals
 - Public Education and Outreach
 - i. Public Education
 - ii. Public Outreach
 - Technical Guidelines for Site Evaluation, Design, and Construction
 - Regular System Operation, Maintenance, and Monitoring
 - Licensing or Certification of Service Providers

- Adequate Legal Authority, Effective Enforcement Mechanisms, and Compliance
- Incentives
- Funding Mechanisms
 - Adequate Record Management
 - Periodic Program Evaluations and Revisions
- Types of management entities (40 minutes)
 - Federal, State, Tribal and Local Agencies
 - Local Government Agencies
 - Special-purpose Districts and Public Utilities
 - Privately Owned and Operated Management Entities
 - Regulatory Authorities and Responsible Management Entities
 - Management program components (90 minutes)
 - Authority for Regulating and Managing Onsite Treatment Systems
 - Onsite Wastewater Management Program Goals
 - Public Health and Resource Protection Goals
 - Comprehensive Planning
 - Performance Requirements
 - Performance Requirements and the Watershed Approach
 - Implementing Performance Requirements Through a Hybrid Management Approach
 - Developing and Implementing Performance Requirements
 - Public Education, Outreach, and Involvement
 - Site Evaluation
 - System Design Criteria and Approval Process
 - Construction and Installation Oversight Authority
 - Operation and Maintenance Requirements
 - Residuals Management Requirements
 - Certification and Licensing of Service Providers and Program Staff
 - Education and Training Programs for Service Providers and Program Staff
 - Inspection and Monitoring Programs to Verify and Assess System Performance
 - Compliance, Enforcement, and Corrective Action Programs
 - Data Collection, Record keeping and Reporting
 - Program Evaluation Criteria and Procedures
 - Financial assistance for management programs and system installation (30 minutes)
 - Financing Options
 - Primary Funding Sources
 - Other Funding Sources
 - Conclusion (10 minutes)

Method of attendance monitoring and verification

Courses are developed with interactivity as a key component in its development. Vector Solution’s ‘rule of thumb’ is to insert an activity every 3 to 5 minutes or 500 to 800 words of text. We offer a variety of

activities through the coursework to keep the user involved and requiring knowledge of the course materials being reviewed in order to move forward.

Users sign into an account with a unique User Name and Password. We request that a user agree to an affidavit stating that they are the owner of the account before proceeding to the exam. Course completion is measured by passing the exam with a minimum score of 75%.

Students are notified at the beginning of the course that they are required to spend 50 minutes per credit hour in the course in order to receive an accreditation certificate. The LMS will not allow a certificate to be issued or reflect course completion until the time requirement is met by the user.

We monitor required student participation in the course by logging and tracking the date and time a student enters a course, tracking activity during the course, and recording the date and time they complete the exam with a required passing score. If our learning management system detects 13-minutes of inactivity, a pop-up appears alerting the student that they must verify their presence or the session times out and the course closes.

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CAPABILITIES:

! CPM Scheduling	! Cost Analysis
! Claims Analysis	! DDD Schedule Analysis
! Project Management	! Schedule Delay
! Disruption and Impact	! Productivity Impact
! Changes and Extra work	! Engineering Planning
! Home Office Overhead	! Performance Management
! Expert Witness Testimony	! Procedure Development
! Constructability Reviews	! Estimating

EDUCATION: B.S. in Civil Engineering, University of Pittsburgh, 1974
M.B.A., Northern Michigan University, 1978

REGISTRATIONS: Professional Engineer Florida License Number: PE 0039933
Michigan License Number: PE 6201025607

DISTINCTIONS: 2001 Small Business of the Year Award - Greater Tampa Chamber of Commerce
Tampa Bay Business Journal List "Who's Who in Architecture and Engineering"
Appointed to the American Arbitration Association's Panel of Arbitrators
1995 University of Pittsburgh Alumni Volunteer of the Year

AFFILIATIONS: American Association of Cost Engineers;
Former President, Tampa Bay Section, 1993/94 & 1994/95
Associated General Contractors of America
Associated Builders and Contractors
American Bar Association
American Public Works Association
American Society of Civil Engineers
American Society of Highway Engineers
American Institute of Architects
American Subcontractors Association
Society of American Military Engineers

EXPERIENCE: Mr. Chitester is recognized nationally as an expert in Claims Analysis and Dispute Resolution, CPM Scheduling, Project Management, and Cost Engineering. He began his career with Bechtel Power and Blount Brothers where he gained field construction and scheduling experience on projects ranging from \$150 Million to \$500 Million. For more than 28 years, he has provided services essential to maintaining control of project costs and schedules to a balanced mix of public and private sector clients.

Mr. Chitester's expertise has been applied to industrial process plants, power generating facilities, buildings, wastewater treatment facilities, pipelines, and roadway design and construction. He has performed cost and schedule analyses on projects totaling more than \$10 billion in construction costs.

Mr. Chitester presents seminars and in-house training on topics as productivity analysis, delay analysis, CPM scheduling, and construction claims, and has served as a course instructor for the Associated General Contractors' Supervisor Training Program. More than five thousand licensed professionals from across the country have attended lectures and presentations by Mr. Chitester.