“Facilities Sand Management for the Upstream Oil & Gas Industry”

$500 for all, and $250 students

Description

Facilities Sand Management is tasked with the goal of ensuring sustained hydrocarbon production when particulate solids are present in well fluids, while minimizing the impact of these produced solids on surface equipment. Conventional sand management focuses on sand exclusion from the wellbore, either by production limits or completion design. Improper or failed completions result in high levels of sand production, and even proper completions will still pass some quantities of sand. An inclusion paradigm that all oil & gas wells produce sand, either now or in the future, deals with co-production of fluids and solids. A solids handling methodology incorporating separation, collection, cleaning, dewatering, transport, and disposal into new or existing facilities simplifies production operations, extends facilities life, restarts shut-in wells, can improve total hydrocarbon recovery, and allows sustainable hydrocarbon production.

Learning Objectives: At the end of this course participants will be able to:
- Define and characterize oil & gas produced solids including key terms and concepts
- Design and specify piping, valves, and instruments for facilities with solids production
- Detail the five-step methodology for solids handling system design - separate, collect, clean, dewater, and transport – and how to integrate these steps into new or existing facilities
- Understand the operation and specify the design for key unit processes including liquid desander, multiphase (wellhead) desander, screen-filters, cyclonic jetting, and sand cleaning systems
- Identify a proper solids disposal route and how to design a dewatering and transport system into the solids handling system to meet the disposal requirements

Agenda: Introduction to Facilities Sand Management; The Nature of Solids; Solids Handling, Solids Dewatering, Transport, and Disposal; Liquid Desander, Multiphase Desander, and Exercises using student or instructor provided data.

Learning Level: Intermediate to Advanced

Course Length: 1 days

Why You Should Attend: All oil & gas wells produce sand. Proper Facilities Sand Management simplifies production operations, extends facilities life, restarts shut-in wells, and can improve total hydrocarbon recovery.

Who Should Attend:
Engineers and operators involved with design and operation of facilities (onshore, offshore, or subsurface) where sand production is an issue.

CEUs: 0.8 CEUs (Continuing Education Units) will be awarded for this 1-day course.

Special Requirements: Participants should be familiar with oil and water treatment equipment, processes, and systems, especially separations technologies with mechanical design including ASME Section VIII for Pressure Vessels, ASME B31.3 for Process Piping, and API-6A for Wellhead Equipment.
would be useful. If appropriate, bring relevant facilities designs and sand production problems to use as in-class exercises.

**Cancellation Policy:** To receive a full refund, all cancellations must be received in writing no later than 14 days prior to the course start date. Cancellations made after the 14-day window will not be refunded. Send cancellation requests by email to [Francois.florence@gmail.com](mailto:Francois.florence@gmail.com)

**Instructor**

**DR. HANK RAWLINS**, P.E., is the Technical Director of eProcess Technologies with 25 years’ experience in the upstream oil & gas industry. He actively conducts research in Facilities Sand Management, Produced Water Treatment, and Compact Separations Systems - and blogs weekly, teaches courses, and has fifty-six publications on these topics. Dr. Rawlins will be serving as an SPE Distinguished Lecturer for the 2018-2019 season where he will be speaking on Facilities Sand Management. Hank has served as the chair of the SPE Separations Technology Technical Section (2013-2015), was an SME Henry Krumb Lecturer (2011-2012), and co-authored the PEH Chapter on Produced Water Treatment. Dr. Rawlins holds a PhD in Metallurgical Engineering from the University of Missouri-Rolla, and serves as adjunct professor at Montana Tech.