



## Oil Well Pad Facilities (for Facilities Engineers) - OWPF-FE

### COURSE

#### About the Course

This course is focused on onshore well-pad facilities that are typically used for the development of shale/tight oil fields. The course starts with the review of typical well-pad facility process flow diagrams (PFDs) and the considerations involved in selecting a suitable PFD for the given conditions. Variations on the different PFDs are evaluated and their applications, pros and cons discussed. The main equipment types utilized are reviewed with focus on selection and sizing. A key aspect of this course is understanding the interfaces between the producing wells, the well-pad facility, and the gas, oil, and produced water export systems. Numerous exercises and calculations will be utilized throughout the course to develop solid understanding and competence level in the areas covered. This course differs from the OWPF-NFE (Non-Facilities Engineers) course in that it is longer, goes into more detail in the subject areas, and is focused on facilities engineering aspects and calculations.

**\*\*** This course has some overlap of content with PF-4 Oil Production & Processing Facilities which is a 10-day Intermediate level course. PF-4 is broader in scope, covers onshore and offshore facilities and goes into more detail in certain areas. OWPF-FE is more narrowly focused on onshore oil well-pad facilities.**\*\***

#### Target Audience

This course is aimed primarily at Facilities Engineers but would also be suitable for senior operations personnel involved with design and operation of onshore oil well-pad facilities. It is not an engineering discipline-specific course but instead covers multiple aspects of pad facilities. OWPF could also be used for cross-training of more specialized discipline engineers to provide them with a better understanding of how the various pad facilities components integrate and act together.

#### You Will Learn

- The factors involved in selecting a process flow scheme for a typical oil well-pad
- The effect of well production characteristics and well performance on the surface facilities and how to integrate the two areas efficiently
- Typical wellstream compositions and their variability, and how to determine the fluid properties needed for equipment selection and sizing and their effects on operations
- The main pad facility processing requirements needed to produce on-spec products for sale or disposal, and the associated equipment types and operating conditions typically utilized
- How the various processes and equipment types work with focus on the requirements of typical onshore shale/tight oil well pad facilities

- Selection and sizing guidelines and methodologies for the various processes and equipment types covered
- Effects of third party gas gathering system design and operation on the well-pad facilities
- Basic troubleshooting aspects of oil well-pad facilities

## Course Content

- Oil well-pad process flow diagrams
- Well production characteristics
- Fluid compositions and properties
- Separation equipment
- Oil treating
- Oil stabilization
- Storage tanks and vapor recovery
- Facility piping systems
- Relief and flare systems
- Compressors
- Sand handling
- Produced water handling
- Flow measurement

## Product Details

Categories: [Midstream](#)

Disciplines: [Process Facilities](#) [Unconventional Resources](#)

Levels: [Foundation](#)

Product Type: [Course](#)

Formats Available: [In-Classroom](#)

Instructors: