



# Training

## in Electrostatic Coalescer and Desalter technology and process.

### Course objective

To provide detailed knowledge and understanding of electrostatic coalescence technology, its operation (including start-up, shutdown, troubleshooting), and maintenance.

### Who should attend?

Process engineers, operators, and technicians working on production unit with an electrostatic coalescer installed.

### Upon completion of the course, participants will know the following:

- Fundamentals of the electrostatic coalescer and desalting process and equipment
- Electrostatic coalescer unit control and safety philosophy
- Electrostatic coalescer unit key parameters
- Unit operation: start-up, shutdown, emergency shutdown, and troubleshooting
- Equipment maintenance and maintenance schedule for the main equipment

### Deliverables

- Training documentation
- Training execution
- Workshop participation

### Location

Selected NOV training centers or client preference. Training can also be offered online.

### Duration

2 days

### Contact

[process-systems@nov.com](mailto:process-systems@nov.com)

### Training course includes

- Training by experienced technology personnel
- 2 days training for up to 10 trainees
- Hard and soft copies of training material in English

## Course content

### Welcome

- Safety moment
- Review of agenda
- Course objectives
- Introduction of participants and their expectations

### Principles of electrostatic coalescence and desalting

- Objective of removing residual water and salt
- Fluid properties
- Emulsions and their stability mechanisms
- Electrostatics
- Different type of system designs
- Salt balance – calculation example

### Process design

- Design basis
- Process flow diagram and package design
- P&ID
- General Arrangement drawings

### Equipment description

- Vessel design
- Power design
- Instrumentation
- Mixing valve
- Control panel
- Circulation pump

### Operation

- Safety philosophy
- Cause and effect charts
- Startup and shutdown procedures
- System operations and settings (levels, voltage)
- Control and expected effect on performance
- Opportunity for unique insight from analytics
- Sampling philosophy
- Relevant analyses and their applicability
- Troubleshooting – Alarm Response Matrix

### Maintenance

- HSE
- Inspection and maintenance schedule
- Maintenance of main equipment
- Spare parts philosophy

### Evaluations

- Q&A session
- Review – have the learning objectives been met
- Evaluation of course

