

Mastering Fluid Catalytic Cracking

Consultant / Trainer

Steven Kalota



The **Petrogenium.** program is ideal for personnel involved in refinery process engineering, FCC Unit operations, company internal technical services positions, and catalyst sales. Process engineers from design and construction companies and those providing services to Fluid Catalyst Cracking Units in the petroleum refining industry would also find this course beneficial.

This Course provides an extensive and detailed knowledge of FCCU fundamentals through specifics. It provides the attendee with instruction and interaction with the trainer and other attendees to significantly improve their FCCU operations performance and stability, on-stream efficiency, mechanical reliability, operating margin, and profitability.



Participants

This **Petrogenium.** course can be tailored for awareness/inexperienced staff, for intermediate and for experienced personnel. Participants may include: Process Engineers, Technical Service Engineers, Operations Engineers, Production Engineer or Manager, Operating Supervisor, and any other Professionals who are involved in fluid catalytic cracking units design and operations.



Learning Objectives

Learn in detail about the FCCU process design, mechanical design, and technology aspects

- Understand and apply the impact and control of FCCU catalyst quality and quantity
- Increase your knowledge of FCCU optimization and resolution of operation issues
- Master the operational variables and control to achieve specific processing goals
- Determine the important and critical procedural aspects, including start-up, shutdown, and emergency responses
- Increase equipment reliability and decrease operating costs
- Improve maintenance planning and repair/replacement efforts
- Identify, understand, and apply performance monitoring tools and values.

Programme

DAY 1

Day 1 will begin addressing general FCCU historical development as a process technology, its place in the refining industry, and the design configurations in practice. The presentation will then deal with FCCU feed composition and quality and FCCU chemistry and catalyst details. The afternoon session will end with a discussion on fluidization and fundamentals.

DAY 2

Day 2 will cover the process and mechanical design aspects of the FCCU Converter. Specific design parameters and guidelines for the Regenerator will be presented in the morning, along with selected individual equipment, such as Slide Valves, Flue Gas system, Power Recovery, Wet Gas Scrubbing and Electrostatic Precipitation. The afternoon will move to the process and mechanical design of the Reactor and Stripper, including Risers, Feed Nozzles and Riser Termination technologies.

DAY 3

Day 3 will discuss the downstream Main Fractionator and Gas Concentration sections of the FCCU for distilling and purifying the Reactor vapour effluent products. This includes operation and control of the Main Fractionator heat and pressure balances, Wet Gas Compressor, Absorbers, Stripper/Dethanizer, Debutanizer, Depropanizer and C3 Splitter.

DAY 4

Day 4 morning will have a detailed discussion and example generation of the FCCU Converter heat and pressure balances. Process control and variable effects will be covered after lunch followed by start-up, shutdown, and emergency response considerations. Final questions and answers will end the training session..

Why select Petrogenium.?

The above support will be provided by principal consultants with 30+ years world-class experience in the technology and hands-on know-how from operation of refinery units.

Contact Petrogenium.:

Email: training@petrogenium.com

Website: <https://www.petrogenium.com/training/>

Because Experience Matters