



# Thermal Cracking Process

Consultant / Trainer:

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The **Petrogenium**. Thermal Cracking Course is an awareness skills course aimed at professionals who deal with Visbreaker or Thermal Conversion units at a Refinery.

## Participants

This **Petrogenium**. course can be tailored for awareness/inexperienced staff, for intermediate and for experienced personnel. Furthermore, the course can be customized for a specific refinery, plant or unit. The option for post-course consultancy/help-desk support is also available.

Participants may include: Unit technologists, process engineers and experienced operations staff who are working on or exposed to visbreaking technology or its products (fuel oil blending operations). Further the course will be valuable to anybody that wants to gain better perspective on how the Thermal Cracking Units fits into the refining scheme.

## Learning Objectives

This course provides a general introduction to thermal conversion processes such as visbreaking, distillate cracking and Thermal Gasoil Units. The basis and theory behind the process will be addressed including properties of feed residue and products as well as stability theory. Further elements are main process equipment including their constraints, unit operation as well as unit decokes. The course will further address fuel oil blending as well as process economics. The last day of the course is an interactive clinic workshop during which current challenges and issues of the unit at hand will be discussed and analysed.

## Programme

### Day 1

- Basics of Thermal Conversion
- Line-ups of Thermal Conversion units
- Yields and properties of TC-products
- Exercise 1
- TC-equipment

### Day 2

- Monitoring of TCUs
- Start-up, shut-down
- Decoke
- Exercise 2
- Troubleshooting
- HSE and emergency procedures

### Day 3

- Thermal conversion furnaces
- Exercise 3
- TC Open Clinic