

# MERCURY MANAGEMENT COURSE

## - Handling, Removal & Control in Oil & Gas -

Instructor: Dr. Darrell Gallup (Thermochem)

### COURSE OVERVIEW

Mercury (Hg) is one of the contaminants which naturally existed in the natural gas in magnitude from ppb level to ppm level. In order to meet with process specification (typical low temperature gas processing/LNG) or customer demand or local regulation, mercury removal processes are installed to lower the mercury concentration. The installation can be at the gas pre-treatment or at the liquid product or at the produced water before overboard.

Once removed, the challenges come to handling the spent catalyst and the disposal of mercury by-product. For day to day operation, it is always a challenge to work in a high mercury content process plant. It is important to regularly monitor the mercury level at each emission points, before we do the vessel entry and during flange breaking related activities. Special measurement has to be in-placed to avoid adverse effect of mercury. In this course, we also highlight what we shall do in the event of mercury spill to handle it in proper manner to human and environment.

### COURSE CONTENT

1. Overview on Mercury (forms, sources and hazard) and Related Standards & Regulations
2. Mercury Handling & Decontamination and Safety Issues
3. Mercury Analysis (sampling, measuring and analyzing tool)
4. Mercury Removal Technology for Oil and Gas Industry
5. Case Studies: Mercury Related Incident, Handling and Removal

### WHO SHOULD ATTEND

The course is designed for :

- project managers
- production managers
- process/facility engineers
- operation supervisors / superintendent
- environment engineers
- safety Engineers
- industrial hygiene
- operating and craft personnel
- laboratory personnel

Who deal with day to day field/plant which content mercury or a project team who designs and constructs mercury related proces.

### About the Course Instructor

DR Darrell Gallup of Thermochem has 32 years experience in production optimization for the petroleum industry. He is an internationally recognized authority on oil / gas production, chemistry, flow assurance, geothermal energy production, water treatment and environmental processes. His “hands on” problem solving and process development philosophy has delivered an impressive track record of success in solving complex process chemistry and engineering problems.

Mercury Removal from Crude Oil is one of his key expertises. He assisted the development and pilot testing of mercury removal process that is installed commercially at oilfield in Argentina – which successfully operates for 4 years. He also developed improved process to remove mercury and arsenic from oilfield produced water.

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### DETAIL OF CONTENT

- **Overview on Mercury (forms, sources and hazard) and Related Standards & Regulations**  
Learn the physico-chemical characteristics of mercury and its compounds, its occurrence and distribution in minerals, water and hydrocarbons, the toxicity and hazards associated with mercury and its compounds, and environmental and personnel regulations/standards to reduce exposure to this toxic metal.
- **Mercury Handling & Decontamination and Safety Issues**  
Learn how to safely work around and handle mercury and its compounds. Understand what appropriate PPE to use when encountering mercury as a contaminant in the petroleum industry, and how to respond to spills or discharges of mercury into the environment. Determine ways to monitor mercury exposure to flora and fauna. See how mercury contamination is monitored, contained and removed from equipment.
- **Mercury Analysis (sampling, measuring and analyzing tool)**  
See how mercury contamination is monitored and analyzed in the field and the laboratory. See the latest mercury monitoring equipment and analyzers, determine how to select the best monitors and analyzers for your application, and how best to determine mercury concentrations and forms in solids, gases, waters and hydrocarbons.
- **Mercury Removal Technology for Oil and Gas Industry**  
Learn from the expert about the various methods to remove mercury from gas, oil/condensate, refinery products, produced water, refinery wastewater, and soils/sludge. Understand options for disposing of mercury residuals from the various technologies. Hear about mature and new technologies to tackle mercury removal from different streams in both upstream and downstream applications.
- **Case Studies: Mercury Related Incident, Handling and Removal**  
Review efforts that have been deployed to manage, control, handle and remove mercury in field operations. Participate in discussions on how to apply case study learning to simulated mercury incidents.



#### HOW TO REGISTER

If you wish to register, email us at: [info@rhenindo.com](mailto:info@rhenindo.com)

For further details, please do not hesitate to contact us:

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