Petrogenium. Academy

Performance Improvement

Refinery & Petrochemicals Hydrocarbon Mass Balance & Loss Course

Consultant / Trainer
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The **Petrogenium.** Refinery & Petrochemicals Hydrocarbon Mass balance & Loss course will support you not only with developing proper mass balances around your refinery and/or petrochemicals plant, but also to identify losses. This comprehensive course will help you to mitigate your losses with a lot of practical hands-on information. No high-level consultancy speak, but the real thing!

This course can be given face-to-face or remotely. The presentations are interactive, supported with slides that also serve as a dedicated course manual (PDF file). The course includes interactive discussions and participant topics (on demand, aided by short videos, exercises and Q&A sessions). Learning assessment is through a written examination (if required).

Participants

This **Petrogenium.** course can be tailored for awareness or 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: Refinery and Petrochemical Plant Managers, Production Managers, Finance Manager, Oil Movement Managers, Yield Accountants, Instrumentation Engineers, Control Engineers, Laboratory Manager, Maintenance Engineers, Terminal Operators, Plant Engineers, Supply & Trading Managers, Process Engineers and Technologists

Learning Objectives

- Get a brief introduction to refining and petrochemicals operation (technical and economic).
- Understand the various types, roles and importance of mass balances.
- Appreciate the (monetary) impact of hydrocarbon loss.
- Understand the various types of hydrocarbon losses (physical, paper, accounted, unaccounted).
- How to minimise the physical and paper hydrocarbon losses.
- Understand the impact of ocean loss and how to minimise.
- Appreciate the use of checklists to find potential hydrocarbon losses.
- Understand how Key Performance Indicators can support business improvement.
- Appreciate the need of good governance.
- How to reduce flaring.
- Get acquaintance with practical ideas from refineries worldwide to mitigate hydrocarbon loss.

Programme

DAY 1

1. Refinery & Petrochemicals Introduction

1.1 Refinery operation

1.2 Petrochemicals operation

2. Hydrocarbon Mass Balances

2.1 The role of a mass balance

2.2 The impact of hydrocarbon loss

2.3 Basic refinery mass balance

2.4 Reconciled refinery mass balance

3.4 Unaccounted losses

3. Hydrocarbon Losses

3.1 Physical losses

3.2 Paper losses

3.3 Accounted losses

4. Minimising Physical Hydrocarbon Losses

4.1 Physical losses mitigating actions

4.2 Physical losses checklists

Programme

DAY 1 - Continued

5. Minimising Paper Hydrocarbon Losses

- 5.1 Paper losses mitigating actions
- 5.2 Paper losses checklists

6. Ocean Loss

- 6.1 What is ocean loss
- 6.2 Minimising ocean loss

7. Targets and Benchmarks

- 7.1 Targets & Benchmarks
- 7.2 How to arrive at Best-in-Class

8. Questions and Answers

DAY 2

9. Key Performance Indicators

- 9.1 KPI Introduction
- 9.2 KPI Dashboards

10. Governance

- 10.1 Roles & Responsibilities
- 10.2 Reviews Meetings
- 10.3 Auditing

11. Case Study 'Flare reduction'

- 11.1 Introduction
- 11.2 Case Study
- 11.3 Best Practices

12. Questions and Answers

DAY 3

13. HM 31 Guide Topics

- 13.1 Introduction
- 13.2 Weighing & measuring
- 13.3 Loss from process units
- 13.4 Tankage

14. Miscellaneous Topics

- 14.1 Idea lists
- 14.2 Tools

15. Summary & Conclusions

16. Questions and Answers

17. Examination

18. Course Feedback & Certification

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.

Because Experience Matters

Contact Petrogenium.:

Email: training@petrogenium.com
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