Collaboration of Data and
Process for Refinery Offsite Operations

R RECONCILE HYDROCARBONS
OEA17P

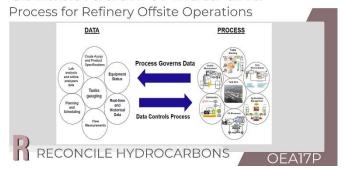|	
Topic ID	OEA17T
Title	**Collaboration of Data and Process for Refinery Offsite Operations**
Category	**R-Reconcile Hydrocarbon**
eLearning Level	**Basic**

Introduction

The data types above deal with several processes to be conducted within a refinery industry to bring out the required output. The data types consider the available data so that processes can be controlled accordingly.

This topic discusses how processes and data complement and supplement each other.

Data Governance and Process Control in Typical Key Refinery Operations - The refinery processes are controlled by a comprehensive understanding of the usages of static, real-time, historical data types.

And their working in tank management, oil movement, blending, and hydrocarbon management as discussed below.

- **Tank Farm**- The maximum capacity of a tank to pump, volumetric and mass contents, simulation of liquid assets inventory, and time to load and unload tasks are understood and performed in this case.
- **Fuel Blending**- These operations include functioning and controlling systems on in-line blending, reviewing blend control performance after each giveaway, blend stocks, and product tank volumes.
- **Oil Movement**- These operations deal with the volumetric and mass contents of transfers, their flow movement, dynamic path selection, tracking of transfer types, the status of field equipment, facilitation of hydrocarbon management, etc.
- **Hydrocarbon Management**- This aspect considers the mass and volumetric balancing of products, the composition of crude, fencing the balancing, studying the sources of losses, a gap in the sequencing, and its comprehensive functioning.

The four-facet strategy termed **MCOR**, explained next, facilitates efficient management and execution of refinery operations.

1. **(M) Management of Infrastructure** - Efficient management of plant infrastructures such as tank farms, blenders, field equipment, and analyzers ensures their timely availability in working conditions for any operations.

2. **(C) Control of Manufacturing** - Manufacturing can be controlled by single crude blending, studying the aspects of tank inventory and oil movements. However, terminal operations like marine, pipeline, and trucks are also to be considered. Efficient performance is a crucial task in optimization.

3. **(O) Optimization of Productions** - The optimization of production increases profitability and increases productivity by utilizing mathematical programming at various production levels.

4. **(R) Reconciliation of Hydrocarbons** - This deals with the reconciliation of material movements. It also helps to decrease the loss of oil, which helps in improving the bottom line.

Summary

For refiners, the main issue is that there are plenty of data resources present. Specific software is needed to combine and study all of them.

Mode of eLearning	Available?
Free Course	No
Refresher Course	Yes
Pick N Choose (Custom Curriculum)	Yes
Advanced Level Course	Yes
Structured MCOR Curriculum	Yes