Topic ID	**OEA55T**
Title	**Problems and Challenges of Offsite Operations**
Category	**C-Control Manufacturing**
eLearning Level	**Basic**

Introduction

As technology advances, so does the market demand. As air pollution is a major concern, the market now demands that petroleum products reduce this air pollution. Along with that, the change in-car technology also demands better petroleum byproducts for their running. Unfortunately, the resources that produce these petroleum products are depleting at a fast rate.

This topic will discuss business challenges, crude feeds, the magnitude of offsite activities, large amounts of equipment, terminal operations, material movements, tank farms, blending, etc.

The Magnitude of Offsite Activities

In a typical refinery, there are tons of offsite activities as well as onsite ones. This is because all refineries have many liquid assets at their disposal, and the magnitude of handling that much liquid is challenging. Details of offsite activities are as follows:

There are typically 80 – 100 tasks every day that involves oil movements and storage. Out of these 80 – 100 tasks, almost 45 – 50% of tasks involve transferring oil from one tank to the other. Conversely, only 30 – 35% of tasks include transferring oil from one unit to a tank.

Equipment Management

The efficient management of equipment keeps refinery operations running smoothly. Many kinds of equipment are used for refinery operations. These include tanks, pumps, & motor-operated valves.

Terminal Operations

When equipment management is not done adequately, faulty meters may give incorrect indications about product quality. If chemical material is not utilized fully, it may degrade, resulting in a loss of money and resources. Contamination is another major threat as the product becomes useless if it is not stored correctly, so any contamination due to faulty storage will ruin it. Shipment of resources is another major challenge. If proper records and data are not kept, the delay in just one day's shipment may cost millions.

Challenges of Tank Farm Operations

Non-utilization of tanks reduces the amount of product obtained, thus increasing cost and time. All gauges should be monitored for the correctness of the readings, and the quality of the material is maintained. Proper monitoring of the inventory should be a top priority as materials should be readily available for production.

They help in cost-effective corrosion control. Examples of corrosion inhibitors include the pipeline corrosion inhibitor & aviation fuel corrosion inhibitor.

Summary

Blending operation is an extensive operation because the required product may not be obtained in just one go. Multiple mixtures have to be made to get the right product. In addition, the mixture of material might overflow from the tank during the blending process if exact ratios are not known.

Options for eLearning This Topic

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

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