

Storage, Handling and Safety Procedure for Fuel in Oil & Gas Industry



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Abstract: After Finding the oil & gas occurrences in the subsurface using various methods and tools that were available in Upstream Oil and Gas Industry. Further reaching the reservoir and taking out the Oil & Gas from those to the surface the fuel have to transport and store to get purify for supply to the required user. Here the Midstream peoples plays a vital role in it. The drilled Oil and Gas have to transport from the occurrence to the destination Refinery so it have to be planned well and many safety procedure have to be done to avoid any problem in those transportation and after transporting to the destination it must be maintained in perfect temperature condition and perfect storage tanks either above the ground or the underground. Again there are some safety procedures to be followed which were approved by the Government safety norms. This article deal about the process and procedures in transporting and storage of fuels from upstream to midstream to downstream. Also about the safety precaution and procedure to be followed to have a safe storage and handling.

Key words: Fuel Storage, Fuel Supply, Fuel Safety etc..

I. INTRODUCTION

India a developing country with a population of about 1.37 billion in 2019 compares to 1.354 billion in 2018. As the population rate increase year by year. The need and requirement of fuel also increase. In India each and every family have at least one or two vehicles which runs on fuel. Even though India have many resources but the fuel are majorly imported from other countries only till now. At a conference in 2015 "URJA SANGAM" our Prime Minister had said that India needs to come down its oil import dependence from 77% in 2013-2014 to 67% by 2020. when India celebrate its 75th year of independence and further cut to half by 2030. As of now the dependence have rise from 82.9% in 2017-18 to 83.7% in 2018-19, according to the oil ministry's petroleum planning and analysis cell (PPAC) in addition 2015-16 was 80.6%, which rose 81.7% in the following years. Our countries oil consumption grew from 184.7 million tonnes in 2015-16 to 194.6 million tonnes. On 2018-19 demand grew high by 2.6% to 211.6 million tonnes. This is one side the other side is the domestic output where it continues to fall. In 2015-16 output was 36.9 million tonnes, till march 2019 it was around 34.2 million tonnes. as the consumption rate keep on increasing and domestic output keeps on decreasing,

while we have to maintain proper precaution to store, handle and transport the fuel in oil and gas industry.

II. METHODOLOGY

A. Transportation of petroleum:

Petroleum transportation is the transportation of petroleum and its derivatives from one place to another. There were many ways in transporting they are by truck, rail cars, tanker vessels and through pipelines. The best method is practiced based up on the amount and the area where it wants to be transport. The biggest problem in transporting is the pollution and that the oil can spill. Petroleum oil is very difficult to clean and is very dangerous to living animals.

B. Steps in handling the fuel:

Gasoline and diesel fuels are highly flammable, so safety procedures have to be maintained everywhere never ever smoke near the fuel handling area, especially at the pumps. If a gasoline stick on our skin immediately wash with a soapy water to avoid potential skin irritations, further do not smoke or light a match until you are sure all the gasoline have been removed completely. If our vehicle had some gasoline spill remove it or wipe with a rag or paper towel. Gasoline must be used for its prescribed purposes not for kerosene heaters or lamp.

C. Safety Precautions in the stations:

Gas station is a busy place where lots and lots of vehicles and peoples were moving in and around, as a safety precaution, we recommend that our children should remain in the vehicle itself which have parked at the parking place.

D. Steps to store gasoline safely:

Gasoline can be dangerous if not stored properly. It should be stored when necessary with suitable container. Gasoline must be stored in an approved fuel tank or can. Because it may expand due to temperature so leave the room where the container have been placed for their expansion. keep the gasoline container tight and handle it gently and safely to avoid spills. Store gasoline in room temperature rather than placing it in sun, do not use or store gasoline near possible ignition sources such as electrical devices, other devices with a plot flame or spark never store gasoline in a glass or non-reusable plastic containers. Never use gasoline for cleaning purpose.

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III. RESULT AND ANALYSIS

As oil and gas industry is one of the world most expensive sector to minimize the accident the company which handling must follow the government standards like colour differences in pipe line, safety equipment's to handle the oil and gas. while in transportation the tanker must be specified with all necessary safety details to the public as well as the operator to avoid unwanted problem in the future. Moreover the gas also violate the environment also for that it should not be opened in dense populated region. All the oil and gas related works like storing, Refinery should be kept far away from dense populated area.

IV. CONCLUSION

In order to transport, store and use oil and gas for daily uses all safety standard and government prescribed norms also the equipment should be in working condition to avoid further problem in nearer future. Daily check of utilizing equipment and any leakage in storage tanks also need to be sure.

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