

POWER GEN SOLUTIONS OEM SAVES FUEL and MONEY at UNLOADING BAY AND DISTRIBUTION UNITS



Distribution network PD meter (Unit 04 Power House)



Customer Success

- Engine plant unloading accuracy was 0.9-1% and improved to 0.1-0.2% of measured volume

- On a consumption in excess of 5,000 litres per day, a saving of 1% was incurred

- Diesel distribution with zero drip operation, explosion proof fittings and enclosures and dependable data transmission to BMS

Application

Motor spirit is the most widely used commercial fuel in the world. Its variant, High Speed Diesel is routinely used by a prominent engine manufacturer headquartered in Pune, India. Every engine manufactured is tested for load versus consumption of HSD. Since production is high, large amounts of HSD are unloaded, distributed and consumed on a daily basis. HSD is an expensive liquid with costs rising to unprecedented levels. Therefore, it is imperative that its measurement be extremely accurate and repeatable, especially when usage is high.



Challenge

HSD is unloaded as raw material from mobile tankers supplied by oil companies. After unloading to central facility, it is distributed to test cells via a complex piping network. To unload HSD from tankers, customer would use the dipstick technique to measure the level of HSD in the compartment. This method is inaccurate due to foam formation on HSD that misrepresents the true level in compartment. Furthermore, small divisions on the scale cause human viewing errors.

Online custody transfer measurement with PD flowmeters is the only accurate method of flow measurement which makes identification of losses due to human error and pilferage possible.


Solution

Fluidyne Control Systems supplied their flagship 6600 Oscillating Piston flowmeters which are Positive Displacement type.

The meter offers unmatched accuracy of 0.1% of measured volume and repeatability of better than 0.01%. This accuracy is partly realized with additional Fluidyne air separator device which enables removal of air entrained HSD due to emptying tanker compartments and eliminates error of overstated volumes due to air measurement.

“Fluidyne’s flowmeters have been our preferred flow measurement instruments since 1995 and their service support is second to none”

- Senior Facility Manager, Technical Centre

The overall daily consumption of the Technical Center and Engine plant in the plant exceeds 5,000 litres.

Fluidyne’s 6600 has enabled the identification of losses due to pilferage, incorrect record via dipstick/air measurement and human viewing errors, thereby helping the customer save large amount of capital on diesel purchase and usage.

Data is seamlessly transmitted via Modbus to BMS and can be viewed by facility team on portable devices.



(L-R) – Diesel unloading point with master meter, Forklift filling area flowmeter, NHNT Testing cell inlet PD meter with master meter

“Fluidyne is able to prove flowmeter accuracy on field and their flowmeters ensure 100% repeatable measurement which is quintessential for diesel applications.

- Senior Facility Manager, Engine Plant