Port Talbot Site Operating Procedure
PT-OP-005: Emulsion Tank

1.00 PURPOSE AND SCOPE

The purpose of the plant is to receive Effluent from the Cold Mill Emulsion tanks. This effluent will contain oil and solids. This needs to be treated prior to discharge to the environment.

2.00 DEFINITIONS

None

3.00 REFERENCES

Suez Environment Ondeo IS operating procedure for plant

3.01 Supporting Documents

None

4.00 PROCEDURE

4.01 Effluent is transferred from the Emulsion Balance Tank and the Cold Mill Buffer Tank (Transfer Pumps P1, P2 & P3.) to No 1 and No 2 Tilted Plate Separator (TPS's). The Emulsion Balance Tank and the Cold Mill Buffer Tank are operated in parallel.

4.02 The TPS's will remove some solids from the effluent and float oil off. The sludge that is created is transferred by gravity to the Oily Sludge Tank.

4.03 Emulsion breaker and Lime is then dosed prior to the Flocculation Tank. The purpose of the Flocculation tank is to condition the effluent to allow better separation of clean water and oily sludge in the flotation tank.

4.04 Effluent passes to the Flotation tank, where air is bubbled through the effluent. The chemical pre-conditioning in the Flocculent tank enables oily sludge to attach to the air bubbles as they rise to the surface, from where they are removed by scrapers. Clean effluent then passes to the final water tank prior to discharge to the main site effluent system.