Sealquest Limited- EPR/BB3702UV/V002-Permit Variation

EJL004- Site Drainage/ water supply treatment and testing suite

Storage Bays/ water treatment

On receipt of the materials, it is stockpiled in concrete storage bays prior to processing, the material itself has a low moisture content and is self-supporting when stockpiled. The storage bays incorporate a drainage system to collect any rainwater runoff.
The drainage across the processing facility and the storage bays are connected to a $32m^3$ underground collection tank. The collected water is being used in the washing process.

The aggregate wash plant carries out all 'cleaning and separation' based on a closed water system where all of the water is recycled. The system pre-washes the inert waste before splitting the waste into different sized aggregates. Any slurry produced from the washing of the waste is then treated in the water treatment system.

Two filter presses are housed within the wash plant which compresses the slurry removes silt and clay from the sludge and solidified using a plate press which produces a dry cake at the end of the process. When the filter press has completed its cycle clean water is extracted from the material and the water channelled back into the system. The Site Drainage Plan referenced EJL002 explains the wash plant set up with the wash plant water catch tank and the site drainage water tank.

Water supply
The treated water can be continuously used as we top up water daily from the $2*30m^3$ above ground vertical black plastic clean water storage tanks, these are filled with the onsite bore hole and mains water supply when required. We do not extract more than $20m^3$ of water per day, and so, no license is required. Additionally, we have a water meter and float switch, and, therefore, this will not be exceeded.
There is no requirement for disposal of water as the water can continually be used once passing through the treatment system.

Storm water
Should the underground collection tank reach its storage capacity during extreme storm conditions, the concreted yard area has a drainage channel that diverts water towards the stage 1 silt trap to catch any solids. There are also 2 further storage tanks including an oil water separator which can provide an additional $60m^3$ of storage capacity.

In the unlikely event that the amount of water collected exceeds the $60m^3$ total storage capacity, the system will have the facility to pump any collected water back to the system and if required, it can be discharged to the local beck, Pond Creek which is about 0.5 miles to the northwest of the site.

Any suspended solids are trapped in the tank and are emptied as part of the maintenance regime. All silts will be reprocessed back through the wash plant.

Drought contingency plan

We have a capacity of 150m^3 in the vertical steel carbon tanks alongside the main wash plant. In addition to this, we have 32m^3 capacity in the underground tank, 60m^3 in the interceptor tanks and 60m^3 in the black storage clean water tanks. We would expect water loss between 5-10 % in a full day running the plant, and this can be replenished with a combination of storage water from various tanks on site and we have the top up facility of the bore hole water and mains water supplies.

Potential for Contamination/ testing suite

The facility processes inert materials arising predominantly from works to the utility's infrastructure, the risk of any contaminated materials being inadvertently processed is considered to be extremely low.
It is proposed that sampling of the water from both the underground water tank and the surface water collection system is undertaken as follows:

- One sample from each location to be collected and analysed at a United Kingdom Accreditation System (UKAS) accredited laboratory
- 2 samples monthly for the first 3 months
- Subject to the results of the analysis
  - 2 samples bi-monthly for the following 6 months
  - Subject to the results of the analysis
  - 2 samples quarterly thereafter

It is proposed that the analytical regime is agreed with the Environment Agency and would probably consist of Total Petroleum Hydrocarbons (TPH) including Benzene, Toluene, Ethylbenzene, and Xylenes (Mass Spectrometry) (BTEX (MS)), Heavy metals suite, Potential of Hydrogen (pH), Chemical Oxygen Demand (COD), Sulphate and Ammonia.

Summary
Only non-hazardous waste is accepted on site and as such the environmental risk assessment has identified the risk as low to habitats with all operations taking into account the sensitive nature of the Dearne Valley Wetlands and Carlton Marsh. If required, background samples can be taken and analysed pre-flood conditions to establish a baseline, although during flood conditions the flood overflow will be diluted once entering Cudworth Dike. A flood risk assessment identified the risk of flooding from pluvial and groundwater flooding as low. The site does currently undertake sampling of material on site with the results used to prove the suitability of materials for re-use, in-line with the concept of the circular economy and sustainable wastes management, and as approved by the Yorkshire Highway Authorities and Utilities Committee (YHAUC) Framework agreement (attached as a separate document) with reference to the Specifications for Reinstatement of Openings in Highways, Manual of Contract for Highway Works and the Specification for Highway Works. The location of the flood overflow point is identified on EJL011. This is located at the south end of Dearne Valley Wetlands. Cudworth Dike flows south away from the Dearne Valley Wetlands flowing towards the River Dearne approximately 2km south of the site. As such the risk of suspended solids

and the deterioration of the water quality has been identified as low risk to the Site of Special Scientific Interest (SSSI) Habitat.