

01. Waste water scheme needs to be assessed and rework

In consultation with our Consultant, we have assessed and revised the water requirement and waste water treatment, where 243 KLD waste water generated from Sulphuric Acid Plant will be completely recycle in Single Super Phosphate (SSP) manufacturing process and 70 KLD effluent containing hydro Fluosilic acid generated from SSP Scrubber, will be reused in effluent treatment plant to produce Sodium Silico Fluoride by-product 70 KLD neutral water discharge will be completely recycled in Granulation plant. A detailed diagram of effluent treatment plant is attached.

02. Water conservation measures to be adopted; such as rain water harvesting, recycle / reuse of waste water, accordingly revised water balance diagram to be submitted

We have developed 06 No. roofs top water harvesting pit and 04 Nos. of surface rain water harvesting pit during 2016. In the year 2017, we have further developed 05 Nos. surface water harvesting pit. For domestic purpose, we will adopt bio-digester technology developed by DRDO, where all the solid wastes will be degraded into clean water by the consortium of bacteria (Inoculum) and discharged water will be odorless / colourless neutral which will be re-used for irrigation inside the factory premises. 100% waste water will be recycled and re-used accordingly 15% water consumption will be reduced. A detailed revised-water balance diagram is attached herewith.

03. Solid / hazardous waste generation and its management to be elaborated.

i. Sulphur sludge in form of lump is generated as waste from Sulphuric Acid Plant manufacturing process during melting of raw Sulphur and it is pulverized with Rock Phosphate and used in SSP manufacturing process as a modifier.

ii Spent Catalyst is generated after screening of acid plant converter catalyst during annual shut down and maintenance, which is first collected and filled in poly liner bag and stored in MS drum under roof. This is being sold back to the catalyst manufacturer or to the approved agency by MoEF / SPCB.

iii. Spent oil is generated from DG set engine and various gear boxes is collected and filled in drums. Some of the quantities will be utilized for lubrication of EOT Crane rope, chain drive equipment and open girth gear and support rollers of Granulation plant and other machineries and rest quantity is sold back to the agencies for recycling of the oil.