

Problem Statement: Sludge Disposal

Background: The Optical Fiber (OF) division of STL manufactures high grade glass through deposition of SiCl₄ to be drawn into fibers to be used in optical fiber communication networks. Most of the SiCl₄ is manufactured inhouse at our Aurangabad facilities.

Crude SiCl₄ is manufactured by reacting Chlorine with Silicon metal; this crude SiCl₄ is purified within a distillation column, in which we are generating heavy boil out. Heavy boil out is neutralised with caustic which results in acidic sludge.

We also generate chemical sludge through WWTP (Waste Water Treatment Plant) operation from sediment from clarifier, mixed salt from MEE (Multiple Effect Evaporator) and neutralization of fluorides with lime.

Current Process: These wastes are classified as “Hazardous Wastes” - The current process of disposal of both types of sludge involves disposing to landfill through TSDF (Treatment Storage & Disposal Facility) according to State Pollution control board guidelines.

Ideal solution: We at STL are committed to become a “Zero Waste to Landfill” company and are looking for diversion of these sludge wastes away from the landfill without any environmental impact.

Looking for solutions which are (1) Environmental friendly option (2) Commercially competitive to current method.

Must haves – success triggers for responses:

- a. Zero risk to EHS (Environment, Health and Safety)
- b. Process should be commercially viable – Disposal cost of less than INR 8/kg (USD 0.11/kg)
- c. Should have successful references.

Deal breakers: Disposal cost of less than INR 5/kg (USD 0.07/kg)

About us: STL is a data networks solutions leader that designs, builds and manages smarter digital networks globally. It provides end-to-end network solutions for global telecom companies, cloud companies, citizen networks and the defence. The solutions include 5G and FTTx networks, intrusion-proof defence networks, rural broadband, data-centre networks, and much more. Committed to an inclusive Internet, the company is also developing programmable, open sourced and disaggregated solutions to enable CSPs improve their customer experience and lower their total cost of ownership.

STL is a public company, listed on BSE and NSE, with a broad global shareholder base with presence in over 100 countries. For more details: www.stl.tech

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