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PROPOSAL FOR 5 KLD ETP+STP

DATE 18-05-2022

Prepaid By:Sandeep Kumar
Saksham Water Solution
146, Shiv Ganga vihar, Dadupur Govindpur Haridwar
Contact: +91-8979549592

Kind Attention: Dear Sir

Subject: QUOTATION OF EFFULENT TREATMENT PLANT (05 KLD)

Dear Sir,

This has reference to the technical discussions we had with your good self on the subject. On the basis of the data's provided to us and the site visit undertaken, we have worked out our detailed Techno – Commercial proposal for your consideration as under:

- 1. Company Introduction
- 2. Basis of Design
- 3. Process Flow Diagram
- 4. Unit Description
- 5. Technical Specifications, Scope of Supply and Exclusions
- 6. Terms & Conditions
- 7. Price Schedule & Commercial Terms

We trust that you will take our offer in line with your requirement; however, if you require further information's/clarifications, please feel free to contact us.

Thanking you and assuring you of our best attention always, we remain.

Yours truly

INTRODUCTION

Saksham water Solution is a leading Water & Waste Water Treatment Company based in the India in Haridwar with a high standard of service and quality products as competitive prices. SWS have built a business on our reputation and objective is always to achieve the right result for every client implementing plans that are workable and simple. We provides an end to end solution to any water related issue and delivers world-class & cost effective products with positive results.

SWS provided Liasioning work from Pollution Control Boards and after sales services such as commissioning, annual maintenance contract, repair and troubleshooting for the supplied equipment's and products with team of highly experience staff and technicians.

Why Saksham water Solution ...?

- ✓ Cost Effective Projects.
- ✓ High Value Experience.
- ✓ Compact & Innovative Design.
- ✓ Best in After Sales Services.
- ✓ Technical & Co-operative Staff.
- ✓ On time Delivery.

Our Services...

- ✓ Water & Waste Water Treatment Plants.
- ✓ Reverse Osmosis & Softening Plants.
- ✓ Zero Liquid Discharge Plants.
- ✓ Ultra Filtration & De-mineralization Plants.
- ✓ Operation & Maintenance.
- ✓ Consulting & Liasioning Services.
- ✓ Commissioning & Up-gradation of the plants.

1. BASIS OF DESIGN

The proposed ETP is designed to treat Waste Water with following characteristics:

Operating Hours : 20

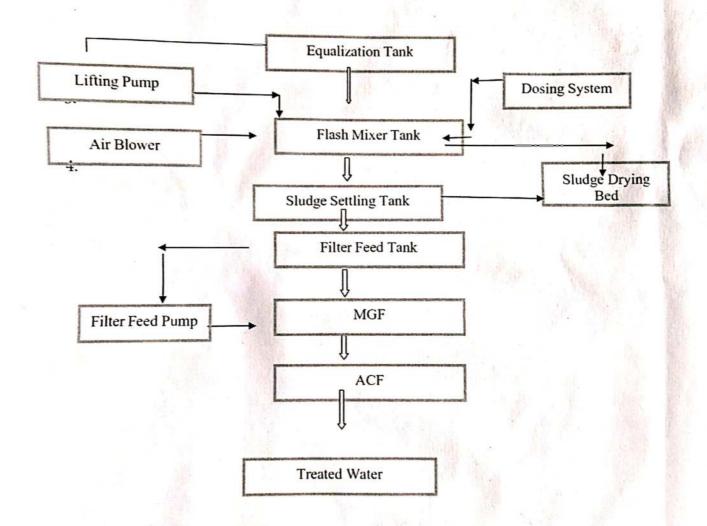
Mode of Operation: Semi-Automatic

Nature of Effluent : Common Average Flow per hour: 250 Ltr

Effluent parameters:-

The plant is designed to produce the following quality of treated effluent, averaged over 20hrs.In the fully stabilized Plant running continuously.

2. PROPOSED FLOW DIAGRAM



5. UNIT DESCRIPTION

EQUALIZATION TANK: - The wastewater comes from Screen chamber is collected in the Equalization Tank. The main purpose of Equalization tank to reduce the shock load, homogenize the sewage & Neutral the Ph.

FLASH MIXER: - Effluent from equalization tank shall be pumped to the flocculation tank through flash mixer where in optimum amount of coagulants (lime, alum & poly electrolyte) shall be added & flash mixer where in coagulant is mixed with effluent with the help of high speed stirring system in a mechanically controlled manner for solids to be settled as sludge in the clarifier. Ferrous sulfate solution and lime solution will be dosed in the raw waste water for the purpose of removal of color, BOD and content of raw waste water to some extent.

Chemical dosing in the plant:-

<u>Alum</u>: -Alum is a Water Treatment Chemical used in industries for flocculation of impurities in waste water. Alums are useful for a range of industrial processes. Alum is used to clarify water by neutralizing the electrical double layer surrounding very fine suspended particles, allowing them to flocculate (stick together). After flocculation, the particles will be large enough to settle and can be removed.

Lime: - Lime is used to remove chemicals that cause carbonate hardness. One of the most common ingredients in all waste water treatment processes is lime, which is used to raise the pH level of sludge, improve its odor and kill pathogens. Lime is most often administered through a large silo-like machine called a dozer that stores and disperses lime into a water source at given intervals. Dozers are the easiest and most effective way to use lime regularly in waste water treatment.

<u>Poly</u>: - The Poly dosing system is widely used throughout the industry for waste-water control. Poly electrolytes (also often referred to a "polymers" in coagulation processes) are synthetic or organic polymeric molecules having ionizable groups or charged groups along their chain. Cationic poly electrolytes are typically used to coagulate colloids that are negatively charged (the most common type)

• The mechanisms involved in the colloid destabilization by cationic polyelectrolytes are charge neutralization and bridging of colloidal particles

SLUDGE SETTLING TANK:-Effluent from aeration reactor passes to the SETTLING Tank, Remaining portion of sludge settled at the bottom sludge hopper. Settled sludge will draw off by a sludge pump to the sludge sump and the clarified water over flows through a channel to the clarified water tank.

<u>SLUDGE HOLDING TANK:</u> The purpose of sludge holding tank is to hold sludge collected from Settling Tank and feed to Filter Press or Sludge Drying Bed.

FILTER FEED TANK: - Filter feed Tank are common to most treatment plants. The objective of a contact tank is to bring as much water into contact with chlorine for as long as possible to achieve a certain level of disinfection to prevent the transmission of water borne disease.

<u>MULTIGRADE & CARBON FILTER:-</u> Clarified water then pump to the help of pressure feed pump under medium pressure through Multigrade filter & carbon filter for the adjustment of colour, odour, Ph & other some parameters. .

TREATED WATER TANK: In this tank water is collect after filtration. This water is use for irrigation purpose in garden & flushing purpose in toilets with the help of centrifugal pump

Technical Specifications of the Plant

Sr. No.	Description	Scope
51.140.	Description	Scope

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1.0	EQUALIZATION TANK	CLIENT
	Quantity: One	CLIENT
	Size: as per drawing	
	M.O.C: RCC	
	Make: As per client	
2.0	ETP MODULE COVEY	CANC
,	ETP MODULE COMPLETE WITH	sws
28.	CHEMICAL REACTION & SETTLLING TANKS	
	Quantity: One with two partition	
	Size: as per drawing	
	M.O.C: MS with Epoxy Paint Make: AE	
	Iwake: AE	
3.0	FILTER FEED TANK	Client
-10	Quantity: One	Hamilton, and
	Size: 500 ltr	
	M.O.C: PVC	
4.0	MULTI GRADE FILTER	SWS
1.0	Quantity: One	The second second
	Size:13" X 54"	
	Flow Rate: 1m3/hr.	
	M.O.C: FRP	
177	Make: Exsys/ Equ.	
5.0	ACTIVATED CARBON FILTER	sws
	Quantity: One	
	Size:13" X 54"	The sales
	Flow Rate: 1m3/hr.	
	M.O.C: FRP	
	Make: Exsys/ Equ.	N ARE
	EFFULENT LIFTING PUMP	37
	TREETING PLANT TO THE PROPERTY OF THE PROPERTY	
6.0	Quantity: One	sws

	M.O.C: C.I	
	Make: LEO//Crompton/Equ.	-11 -11
7.0	FILTER FEED PUMP Quantity: One Cap:250 ltr @ 10m head M.O.C: CI Make: Leo/Crompton/Equ.	sws
8.0	AIR BLOWER Quantity: One Type: Ring Capa:15m3@ 1500mmwg Make: ABL/SUNSUN/Equ.	sws
9.0	ATTACHED CHEMICAL DOSING TANK Quantity: One with three partition Capa:100 Liters M.O.C: MSEP	SWS
10.0	PIPE & FITTING Quantity: One Job M.O.C: UPVC/PVC Make: Prince/Ajay/ Equ.	sws
11.0	ELECTRIC CONTROL STARTER WITH CABLING Quantity: One Lot M.O.C: MS Powder Coated Make: AE	sws
12.0	SLUDGE DRYING BED Quantity: One Size: : as per drawing M.O.C: RCC	CLIENT
13.0	INSTALLATION & COMMSIONING OF	SWS

TH	E PLANT		
Qua	nntity: One Job	100	
	10 pt	The second second	
		100	

Note: The sizes of the various units mentioned above are indicative only and the exact sizing shall be done during the detailed engineering after the confirmation of the order.

COMMERCI	AL TERMS & CONDITIONS
PROPOSAL NO.	SWS/ETP/2020-21/085
DATE	05 FEB. 2022
TERMS OF PAYMENT	 80% of the ordered value as an advance. 10% of the ordered value After supplying all Mechanical Items at your site against BOQ. 10% of the ordered Value after installation and Commissioning of the plant.
TAXES	18% will be extra as applicable
DISPATCH	Within 3 week from the date of approval and receipt of advance.
VALIDITY	30 Days
FREIGHT & UNLOADING	Extra at actual
GUARANTEE / WARRANTY	Twelve (12) months from the date of mechanical commissioning of the equipment, whichever is earlier
EXCLUSION	Inlet/Outlet piping will be in client

CCO	
SCO	D٤
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- Electricity and fresh water
- Civil works and land preparation
- Lighting at site.
- All civil jobs like Collection tank and foundation
- Water for plant construction erection, testing and commissioning
- Electricity for erection, testing and commissioning will be provide on free of cost.
- Power supply within ETP Plant.

S. No.	Description	Total Price (Rs.)
1.	Supply, of Complete Mechanical and Electrical Items with pumps as mentioned in the List. Installation, Testing & Commissioning Charge	640000/-
No.		1 1 A

Our Price towards the supply and installation of the E.T.P. as per the scope of work mentioned in our above referred offer shall be Rs. 640000/-

Note:(Price as per above technical sheet additional work will be charged extra as per site condition)

For: Saksham Water Solution