



SOUTHWEST FLUID PRODUCTS, INC.

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WWTP – Pure Strike

40,000 GPD Wastewater Treatment Plant

Proposal # 22-128P

Prepared for: Pete Kramer

Attention to:

October 6, 2022

Description:

Southwest Fluid Products, Inc (SWFP, Supplier) shall provide one fabricated Wastewater Water Treatment System (WWTP) complete and ready for installation and operation in accordance with the requirements as specified. The wastewater treatment system shall be of the activated sludge type, specifically known as "Complete Mix Activated Sludge", designed to treat domestic wastewater. The complete system shall include all necessary equipment required for a fully operational WWTP in accordance with current TCEQ 217 design criteria.

One (1) Wastewater treatment plant rated to treat 40,000 GPD of domestic wastewater containing 300 mg/l BOD5. Plant to be designed and built-in accordance with engineer's plans and specification for effluent quality of 10/15/3 mg/l BOD5/TSS/NH3. Equipment includes all components delivered on site including blowers, chlorine equipment, and controls. Flow metering, and staff gage are included.

1. Technical Data

Parameters	Unit	Influent	Projected Effluent
Average Daily Flow Rate	GPD	40,000	
Peak Hourly (2-hr) Flow Rate	GPD	160,000	
Influent Temp	°C	25-35	
Elevation	Feet	500 AMSL	
Biochemical Oxygen Demand - BOD ₅	mg/L	300	10
Total Suspended Solids - TSS	mg/L	300	15
Total Kjeldahl Nitrogen - TKN	mg/L	65	
Ammonia – NH ₃	mg/L	46	
Total Phosphorous - TP	mg/L	9	3
Alkalinity	mg/L	400	
pH		6.5-8.5	

2. Scope of Supply

2.1 Sludge Holding Chamber

1	Sludge holding chamber (Air supplied from main blower motor)
1	Supernatant decant assembly w/ swivel pipe
SET	2" Coarse bubble diffusers – manufactured by SWFP
	<i>Chamber Design: 12'x12'x16'</i>

2.2 Aeration Tank

1	Manual bar screen
1	Aeration chamber
3	Blower Package TBD – Total 322 CFM Required
1	Air manifold system w/ diffuser drop assemblies
SET	2" Coarse bubble air diffusers – manufactured by SWFP
1	CP-1 Electrical control console enclosed in NEMA 4X Housing – Siemens
	<i>Chamber Design: 12'x12'x53'</i>

2.3 Clarifier Chamber

1	Circular, mechanical clarifier chamber
1	Sludge return assembly, w/ mechanical scraping arm
1	Scum return assembly, w/ mechanical raking arm
1	Clarifier mechanical drive unit - Bonfiglioli
	<i>Chamber size: 12'H x 16'D</i>

2.4 Disinfection

1	Chlorine contact chamber
1	Chlorinator - Steiner – S3403AA301N
1	Chart Recorder – Honeywell DR4500
1	Flow meter - Siemens LUT 430 Series Ultrasonic Meter
	<i>Chamber size: 12'L x 6'W x 5'H</i>

2.5 Service Walkway and Handrails

1	Non-skid galvanized walkway grating / access stairway (1 1/8" on 36" bracing)
1	Walkway, stairway, and handrail assembly w/ Kee Safety Klamps

2.6 Filtration

0	N/A
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2.7 Corrosion Prevention

1	Interior surface sandblast – See spec
1	Interior surface coating – See spec
1	Exterior surface sandblast – See spec
1	Exterior surface coating – See spec
1	Schedule 40 piping coating – See spec

2.8 Manufacturers Service and Warranty

1	One day of startup training on equipment and operations
1	One year (12 months) manufacturer warranty on material and equipment
	<i>*Warranty applies when equipment is used in accordance with O&M Manual</i>
	<i>*Warranty not to exceed eighteen (18) months from ship date</i>

3. Specifications

3.1 Materials / Structure

- Structural grade steel plated
- ASTM A-36 1/4in minimal thickness
- Joins by arc weld / walls to be continuous watertight welds
- Water containing tanks shall have maximum spacing of 36" bracing on end and partition walls
- Fabrication and erection shall conform to appropriate requirements of AISC – Building Specification
- All tank piping shall be Schedule 40 steel

3.2 Coatings / Corrosion Control

- Tank surfaces to be properly prepared prior to coating – smooth, clean, and dry
- Rust, dust, and mill scale to be removed by means of sandblast
- Interior (immersion) surfaces will receive near white blast cleaning SSPC-SP10
- Exterior (non-immersion) surfaces shall receive commercial blast cleaning SSPC-SP6
- Vessel interiors shall be painted with 12-14 mils of total dry thickness with Induron Coal Tar Polyurethane, Hempel high solid epoxy, or acceptable equivalent
- Vessel exteriors shall be painted with 12-14 mils of total dry thickness with Induron Coal Tar Polyurethane, Hempel high solid epoxy, or acceptable equivalent

3.3 Foundation

- Foundation Slab NOT provided by Supplier
 - Suggested: reinforced concrete slab or properly prepared rock, caliche pad
 - Slab / pad should be level with no more than 1/4" of tolerance per 10' width and length

3.4 Inlet Connections

- Inlet connections shall be one (1) 6" diameter 150# ANSI standard flange

3.5 Transport Dimensions and Weights

- Plant will ship in four (4) major components
 - Circular Clarifier Chamber – 12'Hx16'D
 - Aeration Chamber – 53'Lx12'Wx12'H
 - Digester Chamber – 16'Lx12'Wx12'H
 - Chlorine Contact Chamber – 5'Hx6'Wx12'L

3.6 Power Requirements

- 460 Volt, 3 Phase, 60 Cycle Service

4. Clarifications and Exceptions

4.1 General contractor to provide:

- All weather site access for delivery including tree trimming and fence removal
- Subgrade Stabilization / Foundation Pad
- Fencing and site security
- Plant plumbing and piping (yard, underground, mains, etc.)
- Electrical work including service to panels, conduit, lighting, heat tracing, etc.
- Filling of tanks for testing
- Geotechnical report, site survey, boring, etc. (where applicable)
- Electrical service to panels

4.2 Exceptions:

- Equipment offered by the Supplier is per SWFP standard design. If the equipment is subject to any alterations or deviation from our standard, by any party other than the Supplier, this contract is subject to price and / or delivery schedule amendment
- Cost of performance testing and analytical work is excluded from the above proposal
- Performance and payment bonds not provided by Supplier

4.3 Notes:

- Generally, this proposal includes the treatment plant, including all fabricated steel, electrical components, piping etc., on and inside the treatment plant
- Our air piping to begin at blowers and continue to and include plant air header
- We will furnish air pipe to chlorine tank.
- Inlet and outlet piping will end at first fitting outside of wall.
- All equipment to be factory built
- All components inside tank will be hot dip galvanized after fabrication or SS.
- All piping to be HDG and per specification do not require color coding.
- Excavation and all concrete work to be furnished by the customer.
- This proposal includes all drawings, O and M's and one day startup service.

5. Commercial

5.1 Budgetary Selling Pricing

- **40,000 GPD WWTP - \$529,500**
- Total price FOB jobsite / excludes any taxes or fees that may apply.

5.2 Equipment Manufacturing / Delivery Lead Time

- Estimated 30 – 34 weeks from initial payment and firm purchase order and approved submittals

5.3 Submittal Drawings

- Submittal drawings will be submitted within four (4) weeks of firm purchase order

5.4 Proposal Acceptance:

- Labor and equipment prices are valid for 60 days after bid date provided, given we receive a letter of intent within 15 days of bid.

5.5 Payment Terms:

- 20% when Supplier drawings are approved for production of equipment
- 70% billed monthly during fabrication at our facility
- 5% at startup
- 5% at final acceptance

5.6 Standard Terms and Conditions

- Southwest Fluid Products, Inc. specifically reserves the right to invoice for partial shipment. Invoicing for work performed on a monthly draw for materials and work performed shall be expected to occur.
- Proposal includes all equipment startup by factory personnel and training of operators in plant operation and servicing of equipment
- "As Built" drawings, and operations/service manuals included

5.7 Qualifications

- SWFP was founded in 1977 and has over 45 years of experience in wastewater treatment plant manufacturing, installation, and commissioning.
- Certified equipment operators, welders, and fabricators

5.8 References

- *Provided separately*

