Eckoff, Michael

From: Couto, Stephen <scouto@flaglerce.com>
Sent: Friday, January 3, 2020 9:18 AM
To: Eckoff, Michael
Subject: RE: Compliance Assistance Offer letter
Attachments: 20200103084733028.pdf

Good morning Michael,

Attached is our Best Management Practices and I was informed by our corporate that they sent an email with the copy of our insurance to the email that you have provided in previously.

Thank you

Stephen Couto
Service Manager

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From: Eckoff, Michael <Michael.Eckoff@FloridaDEP.gov>
Sent: Thursday, December 26, 2019 3:44 PM
To: Couto, Stephen <scouto@flaglerce.com>
Subject: Compliance Assistance Offer letter

Hello Mr. Couto,

Thank you for your quick call back. Attached is the letter that was issued for the inspection conducted on October 23, 2019. Please let me know if you have any questions.

Thank you,

Michael Eckoff
Environmental Consultant
Compliance Assurance Program
Central District
michael.eckoff@floridadep.gov
Office: 407.897.4308

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WASH RACK PROCEDURES

Start Up:

- Walk around & perform visual inspection of equipment
- Check for all necessary tools & equipment to be used is in place
- Check for power and proper operation of pressure washer
- At anytime during Start-up process, report any irregularities or malfunctions in the equipment to the Service Supervisor

Operation:

- Don proper wash rack attire and safety equipment
- Position the equipment/machine to be cleaned closest to the center of the pad
- In cleaning the machine, dirt & debris toward the center of the pad.
- Un-classified material remaining on the pad at the conclusion of cleaning the machine is to be placed in drums and designated for removal/disposal.

Shut Down:

- Remove any material remaining on the pad to a designated container
- Clean off all remaining dirt and direct water flow to the runoff pit
- Secure all tools and equipment
- Report any malfunctioning equipment and request repairs from Service Supervisor

Each item above to be checked upon completion Operator to sign and date below. A signed, completed page shall be kept for each day of Wash Rack operation.

_____ Date_____

Operator

CONTENTS OF THE BIOLOGICAL RECYCLING SYSTEM

Carefully unpack your new ESD W2W Recycling System. Check the contents against the packing list. Contact the freight line if a damage claim is required on any component. The following items are the basic equipment sent with your W2W system.

1. Biological Recycling System
   A. Transfer Pump
   B. Cartridge filter
   C. Regenerative blower
2. Manual

SPECIFICATIONS

Model	850
Maximum Flow	15 GPM
Electrical	230 Volt 1 Phase 30 amp
Operating Capacity	1,496 gallons
Biological Media	2304 sq ft
Pressure Pump (centrifugal)	3/4 hp
Cartridge Filter	25 Micron/60 sq ft
Regenerative Blower	1 hp
Dimensions L x W x H	10' x 5' x 5'3"
Net Weight	1,000 lbs

PURPOSE

The ESD W2W System was designed to offer a solution to waste disposal that is economical, efficient and foremost, *environmentally safe*. As we move into the 21st century, environmental waste codes are becoming more and more strict. Surcharges and fines are being mandated to companies that are unable to operate within acceptable guidelines. Chemicals used to treat wastewater often create by-products, which in themselves cause additional code violations. ESD has solved this problem by engineering a Biological System that utilizes *microbes*, not chemicals, to literally feed off of the waste in the water allowing the final output to be cleansed of any hazardous by-products. We at ESD realize the need to protect and respect our environment and therefore, our W2W Systems operate under specific microbe guidelines, utilizing microbes that (1) are natural, not genetically formulated and (2) will not cause disease.

ESD has been involved in wastewater treatment products since 1993. Our commitment to quality is passed on to our customers. Our commitment to the environment is passed on to our children.

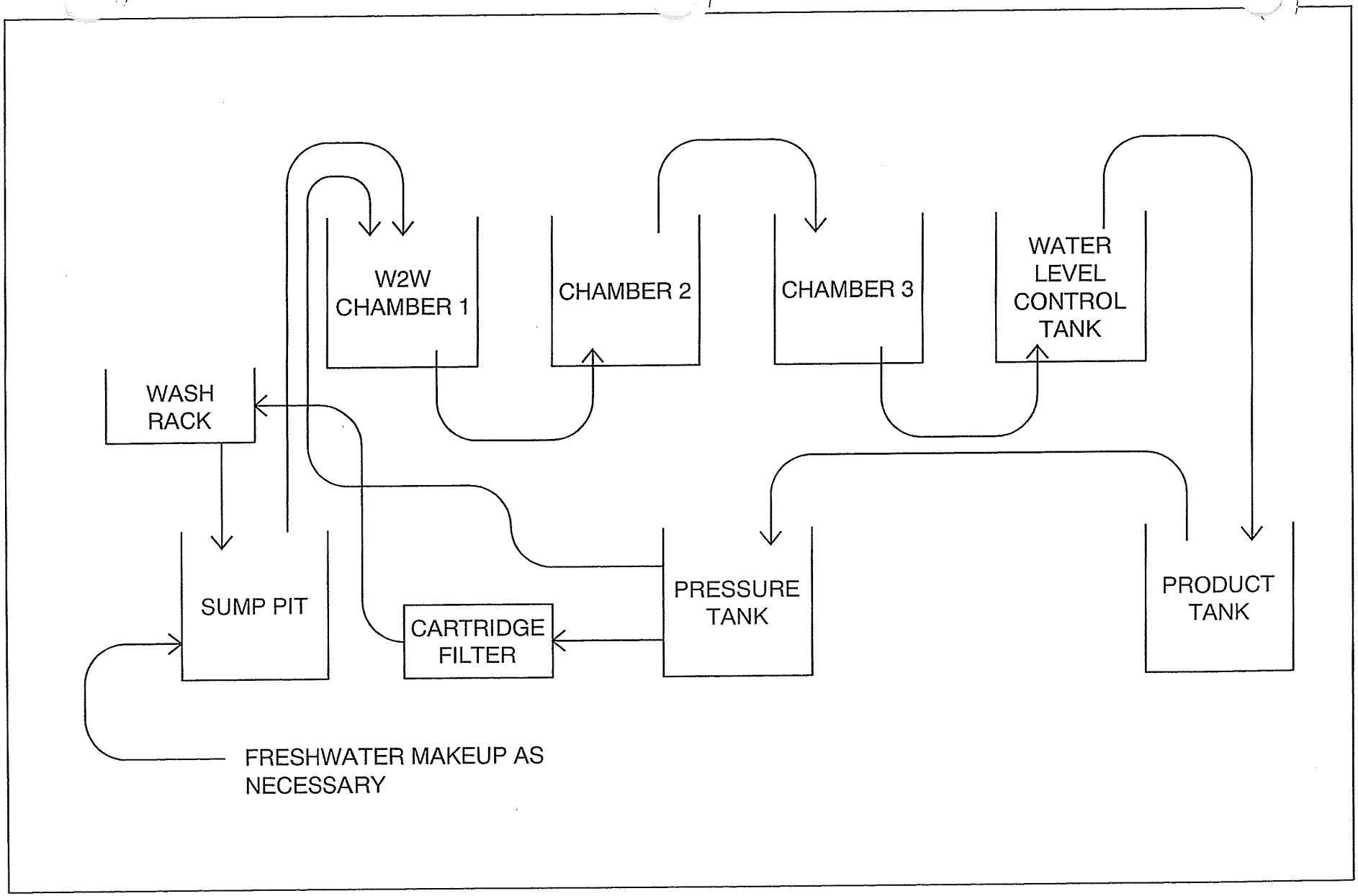
WASTE2WATER SYSTEM FLOW CHART

The Sump Pump draws water from the sump pit and brings it to the inlet of the W2W System. The W2W Tank is made up of several sections that are separated by weirs. The wastewater enters the top of the First Chamber and moves down through the Biological Media. The media packs provide a surface for the microbes to live on. As water passes through the Biological Media, the microbes feed off of the organic compounds in the water, producing by-products of carbon dioxide and water. Microbes also need oxygen to live; they receive this by a Regenerative Blower, which blows the air into an Air Diffuser Line. The airflow is controlled by a Blower Valve to vent some of the air that is pumped by the Regenerative Blower. From there the air bubbles up through the Biological Media. Without the air in the W2W System the microbes will not be able to live.

From the First Chamber, the wastewater moves under the weir into the Second Chamber, rising up through the Biological Media and over the weir into the Third Chamber. The wastewater then flows down through the Biological media for a final cleansing before moving into the Water Level Control Tank. This very small section has a weir positioned to control the level of water in the W2W Tank. The water moves over this final weir and into the Product Tank. Water is pulled from the Product Tank by the Transfer Pump and moved into the Pressure Tank. This tank holds water at 30-50 PSI. From there, the water flows in two paths:

1. A Recirculating Line returns treated water to Inlet. The flow is controlled by the Recirculating Valve, which should be opened to 1 GPM. This allows the water to pass through the W2W System a second time.
2. Another line sends water through the Cartridge Filter Valve to the Cartridge Filter. The Air Bleed Valve must be opened to let air escape while the Cartridge Filter fills with water. Once full, and the Air Bleed Valve is closed, the water passes through the Polyester Fiber Filter, which reduces the contaminants down to 25 microns. A Cartridge Filter Drain Valve is located at the bottom of the Cartridge Filter for filter cleaning purposes. This valve should be closed during the water treatment operation. The water moves out of the Cartridge Filter to be used externally.

When water is needed for washing, water is sent from the Filter to the Pressure Washer Outlets and then to a Pressure Washer or Garden Hose. If the Sump Pump water level is low, water is added through the Fresh Water Makeup to the Clean Water Well. The proper level is maintained in the clean water well via clean water over flow.



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FLOW DIAGRAM
WASH RACK

TAMPA

FLAGLER
CONSTRUCTION
EQUIPMENT

OPERATION

ADDING MICROBES:

1. Open and pour four 500mL containers of the ESD prepackaged microbes into the first chamber of the W2W System
2. Begin your normal cleaning operation.
3. Continue inoculations on a weekly basis to ensure the W2W System is operating at optimum efficiency.
4. Monitor the system closely the first few days to ensure smooth operation. See Troubleshooting if problems occur.

The ESD microbes are most active and effective when the water temperature is between 45°F and 100°F. For climates where freezing temperatures are experienced, the W2W System should be enclosed in a heated room.

MAINTENANCE

Daily Maintenance:

1. Ensure that the blower pumps are operational.
2. Open drains on the bottom of the solid separator (to clear sludge) until the water is clear.
3. Clean grass head and open drain until water is clear.
4. Clear sumps of sludge/sand and clean.
5. Dump grass cart and clean.
6. Hose off wash pad.

Weekly Maintenance:

1. All of the Daily steps.
2. Remove filter from filter house clean and replace.
3. Add 1 500ml bottle of ESD microbes every week to ensure healthy colony growth in W2W system. The media pack should feel "slimy" to the touch when the microbe colony is established.

Monthly Maintenance:

1. All of the weekly maintenance steps
2. Check PH of the water should not be lower than 6.8 or higher than 7.8 at any given time.
3. Check control panel for proper wiring and loose contactors.
4. Check clear water well for proper level.
5. Adjust fresh water makeup valve accordingly.
6. Check and adjust re-circulation line.
7. Check process pump and float switch for operation.
8. Replace filter screen on grass head.
9. Drain the systems solids chamber.
10. Check Bladder Tank pressure.
11. Check hoses and spray nozzles.

* If soap is necessary for washing, the soap should be of a neutral PH (approximately 7)

Cartridge Filter:

When the water flow decreases significantly from the Pressure Washer Outlets, the Cartridge Filter should be cleaned using a garden hose or pressure washer.

1. Close the Cartridge Filter Valve.
2. Open the Cartridge Filter Drain Valve to allow water to be released from the Cartridge Filter.
3. Open the Air Bleed Valve to allow air to displace the outgoing water.
4. When water is drained from tank, loosen and remove Clamp Assembly.
5. Pry off Filter End.
6. Remove the Filter Element.
7. Use a garden hose to spray clean the filter.
8. Rinse out the Cartridge Filter Housing.
9. If Filter is in good condition, reinsert it into the Cartridge Filter Housing. If excessive wear is noted, replace with new Filter.
10. Inspect O-Ring and replace it on the top of the Cartridge Filter Housing.
11. Reinstall Filter End.
12. Reinstall Clamp Assembly.
13. Close the Cartridge Filter Drain Valve 4.
14. Open the Cartridge Filter Valve.
15. Leave the Air Bleed Valve open as the tank fills with water. Close completely when water begins to escape from the Air Bleed Valve.

WINTERIZING:

*** Some of these tasks require electrical skills and should only be performed by a certified or trained person.**

1. Turn switch labeled "Process Pump" to the "OFF" position.
2. Open cam lock fitting on green hose and remove from grass separator.
3. Direct the green hose off the wash pad area; connect to a storage container, or a vacuum truck.
4. Turn switch labeled " Process Pump" to the "ON" position.
5. Open black and yellow ball valve on grass separator.
6. Using a red pressurized hose rinse all dirt, sand, and mud from solids separator.
7. Open black and yellow ball valves on bottom of solids separator.
8. Using a red pressurized hose rinse all dirt, sand, and mud from solids separator.
9. Open black and yellow ball valve on system solids chamber.
10. Using a red pressurized hose rinse all dirt, sand, and mud from solids chamber.
11. Turn switches labeled "Blower" and "Pressure Pump" to the "OFF" position.
12. Turn fresh water supply off at designated valve.
13. Open ball valves or remove plugs on back of unit. ESD recommends installing ball valves on the back of system if not already equipped.
14. Remove Bio-media from interior of system.
15. Using a fresh water supply hose thoroughly rinse Bio-media and interior of system. Replace Bio-media.
16. Remove, drain, and store pressure pump and associated piping.
17. Remove, drain, and store filter housing and associated piping. Filter should be removed from housing and air-dried prior to storing.
18. Remove and store blower.
19. Turn switch labeled "Process Pump" to the "OFF" position.
20. Remove, drain, and store process pump and associated piping.
21. Remove excess water and dirt from shallow sump. Insert a 2" plumbers test plug into the coupling inside the shallow sump. Place 2 gallons of biological antifreeze into the shallow sump. Replenish antifreeze as necessary.
22. Using compressed air, blow line from green hose to round sump ensuring all water is evacuated. Insert a 2" plumbers test plug into the full coupling inside the round sump. Reattach green hose to grass separator.
23. Remove excess water and dirt from round sump.

24. If equipped, open winterization port, place 5 gallons of biological antifreeze into the round sump. Replenish antifreeze as necessary. Fill a heavy-duty lawn or leaf bag with straw or packing peanuts and insert into the round sump.
25. Ensure water is removed from the fresh water line.
26. Ensure all valves and/or ports are in the open position to allow draining.

* Your equipment is now properly winterized/decommissioned and prepared for storage. Please remember that these are the minimal requirements and may not apply to every application. Should you have any question pertaining to proper storing of your ESD wash system, feel free to cal 800-277-3279.

TO OPERATE UNIT AFTER WINTERIZING:

1. Follow Installation Instructions on page 12.
2. Retighten union connection in Air Diffuser Line.
3. For ease of reinstalling Biological Media, place media at an angle. After media is replaced, the Hold Down Angles must be fastened into the W2W Tank before filling. This prevents the Biological Media from rising out of the tank and also supports the tank sides.
4. Follow Prestart Procedures on page 12.
5. Follow Start-up Procedures on page 12.
6. Follow Procedures for adding Microbes on page 13.

TROUBLESHOOTING

SYMPTOM	PROBABLE CAUSE	REMEDY
ELECTRICAL		
No power at Control Panel.	Power failure to Control Panel.	Check circuit breaker at power source or contact your local distributor.
Power Indicator Light is OFF.	Blown fuses inside Control Panel on step down transformer.	Check fuses, replace if necessary. If fuses are OK, contact your distributor.
SUMP PUMP		
Sump Pump will not run.	Float is not adjusted correctly in the Sump Pit.	Readjust.
	Float 1 is defective.	Replace.
	Level Limit Switch in the Product Tank has flipped up.	Push Level Limit Switch down, or remove excess water in the Product Tank.
	Circuit overload/breaker has tripped.	Reset breaker or replace fuse at power source.
	Motor overload.	Allow motor to cool. Motor will automatically restart when cool.
	Motor is defective.	Replace motor.
Sump Pump motor starts and stops frequently during operation.	This is a common occurrence.	Allow pits to fill.
	Sump Pump impeller is clogged.	Disconnect power and unclog impeller.
	Motor overload.	Allow motor to cool. Motor will automatically restart when cool.
	Sump Pit is not large enough.	Expand size of pit.
Sump Pump runs, but there is little or no water discharge.	Water level is below pump inlet.	Ensure Float 1 is not caught in plumbing.
	There is an air lock in the Sump Pump.	Manually fill the inlet pipe with water. Turn the Sump Pump on and off several times.
	Low voltage.	Ensure wire size is capable of handling the rated amperage of the unit. If wire size is correct, contact your distributor.
	Sump Pump impeller is clogged.	Disconnect power and unclog impeller.
	Worn pump parts.	Contact your distributor.
Sump Pump will not turn off.	Defective switch inside Float 1.	Replace.
	Pump is air locked.	Cycle pump in one minute increments several times to clear air from pump. If system includes a check valve, a 3/16" hole should be drilled in the discharge pipe approximately 2" above the discharge connections.

TROUBLESHOOTING

SYMPTOM	PROBABLE CAUSE	REMEDY
W2W-SYSTEM TANK		
Water will not flow into the W2W Tank.	Sump Pump is not turned on.	Move Sump Pump Switch to "ON".
	Circuit breaker has tripped or is "OFF".	Reset or turn breaker "ON".
	Dirt is lodged in the inlet check valve.	Clean
	Sump Pump impeller is clogged.	Disconnect power and clean.
	Lines or valves contain frozen water.	Allow to thaw. Inject with warm water if necessary.
	Freshwater Make-up solenoid malfunctioning.	Repair or replace.
	Freshwater Make-up Float #4 in Product Tank tangled or malfunctioning.	Repair or replace.
TRANSFER PUMP		
Transfer Pump will not run.	Circuit overload/breaker has tripped.	Reset breaker or replace fuse.
	Motor overload.	Allow motor to cool. Motor will automatically restart when cool.
	Transfer Pump Float #3 tangled or malfunctioning.	Repair or replace.
	Pressure Switch malfunctioning.	Replace.
Transfer Pump runs but there is no water discharge OR Transfer Pump cycles excessively.	Pump sucking air.	Eliminate leaks and tighten all connections on intake line.
	Check valve is leaking or stuck in closed position.	Clean or replace as necessary.
	Lines or valves contain frozen water.	Allow to thaw. Inject with warm water if necessary. Ensure the Sump Pit remains above freezing.
	Pump impeller is obstructed.	Contact your local distributor.
	Pump motor is operating below maximum RPM.	Contact your local distributor.
	Too much pressure in Pressure Tank.	Check PSI in Pressure Tank with no water in tank. Pressure should be 18 PSI/1.24 Bar.
	Pressure Switch needs adjusting.	Pressure Switch should be set to start Transfer Pump at 20 PSI/1.4 Bar.
Transfer Pump is hot or turns off.	Low voltage.	Ensure wire size is capable of handling the rated amperage of the unit. If wire size is correct, contact your local distributor.
	Motor overload.	Allow motor to cool. Motor will automatically restart when cool.

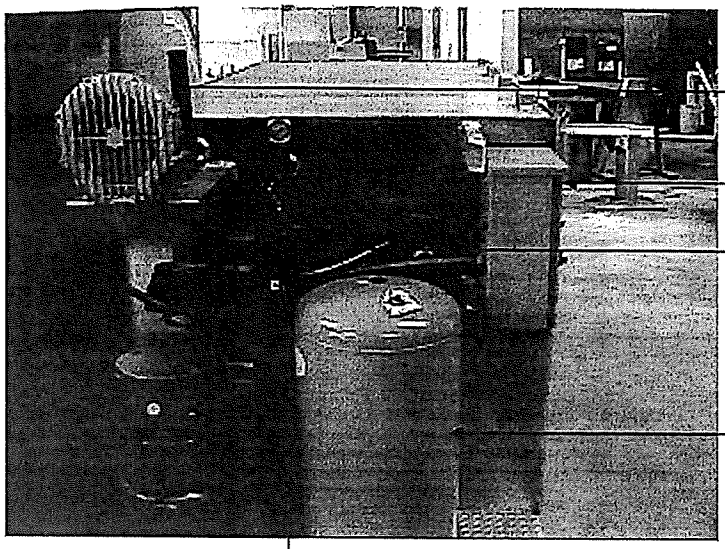
TROUBLESHOOTING

SYMPTOM	PROBABLE CAUSE	REMEDY
SHAFT SEALS		
Water is leaking at Transfer Pump.	Damaged mechanical seal.	Seal ran dry. Ensure seal chamber is filled with liquid.
Short seal life.	Unexpected temperature and chemical usage.	Replace.
ODOR		
Excessive odor in W2W System.	Not enough microbes in the system to maintain water balance.	Increase the microbe inoculation.
	Too much waste water for microbes to digest.	Use of chemical injection or use of an additional W2W System may be necessary.
	Water remains dormant in the system too long causing bacteria buildup.	Eliminate leaks or tighten connection.
	PH of water in system is to high or low.	Check chemicals being used and adjust pH to 7.
WATER FLOW		
Air shoots from Water Outlet.	This is a common occurrence while pump is priming.	Air will stop shooting from the water outlet when pump is primed.
	Transfer Pump is sucking air at suction inlet.	Eliminate leaks or tighten connection.

TROUBLESHOOTING

SYMPTOM	PROBABLE CAUSE	REMEDY
BLOWER		
Blower will not run.	Blower Switch is off.	Turn Blower Switch on.
	Circuit overload. Breaker has tripped.	Reset breaker or replace fuse.
	Motor overload.	Allow motor to cool. Motor will automatically restart when cool.
Blower runs but little or no air to outlet.	Plumbing unions not tight.	Tighten unions
	Inlet filter blocked or obstructed.	Remove foreign object.
	Blower filters dirty or clogged.	Contact your local distributor.
	Blower motor is operating below maximum RPM.	Contact your local distributor.
Blower is hot or turns off.	Low voltage.	Ensure wire size is capable of handling the rated amperage or the unit. If wire size is correct, contact your local distributer.
	Motor overload.	Allow motor to cool. Motor will automatically restart when cool.

PARTS DESCRIPTION



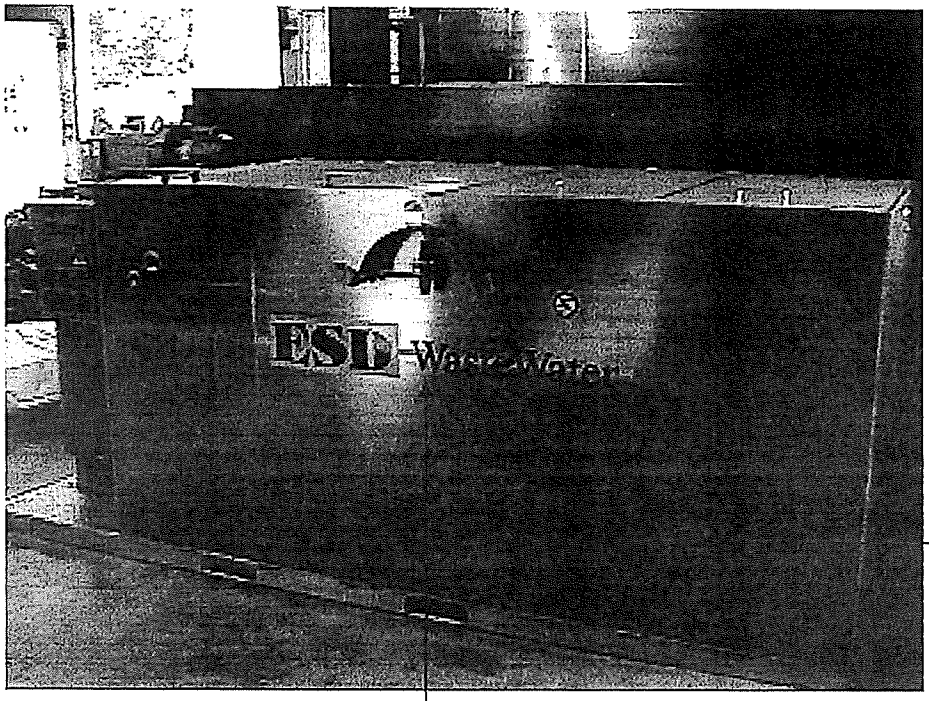
Blower Assembly

Control Panel

Wash Pump Assembly

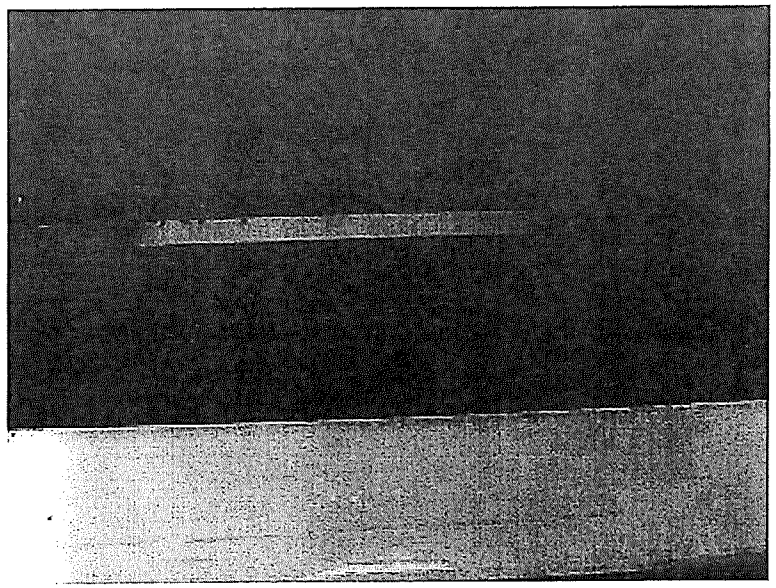
Pressure Tank

System Outlet Pressure

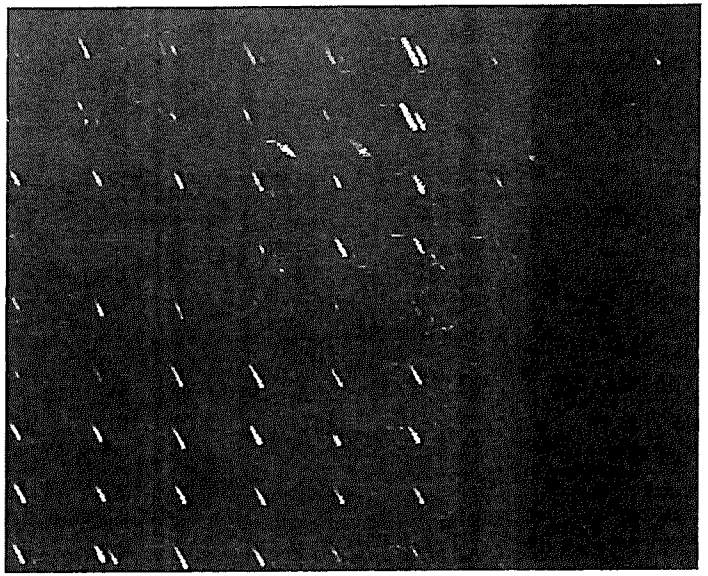


Bioreactor

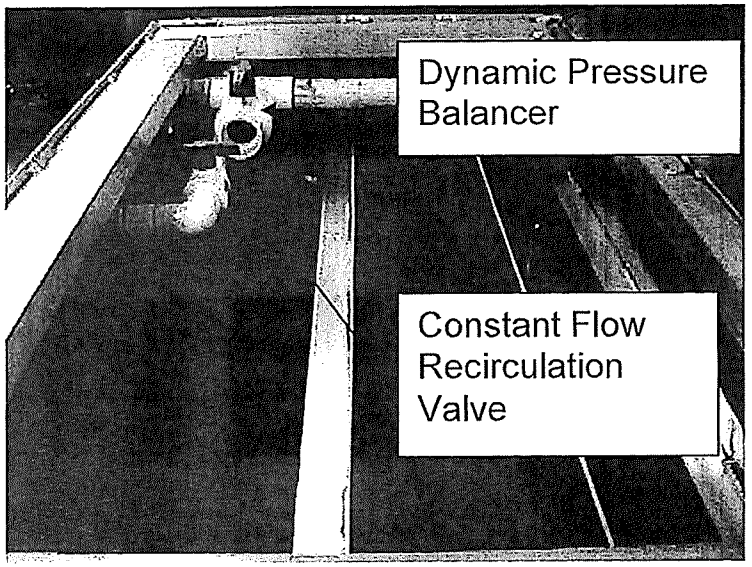
System Outlet with Hose Rack

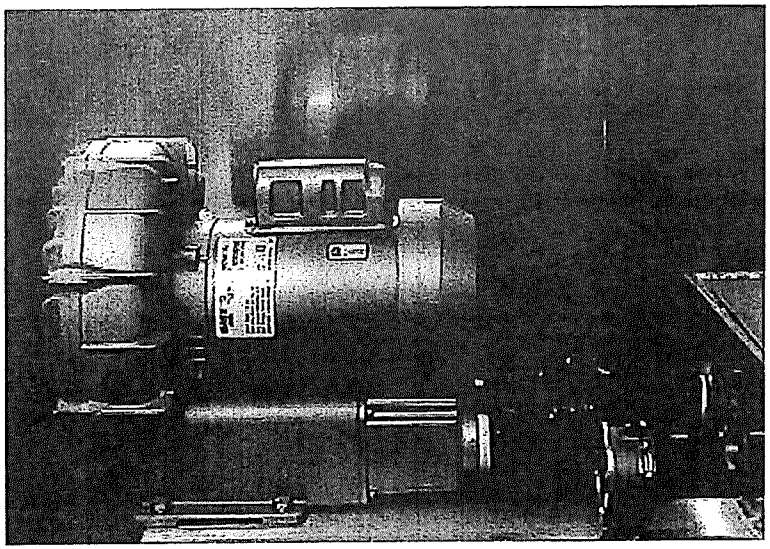


Bioreactor

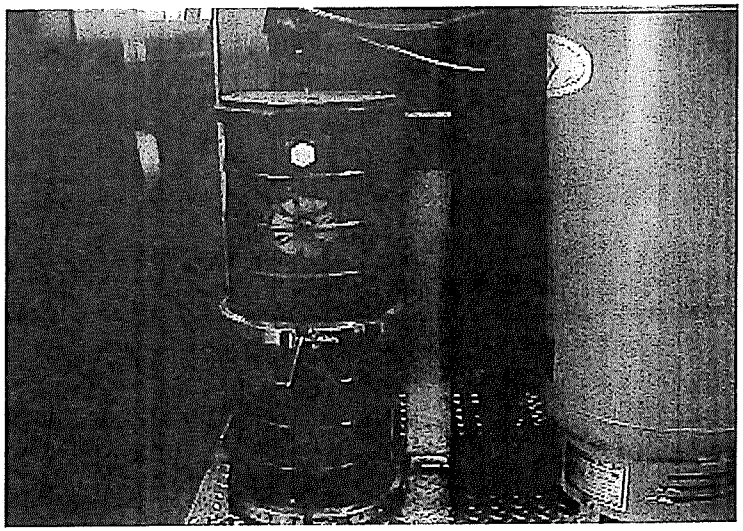


Fixed Film Biomedia



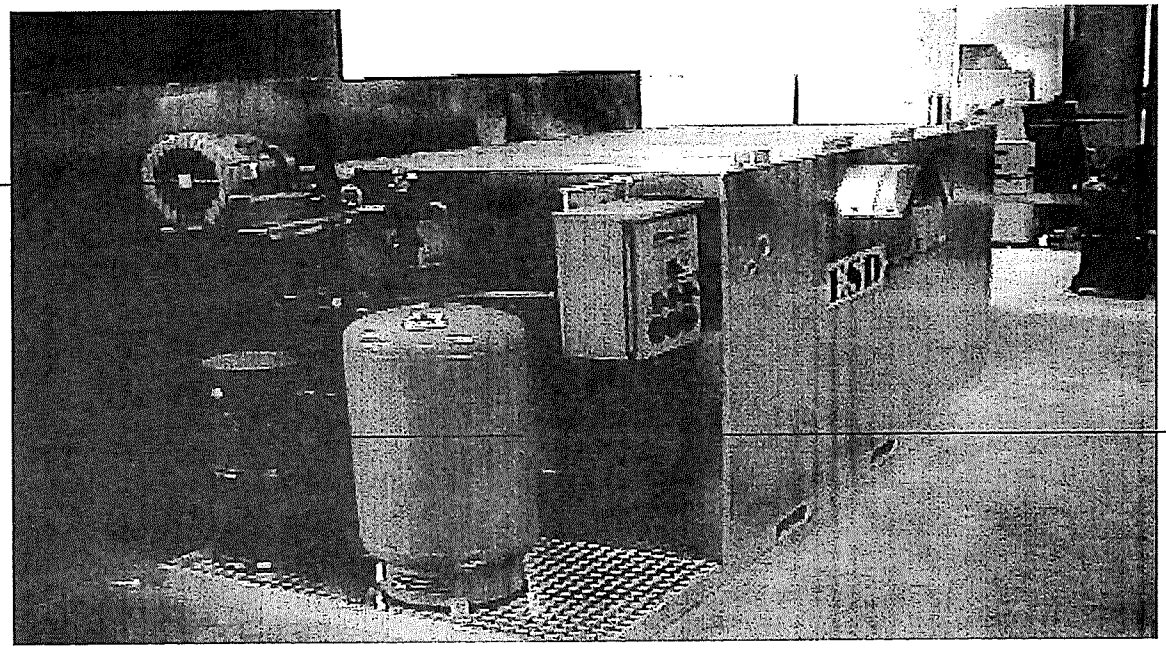


Blower Assembly

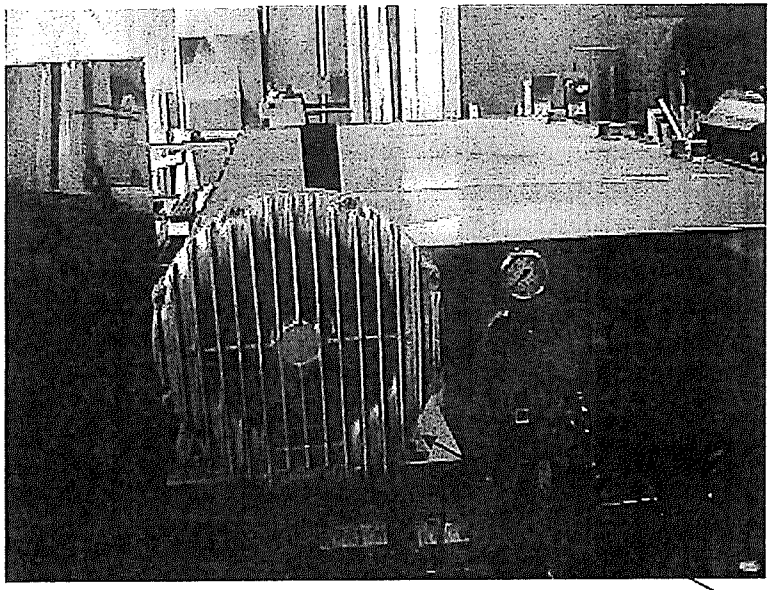


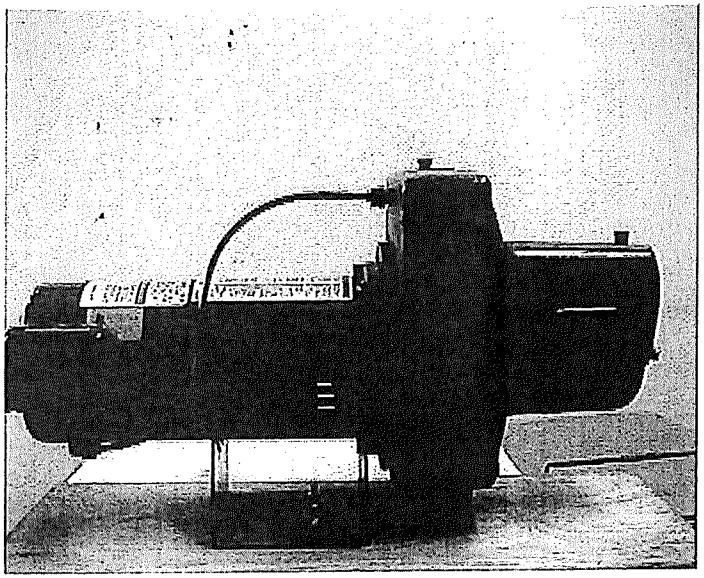
Cartridge Filter Housing

Blower Assembly

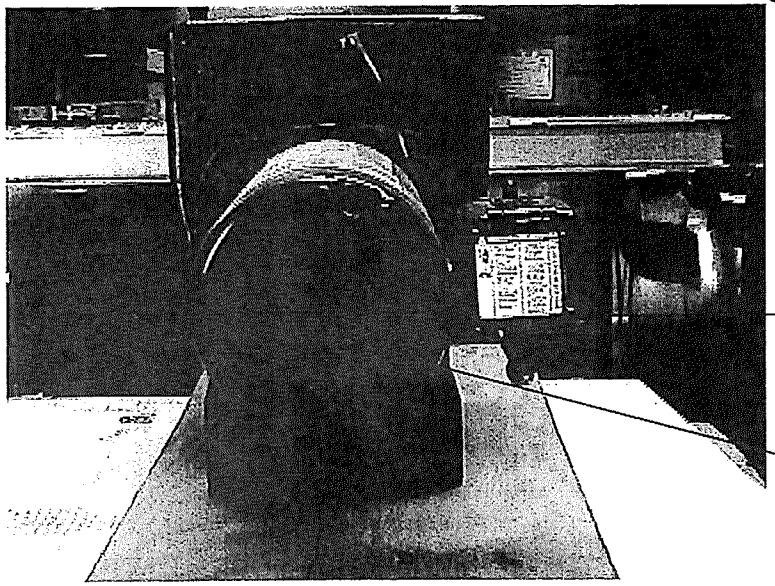


Cartridge Filter Housing





Wash Pump Assembly



Blower End View

Wash Pump Pressure Switch

Wash Pump Motor