ENVIRONMENTAL STRATEGIES CORPORATION
300 Corporate Center Drive, Suite 200 ▪ Moon Township, PA 15108 ▪ (412) 604-1040 ▪ Fax (412) 604-1055

May 29, 2003

Mr. Christian Matta (3HS23)
Remedial Project Manager
U.S. Environmental Protection
1650 Arch Street
Philadelphia, PA 19107

Mr. Tom Bass
Remedial Project Manager
WV Division of Environmental Protection
1356 Hansford Street
Charleston, WV 25301

Re: Transmittal of Operation and Maintenance Plan,
Big John salvage Superfund Site, Fairmont, WV
ESC Project No. 457303

Dear Chris and Tom:

On behalf of Reilly Industries Inc. (Reilly), Environmental Strategies Corporation is pleased to submit the enclosed Operation and Maintenance Plan for the water collection and treatment system operated by Reilly at the Big John Salvage Superfund Site. I am sending one copy to each of you. If you need additional copies, please call and I will be happy to transmit more.

If you have any questions about this report or the plans or activities described in it, please call either Tamra Kress at 317-248-6511 or me at 412-604-1040.

Sincerely,

Douglas B. Taylor, P.E.
Senior Project Director

DBT:ckh

Enclosure

docs/Reilly/457303/O&M Plan Transmittal.doc

cc: Tamra Kress, Reilly

ENVIRONMENTAL STRATEGIES CORPORATION
300 Corporate Center Drive, Suite 200 ▪ Moon Township, PA 15108 ▪ (412) 604-1040 ▪ Fax (412) 604-1055

OPERATION AND MAINTENANCE MANUAL
BIG JOHN SALVAGE HOULT ROAD SITE
FAIRMONT, WEST VIRGINIA

PREPARED

FOR

REILLY INDUSTRIES, INC.

INDIANAPOLIS, INDIANA

PREPARED

BY

ENVIRONMENTAL STRATEGIES CORPORATION

MAY 29, 2003

docs/Reilly/457303/O&M Plan/O&M Plan Reilly Version.doc

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List of Acronyms

BTEX	Benzene, toluene, ethylbenzene, m&p-xylenes, and o-xylenes compounds
EPA	United States Environmental Protection Agency
HASP	Health and Safety Plan
HDPE	High density polyethylene
O&M	Operation and Maintenance Manual
Reilly	Reilly Industries, Inc.
SSR	Sharon Steel Run
TAL	Target analyte list
TCL	Target compound list
TSS	Total suspended solids
WWTP	City of Fairmont Wastewater Treatment Plant
NAPL	Non Aqueous Product Layer
RA	Removal Action

1.0 Background

On behalf of Reilly Industries, Inc. (Reilly), Environmental Strategies Corporation has prepared this Operation and Maintenance (O&M) Manual for the Big John Salvage Hoult Road site located in Fairmont, Marion County, West Virginia (Figure 1). This document was prepared in response to the requests from the United States Environmental Protection Agency (EPA) via letter dated April 17, 2003. The O&M manual provides the information appurtenant to successful operation and maintenance of the seep collection and treatment system installed by Reilly in response to the Administrative Order for Removal Response Action, Docket No. III-2000-026-DC (Order) issued by EPA.

The system was put into operation on March 31, 2001 and continues to operate as designed. Based on system readings, the runtime efficiencies as of May 1 were calculated to be about 96 percent for the East Tributary and about 98 percent for the Middle Tributary.

2.0 System Description

The system is comprised of two seep collection systems consisting of underdrains and pump stations, and a treatment system consisting of filtering and carbon absorption. The collection and treatment system is described in the following sections. Figure 2 shows the location of the system components at the site.

2.1 Seep Collection System

Seep collection systems were installed in the East and Middle Tributaries. The purpose of the seep collection systems is to collect groundwater and associated NAPL that had previously discharged to the surface along the upper reaches of the East and Middle Tributaries. The collection systems meets the requirements of both Section 8.3d and 8.3e of the Order which specifies that Reilly stop the discharge of hazardous substances to surface water and stabilize source areas.

The design for the seep collection system was verbally presented and approved by EPA and WVDEP on December 7, 2000. A design memorandum (with drawings) was submitted to EPA and WVDEP on December 14, 2000.

2.1.1 Underdrain Construction

The seep collection system is designed to collect groundwater and NAPL but allows surface water runoff to bypass the collection system and enter SSR. Using this design, the volume of collected water is kept relatively constant, and storm events do not flood the system. Figure 3 provides details on the construction of the seep collection system.

The primary components of the seep collection system are the following:

- Non-woven geotextile, between native shale and the placed gravel layer (east only), and at the bottom of each collection system
- Perforated high density polyethylene (HDPE) collection pipe (east tributary only)
- Washed gravel
- Geonet composite drainage layer
- Low permeability clean fill
- Precast concrete manhole

- Submersible pump with automatic on/off switch based on water level between gravel and SSR
- Soil-bentonite cutoff wall downgradient of the manhole area

The East Tributary seep collection system extends from the upstream limits of the seepage in the East Tributary to the confluence with SSR. In the Middle Tributary, the collection system extends from the top of the slope to the confluence with SSR (See Figure 2).

The seep collection systems were installed by grading the bottom and sides of the excavated area so that a positive slope was maintained and a suitable subgrade was provided for the composite drainage layer. The composite drainage layer provides a pathway for seepage from the excavation sidewalls to drain into the gravel and discharge to the manhole. The drainage layer material is situated along the excavated sidewalls to allow seep capture.

There is a non-woven geotextile in the bottom of the East Tributary excavation. The purpose of the geotextile is to eliminate mixing of the native shale layer with the gravel layer of the collection system. By isolating the gravel and the native material with a geotextile, the potential for clogging the collection system with fines is greatly reduced.

A 4-inch diameter perforated HDPE collection pipe lies along the center of the East Tributary excavation. There are three cleanouts with threaded end caps along the length of the East Tributary. Due to the steep slope and width of the Middle Tributary, a collection pipe was not installed.

Approximately 12 inches of American Association of State Highway and Transportation Officials (AASHTO) washed No. 1 gravel lies over the pipe and geotextile in the East Tributary. In the Middle Tributary the gravel was placed directly on the bottom of the excavation. At the base of the Middle Tributary the gravel depth increases to approximately 3.5 feet due to the steep slope. The gravel layer (and the perforated HDPE pipe in the East) serve as a collection and conveyance medium for groundwater and NAPL that enter the collection system. The gravel layer is covered with the non-woven geotextile to prohibit soil from entering and clogging the gravel and HDPE pipe layer.

2.1.2 Collection Manholes

Four-foot diameter, pre-cast concrete manholes provide the collection sumps for the seep collection systems. The manholes are located upstream of the confluence with SSR. The manholes are keyed approximately 1 foot into the bedrock to allow complete drainage of the seep collection systems. The manhole lids extend above the estimated high water level in each of the collection systems.

There is a submersible effluent pump in each manhole. The pump in the Middle Tributary is a Goulds Model 3885 WE15HH, and the pump in the East Tributary is a Goulds Model 3885 WE10H. Appendix A contains the manufacturer cut sheets.

A soil-bentonite cutoff wall is in place at the downgradient portion of the collection system in both the East and Middle Tributaries. This subsurface cutoff wall reduces the potential for flow to bypass the collection manholes. The cutoff wall acts as a hydraulic barrier to prevent subsurface flow towards SSR.

2.1.3 Conveyance Utilities

Conveyance piping and electrical conduit are installed in a trench. In the East Tributary, the conveyance pipe is located in the gravel layer of the collection system from the manhole to a point halfway up the tributary where it joins the conveyance ditch. The electrical conduit was installed above of the gravel layer from the manhole to a location approximately halfway up the East Tributary, where it joins a conveyance ditch.

In the Middle Tributary, the conveyance pipe is installed within the gravel layer from the manhole to the top of the collection system. However, the electrical conduit is above the gravel layer from the manhole to the top of the collection system, where it joins the conveyance ditch. The conveyance ditch from each tributary terminates at the treatment system. Metallic marker tape is installed above the electrical conduit and water conveyance pipe in both tributaries. Figure 2 shows the locations of the conveyance piping.

2.1.4 Soil Cover/Surface Water Ditch Construction

A minimum of 12 inches of clean fill covers the non-woven geotextile. The clean fill is a low-permeability soil, which is intended to provide a barrier to minimize surface water infiltration into the seep collection system. The soil cover is vegetated for erosion control.

2.2 Treatment System

The trailer mounted system is set up for automatic treatment of the water collected in the seep collection system. The system includes two transfer pumps, six bag filter vessels, (two parallel sets of three) and three granular activated carbon vessels. Figure 4 shows a schematic diagram of the treatment process. A design memorandum was submitted to EPA and WVDEP on April 2, 2001.

2.2.1 Power Hook-up

A single phase, 200-amp, 120/240-volt power supply is installed for the treatment system. A 7.2-KV metering structure is installed on Suncrest Boulevard, where the main disconnect is located. Three power poles support the power line from Suncrest Boulevard to the treatment system (See Figure 2).

2.2.2 Bag Filters

The treatment system contains two parellel sets, each with three bag filters plumbed in series, as shown on Figure 4. A pressure gauge is installed before each bag filter to monitor the plugging of the filters. Initially, the bag filters were sized as follows: 25-micron, 10-micron, and 5-micron. Over time, the bag filter sizes were increased to 100-micron, 50-micron, and 25-micron due to excessive clogging of the bag filters. Even with the change, the concentration of total suspended solids (TSS) has never approached the publicly owned treatment works POTW discharge limits.

2.2.3 Granular Activated Carbon Vessels

Each of the three vessels has a capacity of approximately 1,000 pounds of 8 x 30 mesh reactivated carbon. There is a sample port before and after each vessel. With the three carbon vessels in use, the system is typically treating approximately 400,000 gallons of water before requiring changeout.

2.2.4 Sanitary Sewer Permit

The treatment system effluent is discharged to the City of Fairmont sanitary sewer. The discharge is permitted under Industrial User Discharge Permit Number #064. The permit is included as Appendix B. The approximate manhole discharge location is shown on Figure 2.

Effluent monitoring includes analysis for the full list of parameters included in the discharge permit at a frequency of 3 times per year. The discharge limit for these compounds is 50 micrograms per liter (µg/l) per compound or a total of 200 µg/l for combined compounds. As required by the permit, discharge monitoring reports are submitted to the City of Fairmont Sanitary Sewer Board no later than the fifteenth of the month following the sample period.

3.0 Operation and Maintenance Activities

3.1 Inspections

The system is desinged to operate automatically. To verify that the system is operating appropriately, Environmental Strategies performs routine inspections. The inspections are performed approximately every two weeks. The following activities are performed during the visits:

- Check pressure on bag filters and replace, as necessary (i.e., the filters are exchanged as the pressure approaches 20 pounds per square inch)
- Record runtime and alarm time at manhole
- Record instantaneous and total flow
- Sample effluent (3 times per year)

Each year, Reilly has had Remediation Services, Inc. (RSI) perform a preventative system check of the electrical and plumbing within the trailer (RSI owns the trailer, rents it to Reilly, and was the contractor that built the collection systems).

Site inspections are currently conducted only under EPA or EPA contractor oversight.

3.2 Carbon Changeouts

The system has operated since March 31, 2001. As of May 5, 2003, the system has treated 2,506,7000 gallons of water from the East and Middle Tributary collection systems. The carbon has been changed five times, as follows:

June 2001	330,800 gallons treated	(2,000 # carbon)
September 2001	435,600 gallons treated	(3,000 # carbon)
February 2002	477,500 gallons treated	(3,000 # carbon)
July 2002	484,500 gallons treated	(3,000 # carbon)
February 2003	556,500 gallons treated	(3,000 # carbon)

BTEX sampling has been used by Environmental Strategies to monitor carbon life and determine when carbon changes will be needed. Based on data from monthly sampling, 3,000 pounds of carbon can handle 400,000 to 500,000 gallons of influent water.

3.3 Sampling

Sampling is routinely done to monitor effluent from the treatment plant. The permit calls for quarterly sampling of benzene, toluene, ethylbenzene and xylene (BTEX). The limit for the discharge concentrations of any one of those individual parameters is 50 µg/l. In addition, a longer list of traditional wastewater parameters is to be sampled three times per year. Limits have been established in the permit for all of the parameters, but the system has not typically contained any of these non-BTEX parameters in the waste stream.

The results of BTEX sampling are summarized on Table 1. There has never been a "significant non-compliance" issue at the site. There was one exceedance in May 2001. Carbon was changed within one week of the problem.

4.0 Contingency Plan

4.1 System Safeguards

Protection is built into the design of the system. The automated components provide the safeguards to respond to malfunctions associated with unforeseen environmental conditions and unplanned system shutdowns and prevent overflow situations.

The design of the system incorporated features that would shut off the entire system, or parts of the system, if certain conditions occurred. The design evaluated those conditions where continued operation could result in more problems than system shut-down (for example equipment damage or releases from the treatment system trailer). Based on this, there were shut-off triggers designed into the system to both alert operators of problems or stop the system. As described previously, each pump station (manhole) is equipped with an emergency liquid level switch that activates an alarm (i.e., a light turns on indicating that the liquid level in the manhole(s) has risen outside the normal operating range).

When the level in the manhole raises above the high level float lever, that indicates that the pump is unable to remove water at a rate that brings the level down. Once the alarm is triggered, site personnel will contact contractors as listed below, and repairs or other maintenance will be performed. There is also a float/alarm system built into the secondary containment sump at the treatment trailer. If a leak occurs in the treatment system, water is captured in the sump and if the sump fills, the float shuts off the entire system to prevent pumping untreated water to the top of the hill. In turn this will eventually trigger the manhole alarms, and site personnel will notify ESC or response contractors.

The site is currently manned on a daily basis (Monday through Friday) by EPA, its representative, and/or its contractor. The site workers are instructed to notify Environmental Strategies in the event an alarm condition is evident. This approach is commonly applied to remedial systems (e.g., groundwater pump and treat) to provide reasonable notification of a problem and commensurate response. With the current system design, the runtime efficiency of the east tributary was 95.3 percent and the runtime efficiency for the middle tributary was 97.5 percent over the approximate 2-year system operation.

To respond to non-routine maintenance activities, Reilly has contracted McCutcheon Enterprises of Apollo, PA to respond to problems.

4.2 Contact Information

The following personnel and contractors have been identified for site personnel to contact:

Environmental Strategies Corporation
300 Corporate Center Drive
Pittsburgh, PA 15108
Phone: 412-604-1040
Doug Taylor, home phone: 724-934-3183
Cheyne Gross, home phone: 724-367-3063

Reilly Industries
300 North Meridian Street
Indianapolis, IN 46204
Phone: 317-638-7531
Tamra Kress

McCutcheon Enterprises, Inc.
250 Park Road
Apollo, PA 15613
Phone: 724-568-3623 (24 hours)
Jack Miller

Remediation Services, Inc.
2735 S. 10th Street
Independence, KS 67301
1-800-335-1201
Grant Sherwood, cell phone: 918-671-6106
Bud Meeder, cell phone: 918-671-5778
John Gillman, cell phone: 918-671-0401

4.3 Emergency Equipment

The following maintenance and emergency response equipment is stored in the treatment system trailer for use, as necessary:

- Sorbent pads
- PPE
- Sampling equipment
- Tool box
- Electric pump for transferring water within the trailer
- Gasoline powered pump for use at manholes
- Storage drums and basin for temporary water handling
- Spare submersible pumps for the manholes

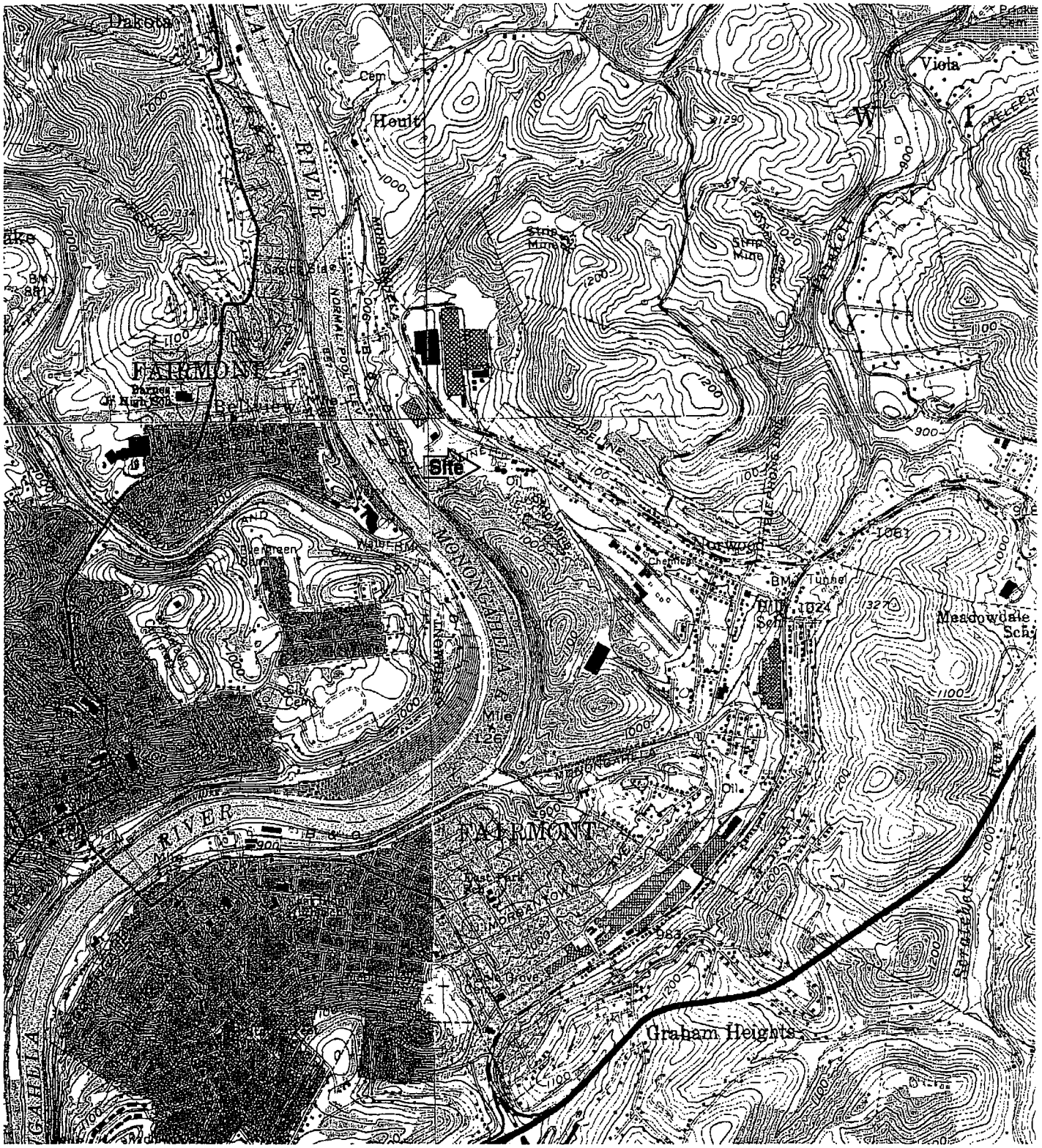
5.0 Health and Safety

The Health and Safety Plan (HASP, Environmental Strategies Corporation, 2000) prepared for the Removal Action work is appropriate for use during the operational phase of the system. A copy of the HASP will be kept on file at the site.

6.0 Reference

Environmental Strategies Corporation, Health and Safety Plan for Removal Action Activities, Big John Salvage Hoult Road Superfund Site, November 17, 2000.

Figures



Reference
USGS Fairmont East, Fairmont West, Grant Town, and Rivesville Topographic Quadrangles
Fairmont, West Virginia
Scale 1:24,000

ENVIRONMENTAL STRATEGIES CORPORATION
4 Penn Center West, Suite 315
Pittsburgh, Pennsylvania 15276
412-787-5100

Figure 1
Site Location
Big John Salvage - Hoult Road Superfund Site
Fairmont, West Virginia

457303-04

HAULT ROAD

CONCRETE PAD

POTW MANHOLE
(APPROXIMATE LOCATION)

DISCHARGE LINE
TO POTW MANHOLE

APPROXIMATE LIMITS
OF EXCAVATION

CONC. PAD

SEEP

N 364,000

E 1,824,500

E 1,825,000

POWER LINE

TREATMENT SYSTEM
(APPROX. LOCATION)

TRIB.

MIDDLE

EAST TRIB.

1020 1030 1040 990 1010 1000 980 970 960 950 930 910 20

N

LEGEND

- SURFACE WATER/SEDIMENT SAMPLING LOCATION
- SEEP SAMPLING LOCATION
- PROPERTY LINE
- FENCE LINE
- RIGHT-OF-WAY LINE
- UNDERGROUND CULVERT
- STREAM/EDGE OF WATER
- SEEP CONVEYANCE PIPING
- DISCHARGE LINE TO POTW MANHOLE
- VEGETATION

REFERENCE:

1. ICF KAISER ENGINEERS DRAWING TITLED, "SURFACE WATER/SEDIMENT SAMPLING LOCATIONS," FIGURE 3-2, DATED 8/20/98, FILE NAME: 20155029 (SHARON STEEL, FSP 70812-22-E). SCALE: 1" = 160'.
2. GEORGE E. PIGOTT & ASSOC., INC. DRAWING TITLED, "BIG JOHN'S SALVAGE SITE", DATED FEBRUARY 2001.

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK & WHITE COPIES MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

SCALE, FEET

0 40 80 160

AR115086

Drawn By: RAZ 051203
Checked:
Approved:
DWG Name: 457303-B02

BIG JOHN SALVAGE
HOULT ROAD SUPERFUND SITE
FAIRMONT, WEST VIRGINIA

PREPARED FOR
REILLY INDUSTRIES, INC. - INDIANAPOLIS, INDIANA

Figure 2

PLAN
SEEP COLLECTION SYSTEM

ENVIRONMENTAL STRATEGIES CORPORATION
300 CORPORATE CENTER DRIVE, SUITE 200
MOON TOWNSHIP, PA 15108 412-604-1040

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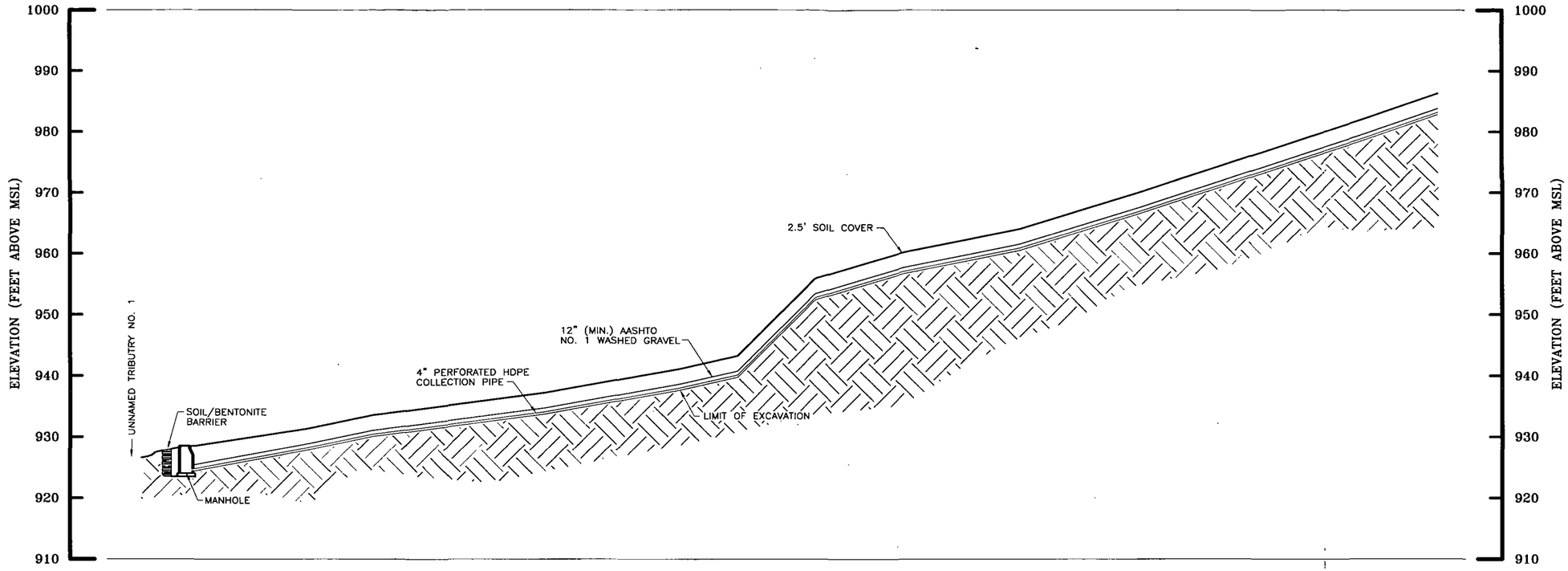
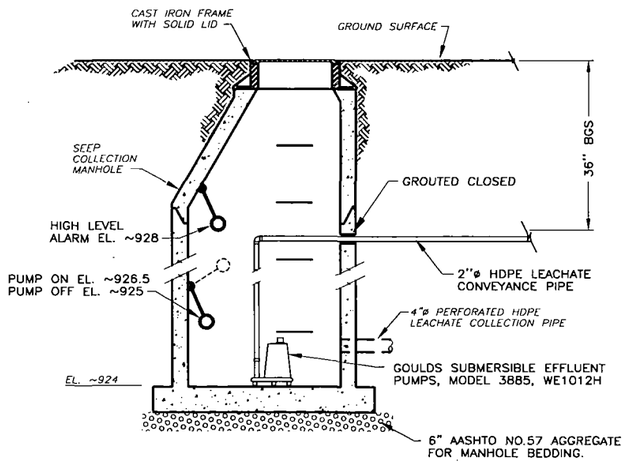


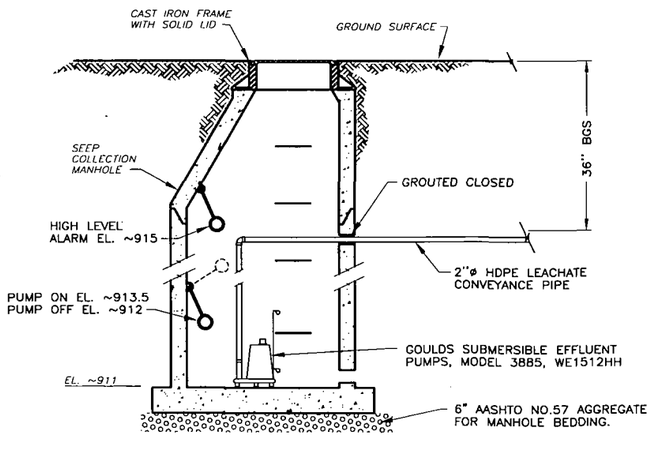
EAST TRIBUTARY EXCAVATION AND PIPING PROFILE

HORIZONTAL SCALE, FEET 0 10 20 40

VERTICAL SCALE, FEET 0 10 20



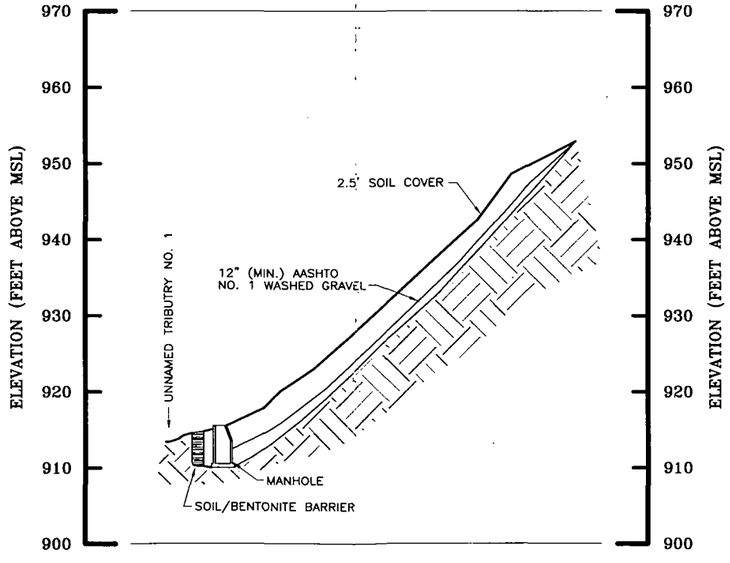
EAST TRIBUTARY MANHOLE DETAIL



MIDDLE TRIBUTARY MANHOLE DETAIL

SEEP COLLECTION MANHOLE DETAILS

NOT TO SCALE



MIDDLE TRIBUTARY EXCAVATION PROFILE

HORIZONTAL SCALE, FEET 0 10 20 40

VERTICAL SCALE, FEET 0 10 20

Drawn By: RTZ 051203
Checked:
Approved:
DWG Name: 457303-B03

BIG JOHN SALVAGE
HOULT ROAD SUPERFUND SITE
FAIRMONT, WEST VIRGINIA
PREPARED FOR
REILLY INDUSTRIES, INC. – INDIANAPOLIS, INDIANA

Figure 3

EXCAVATION & PIPING PROFILES AND MANHOLE DETAILS

ENVIRONMENTAL STRATEGIES CORPORATION
300 CORPORATE CENTER DRIVE, SUITE 200
MOON TOWNSHIP, PA 15108 412-604-1040

LEGEND

PROCESS WATER PIPING
SENSOR WIRE
POWER WIRE
HM — HOUR METER
PI — PRESSURE GAUGE
FI — FLOW METER
CAM–LOCK

LEGEND

HHL — HIGH HIGH LEVEL SWITCH
HL — HIGH LEVEL SWITCH
LL — LOW LEVEL SWITCH
[NC] — NORMALLY CLOSED
[NO] — NORMALLY OPEN
H–O–A — HAND/OFF/AUTO SWITCH
FLOAT SWITCH

H–O–A
EAST TRIB CONTROL PANEL
HM
HM
HHL [NO]
NORMAL FLOAT
HL [NO]
LL
GOULDS MODEL 3885 WE1012H EFFLUENT PUMP
CHECK VALVE
2"ø HDPE

H–O–A
MIDDLE TRIB CONTROL PANEL
HM
HM
HHL [NO]
NORMAL FLOAT
HL [NO]
LL
GOULDS MODEL 3885 WE1512HH EFFLUENT PUMP
CHECK VALVE
2"ø HDPE

MAIN CONTROL PANEL

CIRCUIT BREAKER BOX
SINGLE PHASE, 120–volt, 200 amps

POWER FROM STREET

20,000 gallon FRAC TANK
6" LEVEL
3" LEVEL
NORMAL FLOW
HHL [NC]
HL [NO]
LL
THIS PORTION OF THE SYSTEM WAS BYPASSED AND ELIMINATED IN OCTOBER OF 2001

CHECK VALVE
TRANSFER PUMP
JET PUMP

EXISTING TRAILER

PI
F
25–micron BAG FILTER
10–micron BAG FILTER
5–micron BAG FILTER

SAMPLE TAP
1,000–pound GRANULAR ACTIVE CARBON FILTER VESSEL

[NC]
FLOOR SUMP

TO POTW
CITY MANHOLE ON SITE
2"ø HDPE
FI
CHECK VALVE
SAMPLE TAP

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Drawn By: raz — 051203
Checked:
Approved:
DWG Name: 457303–B04

BIG JOHN SALVAGE
HOULT ROAD SUPERFUND SITE
FAIRMONT, WEST VIRGINIA
PREPARED FOR
REILLY INDUSTRIES, INC. – INDIANAPOLIS, INDIANA

Figure 4
PROCESS AND INSTRUMENTATION FLOW DIAGRAM

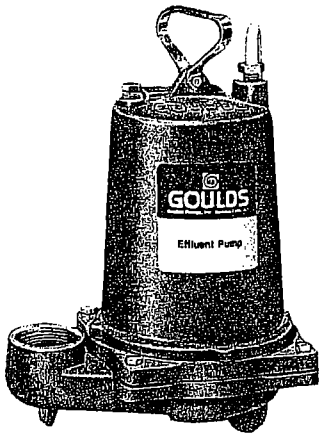
ENVIRONMENTAL STRATEGIES CORPORATION
300 CORPORATE CENTER DRIVE, SUITE 200
MOON TOWNSHIP, PA 15108 412-604-1040

Tables

Table 1
System Sampling Results

Sample Date	Purpose	Sampler	BTEX Results			
			Benzene	Toluene	Ethylbenzene	Xylene (all isomers)
April 3, 2003	Full Suite Permit	City	ND	ND	ND	ND
March 19, 2003	BTEX Performance	ESC	ND	ND	ND	ND
February 10, 2003	Filter Bag Disposal	ESC	NA			
January 21, 2003	BTEX Performance	ESC	21	19	6.5	44
November 12, 2002	Full Suite Permit	ESC	NA			
October 17, 2002	BTEX Performance	ESC	7.2	4.1	1.2	9.3
October 18, 2002	Filter Bag Disposal	ESC	NA			
August 7, 2002	Full Suite Permit plus BTEX	City	ND	ND	ND	ND
June 6, 2002	BTEX Performance	ESC	30	29	16	109
May 9, 2002	BTEX Performance	ESC	22	18	6	41
April 11, 2002	Full Suite Permit plus BTEX	ESC	19	24	10	63
March 28, 2002	BTEX Performance	ESC	18	26	12	88
February 28, 2002	BTEX Performance	ESC	3	1	ND	ND
January 31, 2002	BTEX Performance	ESC	31	24	17	46
December 26, 2001	BTEX Performance	ESC	16	9	5	10
November 27, 2001	BTEX Performance	ESC	7	6	3	14
October 18, 2001	BTEX Performance	ESC	ND	ND	ND	ND
September 27, 2001	BTEX Performance	ESC	ND	ND	ND	ND
August 15, 2001	BTEX Performance	ESC	17	19	7	74
July 26, 2001	Full Suite Permit plus BTEX	City	5	5	2	14
June 19, 2001	Full Suite Permit plus BTEX	ESC	ND	ND	ND	ND
May 13, 2001	BTEX Performance	ESC	37	48	14	90
April 10, 2001	BTEX Performance	ESC	7	12	4	28
March 9, 2001	BTEX Performance	ESC	17	28	10	67
February 5, 2001	BTEX Performance	ESC	12	15	ND	25

Appendix A – Manufacturer Information for Submersible Pumps



Goulds

Submersible Effluent Pump

MODEL

3885

APPLICATIONS

Specifically designed for the following uses:

- Homes
- Farms
- Trailer courts
- Motels
- Schools
- Hospitals
- Industry
- Effluent systems

SPECIFICATIONS

Pump

- Solids handling capabilities: ¾" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 128 GPM.
- Total heads: up to 123 feet TDH.
- Mechanical seal: silicon carbide-rotary seat/silicon carbide-stationary seat, 300 series stainless steel metal parts, BUNA-N elastomers.
- Temperature: 104°F (40°C) continuous 140°F (60°C) intermittent.
- Fasteners: 300 series stainless steel.
- Capable of running dry without damage to components.

Motor

Single phase:

- ⅓ HP, 115 V, 200 V, 230 V, 60 Hz, 1750 RPM; ½ HP, 115 V, 60 Hz, 3500 RPM; ½ HP – 1½ HP, 230 V, 60 Hz, 3500 RPM.
- Built-in overload with automatic reset.
- Class B insulation.

Three phase:

- ½ HP – 1½ HP 200/230/460 V, 60 Hz, 3500 RPM.
- Class B insulation.
- Overload protection must be provided in starter unit.
- Shaft: threaded, 400 series stainless steel.
- Bearings: ball bearings upper and lower.
- Power cord: 20 foot standard length (optional lengths available).

Single phase:

- ⅓ and ½ HP – 16/3 SJTO with 115 V or 230 V three prong plug.
- ¾-1½ HP – 14/3 STO with bare leads.

Three phase:

- ½-1½ HP – 14/4 STO with bare leads. On CSA listed models – 20 foot length SJTW and STW are standard.

FEATURES

■ **Impeller:** Cast iron, semi-open, non-clog with pump-out vanes for mechanical seal protection. Balanced for smooth operation. Silicon bronze impeller available as an option.

■ **Casing:** Cast iron volute type for maximum efficiency. 2" NPT discharge adaptable for slide rail systems.

■ **Mechanical Seal: SILICON CARBIDE VS. SILICON CARBIDE** sealing faces. Stainless steel metal parts, BUNA-N elastomers.

■ **Shaft:** Corrosion-resistant stainless steel. Threaded design. Locknut on three phase models to guard against component damage on accidental reverse rotation.

■ **Motor:** Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.

■ **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage.

■ **Bearings:** Upper and lower heavy duty ball bearing construction.

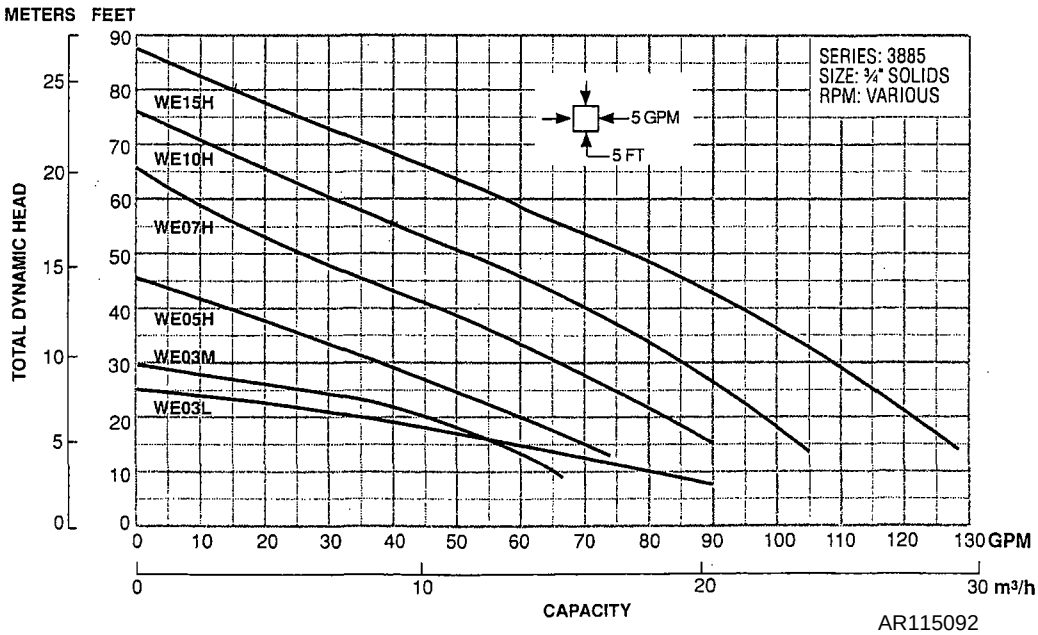
■ **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking.

■ **O-ring:** Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS

Canadian Standards Association

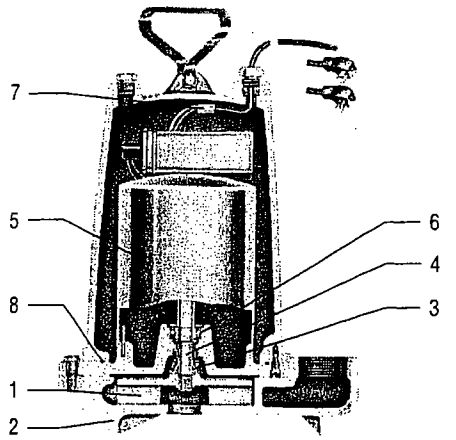
Underwriters Laboratories



AR115092
Effective May, 1995
B3885

PARTS

Item No.	Description
1	Impeller
2	Casing
3	Mechanical seal
4	Shaft
5	Motor
6	Bearings – upper and lower
7	Power cable
8	O-ring



Goulds Submersible Effluent Pump

MODEL

3885

EAST 7 I'S MANHOLE

MIDDLE 7 I'S MANHOLE

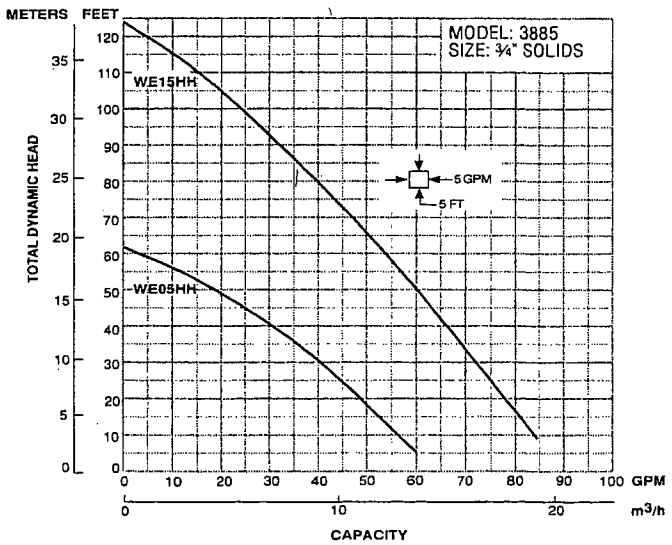
MODELS

Order No.	HP	Volts*	Phase	Max. Amp.	RPM	3ø Heater Size	Wt. (lbs.)
WE0311L	⅓	115	1	9.4	1750	N/A	56
WE0312L		230		4.7			
WE0318L		200		5.4			
WE0311M		115		9.4			
WE0312M		230		4.7			
WE0318M		200		5.4			
WE0511H	½	115	1	14.5	3500	N/A	60
WE0512H		230		7.3			
WE0518H		200		8.4			
WE0538H		200	3	3.9		K32	
WE0532H		230		3.4		K32	
WE0534H		460		1.7		K21	
WE0511HH		115	1	14.5		N/A	
WE0512HH		230		7.3			
WE0518HH		200		8.4			
WE0538HH		200	3	3.8		K32	
WE0532HH		230		3.3		K31	
WE0534HH		460		1.65		K21	
WE0712H	¾	230	1	10.0		N/A	70
WE0718H		200		11.5			
WE0738H		200	3	6.2		K49	
WE0732H		230		5.4		K39	
WE0734H		460		2.7		K28	
WE1012H	1	230	1	12.5		N/A	
WE1018H		200		14.4			
WE1038H		200	3	8.1		K43	
WE1032H		230		7.0		K43	
WE1034H		460		3.5		K32	
WE1512H	1½	230	1	15.7		N/A	80
WE1538H		200	3	10.6		K53	
WE1532H		230		9.2		K50	
WE1534H		460		4.6		K36	
WE1512HH		230	1	15.0		N/A	
WE1538HH		200	3	10.6		K53	
WE1532HH		230		9.2		K50	
WE1534HH		460		4.6		K36	

EAST

MIDDLE

* For 575 V consult factory.

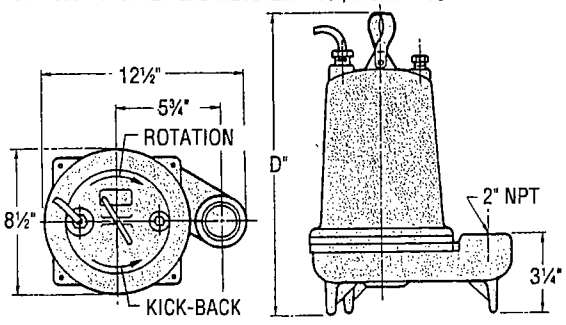


PERFORMANCE RATINGS (gallons per minute)

Order No.	WE0311L WE0312L WE0318L	WE0311M WE0312M WE0318M	WE0511H WE0512H WE0538H WE0532H WE0534H WE0518H	WE0712H WE0738H WE0732H WE0734H WE0718H	WE1012H WE1038H WE1032H WE1034H WE1018H	WE1512H WE1538H WE1532H WE1534H	WE0511HH WE0512HH WE0538HH WE0532HH WE0534HH WE0518HH	WE1512HH WE1538HH WE1532HH WE1534HH
HP	⅓	⅓	½	¾	1	1½	½	1½
RPM	1750	1750	3500	3500	3500	3500	3500	3500
Total Head Feet of Water 5	–	–	–	–	–	–	60	–
10	80	65	–	–	–	–	56	84
15	60	57	69	90	104	128	53	82
20	36	45	60	83	98	122	48	77
25		25	50	76	92	116	45	75
30			38	67	85	109	40	72
35			26	58	78	102	35	70
40			15	47	70	94	30	67
45				36	62	86	25	64
50				25	52	77	18	60
55				17	42	67	12	58
60				8	32	56	3	54
65					21	46		51
70					11	35		47
75						25		43
80						15		40
90								33
100								24
110								15
120								5

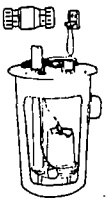
DIMENSIONS

(All dimensions are in inches. Do not use for construction purposes.)
D* ⅓, ½, ¾ and 1 HP = 15"
except for model WE0712H and WE1012H = 18"; 1½HP = 18"



EFFLUENT EJECTOR SYSTEM

Effluent ejector system offers ease of ordering and installation. A single ordering number specifies a complete system designed for most residential and commercial sump and effluent pump applications.



Package Includes:
Submersible Effluent Pump WE0311L, 12L or WE0311M, 12M, WE0511HH, 12HH
Mechanical Level Control Switch A2-5 (115V), A2-6 (230V)
Basin A7-1801S, Basin Cover A8-1822
Check Valve A9-2P
Order No.: SWE0311L, SWE0312L, SWE0311M, SWE0312M, SWE0511HH, SWE0512HH

AR115093

GOULDS PUMPS, INC.
WATER TECHNOLOGIES GROUP
SENECA FALLS, NEW YORK 13148

Appendix B – POTW Discharge Permit

Sanitary Sewer Board

City of Fairmont

Pretreatment Section

PO Box 1428

Fairmont WV 26555-01428

Phone: (304) 366-0540

Fax: (304) 366-6242

June 30, 2002

Mr. Cheyne Gross
Director of Environmental Services
Big John Salvage Superfund Site
Hoult Road
Fairmont WV 26554
Re: Permit Modification

Dear Mr. Gross:

As per our discussion of sampling requirements for Big John Salvage remediation site earlier in the month, we offer the following modification to your City of Fairmont Industrial User's Permit #064 for discharge to the sanitary sewer system.

As of 1 July 2002, Environmental Strategies Corp will only be required to perform BTEX analysis on a quarterly basis as opposed to the once a month requirement stated in your discharge permit. (Reference: pg. 6)

Please allow this letter to serve as your modification.

If you should have any questions regarding this modification please feel free to contact me at my office or email: AlfredRoman@aol.com.

Respectfully Submitted,

FRED Roman

Fred Roman
Pretreatment Coordinator
City of Fairmont WWTP

Cc: David C. Sago, Utility Manager for the City of Fairmont

DBT

SANITARY SEWER BOARD
for
the City of Fairmont WWTP

WASHINGTON STREET EXTENSION
P. O. BOX 1428
FAIRMONT, WV
26555-01428

TELEPHONE (304) 366-0540
FAX (304) 366-6242

INDUSTRIAL USER DISCHARGE PERMIT

PERMIT NUMBER 064A

In accordance with the provision of Industrial Waste Ordinance No. 602 of the City of Fairmont.

Environmental Strategies Corp.
4 Penn Center West
Suite 315
Pittsburgh Pa, 15276
(For the Big Johns Salvage Site near Hoult Road)

is hereby authorized to discharge industrial wastewater from the above identified facility and through the outfall identified herein into the Fairmont sanitary sewer system in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment regulations, standards or requirements under Local, State, and Federal laws, including any such regulations, +standards, requirements, or laws that may become effective during the term of this permit.

Noncompliance with any term or condition of this permit shall constitute a violation of the City of Fairmont Industrial Waste Ordinance No. 602.

This permit shall become effective on the 20th day of January 2001 , and shall expire at midnight on the 19st day of January 2006 .

A facility representative, as described in Section D. 5a :b; or c, as appropriate, shall submit to the Fairmont Sanitary Sewer Board, within 15 days of receipt of this permit, a signed letter acknowledging receipt of this permit, and agreement to comply with the terms stated herein.

If the permittee wishes to continue to discharge after the expiration date of this permit, an application must be filed for a permit renewal in accordance with the requirement of Section 4: 2.5 of Ordinance No. 602, a minimum of 180 days prior to the expiration date of this permit.

Fairmont Sanitary Sewer Board

BY: _____
WWTP Superintendent

Issued this 20th day of January 2001 .

PART I - EFFLUENT LIMITATIONS:

A. During the period of 19th to January 2006, the permittee is authorized to discharge process wastewater from the outfall (s) listed below.

Description of outfall (s):

Outfall	Description
A	Pre-treated wastewater from on-sight storage tanks.

B. During the period of 19th to January 2006, the discharge from outfalls A shall not exceed the following effluent limitations.

Parameter	Minimum	Maximum	Monthly average mg/1
Arsenic (As)		.10	
Cadmium (Cd)		.25	
Chromium-total (Cr)		2.0	
Copper (Cu)		1.0	
Cyanide (CN)		.50	
Lead (Pb)		1.0	
Mercury (Hg)		.10	
Nickel (Ni)		1.0	
Phenols		.70	
Silver (Ag)		.10	
Zinc (Zn)		1.5	
Oil and Grease (Petroleum and/or mineral)		80.0	
Floatable oils, fats, grease		500	
Temperature-Maximum (degrees C)		40	
pH-Maximum (pH units)		8.5	
pH-Minimum (pH units)		5.0	
Biochemical Oxygen Demand		(Monitor only parameter)	
Suspended Solids		(Monitor only parameter)	

PART I. Continued

C. The permittee shall not discharge wastewater containing any of the following substances from any outfall:

1) Any liquids, solids or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause explosion or be injurious in any other way to the POTW, to the operation of the POTW, or to the personnel of the POTW. At no time shall the closed cup flashpoint of any discharge be less than 140 degrees Fahrenheit. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides and sulfides.

2) Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the wastewater facilities such as, but not limited to: grease, garbage with particles greater than one-half (½") inch in any dimension, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastic, gas, tar, asphalt residues, residues from refining or processing of fuel or lubricating oil, mud or glass grinding or polished wastes.

3) Any wastewater having a pH less than 5.0, or greater than 8.5, or wastewater having any corrosive property capable of causing damage or hazard to structures, equipment, and/or personnel of the POTW.

4) Any wastewater containing toxic pollutants in sufficient quantity, either singularly or by interaction with other pollutants to injure or interfere with any wastewater treatment process constitute a hazard to humans or animals, create a toxic effect in the receiving waters of the POTW, or to exceed the limitation set forth in a Categorical Pretreatment Standard. A toxic pollutant shall include, but not be limited to, any pollutant identified pursuant to Section 307 (a) of the Clean Water Act of 1977 and amendments thereto.

5) Any noxious or malodorous liquids, gases, or solids, which either singularly or by interaction with other wastes are sufficient to create a public nuisance or hazard to life or are sufficient to prevent entry to the sewers for their maintenance and repair.

PART I. Continued

C. 6) Any substance which may cause the POTW's effluent or any other product of the POTW such as residues, sludges, or scums, to be unsuitable for reclamation process where the POTW is pursing a reuse and reclamation program. In no case shall a substance discharged to the POTW cause the POTW to be in noncompliance with sludge use or disposal criteria, guidelines or regulations developed under Section 405 of the Act; any criteria, guidelines or regulations affection sludge use or disposal subject to the Substance Control Act, or State criteria applicable to the sludge management method being used.

7) Any substance which will cause the POTW to violate its NPDES and/or State Disposal System Permit or the receiving water quality standards.

8) Any wastewater with objectionable color not removed in the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions.

9) Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in on case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40 degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits.

10) Any pollutants, including oxygen demanding pollutants (BOD, etc.), released at a flow and/or pollutant concentration which a User knows or has reason to know will cause interference to the POTW. In on case shall a slug load have a flow rate or contain concentration or quantities or pollutants that exceed for any time period longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration, quantities, or flow during normal operation.

11) Any wastewater containing any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the Supervisor in compliance with applicable State or Federal regulations.

12) Any wastewater which causes a hazard to human life or creates a public nuisance.

PART I. Continued

D. All dischargers shall comply with all other applicable laws, regulations, standards, and requirements contained in Ordinance No. 602 and any applicable State and Federal pretreatment laws, regulations, standards, and requirements including any such laws, regulations, standards, or requirements that may become effective during the term of this permit.

PART II - Monitoring Requirements:

A. During the period that this permit is in effect, the permittee shall monitor outfalls A for the following parameters, at the indicated frequency and at the permittee's expense. The permittee shall give written notification of the monitoring schedule at least three (3) days prior to the actual sampling.

PARAMETER (units)		Location	Frequency	Sample Type
Arsenic (As)	(mg/l)			
Cadmium (Cd)	(mg/l)			
Chromium-total (Cr)	(mg/l)			
Copper (Cu)	(mg/l)			
Cyanide (CN)	(mg/l)			
Lead (Pb)	(mg/l)			
Mercury (Hg)	(mg/l)			
Nickel (Ni)	(mg/l)			
Phenols	(mg/l)			
Silver (Ag)	(mg/l)			
Zinc (Zn)	(mg/l)			
Oil & Grease	(mg/l)			
Floatable oils, fats, grease				
BTEX				
Temperature-Maximum (Degrees C)				
pH-Maximum (Standard pH units)				
pH-Minimum (pH units)				
Biochemical Oxygen Demand				
Suspended Solids				

B. All handling and preservation of collected samples and laboratory analyses of samples shall be performed in accordance with 40 CFR Part 136 and amendments thereto unless specified otherwise in the monitoring conditions of this permit.

PART III - REPORTING REQUIREMENTS:

A. Monitoring Reports:

Monitoring results obtained shall be summarized and reported 3 times per year. The reports are due on the N/A day of the month. The first report is due on N/A. Subsequent reports shall be due every month. The report shall indicate the nature and concentration of all pollutants in the effluent for which sampling and analyses were performed during the calendar month preceding the submission of each report. **BTEX** shall be tested monthly with reports due no later than the 15th of each month.

B. If the permittee monitors any pollutant more frequently than required by this permit, using test procedures prescribed in 40 CFR Part 136 or amendments thereto, or otherwise approved by EPA or as specified in this permit, the results of such monitoring shall be included in any calculations of actual daily maximum or monthly average pollutant discharge and results shall be reported in the semi-annual report submitted to the Fairmont Sanitary Sewer Board.

C. Automatic Resampling:

If the results of the permittee's wastewater analysis indicate that a violation of this permit has occurred, the permittee must:

1) Inform the Fairmont Sanitary Sewer Board of the violation within 24 hours; and

2) Repeat the sampling and pollutant analysis, giving the Fairmont Sanitary Sewer Board three days prior written notification of the sampling schedule, and submit in writing, the results of this second analysis within 30 days of the second sampling.

*Please refer to Attachment I

FAIRMONT WASTEWATER TREATMENT PLANT

ATTACHMENT I

A. General

1. Each load of trucked waste is subject to inspection by the WWTP Pretreatment Coordinator or the Superintendent.

2. Each load is subject to denial.

3. Driver shall notify WWTP personnel upon arrival at treatment plant and before initiating discharge of any waste to the treatment plant.

4. The WWTP Pretreatment Coordinator or Superintendent reserves the right to dictate delivery schedules.

B. Compliance and enforcement Monitoring

1. Each load of trucked waste is subject to sampling.

2. All sampling to be performed by WWTP Pretreatment Coordinator or his assigns.

3. All expenses incurred under this section shall be paid for by the permittee. Analytical expenses shall be invoiced per our cost from a private certified laboratory.

4. Frequency of analysis to be at the discretion of the WWTP Pretreatment Coordinator.

C. Treatment Cost

1. Cost of treatment shall be twenty-two dollars ($22.00) per thousand gallons to be invoiced monthly.

2. Treatment cost is subject to change without notice.

ATTACHMENT A

(1) Fairmont Wastewater Treatment plant personnel will perform all sampling and analysis required by law of the permittee. Permittee's waste stream will be analyzed 3 times per year minimum.

(2) Expenses incurred from sampling and analysis shall be the responsibility of the permittee.

(3) Each load of wastewater trucked to the Fairmont Wastewater Treatment Plant shall be subject to sampling and analysis

(4) Trucked wastewater may be discharged only at the designated manhole and only during hours approved by the Fairmont WWTP.

ATTACHMENT 1

MONITORING REQUIREMENTS (cont.)

1. Permittee shall monitor outfall No. 1 monthly for Benzene, Toluene, Ethylbenzene and Xylene (B.T.E.X.) utilizing E.P.A. approved methods for sampling and analysis.

2. Sampling shall be grab type as described in Section A. Part 10, Subsection C of this permit.

PART III Continued

D. Accidental Discharge Report:

1) The permittee shall notify the Fairmont Sanitary Sewer Board immediately upon the occurrence of an accidental discharge of substances prohibited by Industrial Waste Ordinance No. 602 or any slug loads or spills that may enter the public sewer. At all times, the Fairmont Sanitary Sewer Board shall be notified by telephone at either 366-0540, 8 a.m. to 4:30 p.m. Monday - Friday, or at 366-1461 at nights, or week-ends or holidays. The notification of accidental discharge shall include location of discharge, date and time thereof, type of waste, including concentration and volume, and corrective action taken. The permittee's notification of accidental releases in accordance with this section does not relieve it of other reporting requirements that arise under Local, State or Federal Laws.

Within five (5) days following an accidental discharge, the permittee shall submit to the Fairmont Sanitary Sewer Board a detailed written report. The report shall specify:

(a) Description and cause of the upset, slug load, or accidental discharge, the cause thereof, and the impact on the permittee's compliance status. The description should also include location of discharge, type, concentration and volume of waste.

(b) Duration of noncompliance, including exact dates and times of noncompliance and, if the noncompliance is continuing, the time by which compliance is reasonably expected to occur.

(c) All steps taken or to be taken to reduce, eliminate, and/or prevent recurrence of such an upset, slug load, accidental discharge, or other conditions of noncompliance.

PART III Continued

E. 1. The industrial User shall notify the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities in writing of any discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the Industrial User discharges more than 100 kilograms of such waste per calendar month to the POTW, the notification shall also contain the following information to the extent such information is known and readily available to the Industrial User: An identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the waste stream discharged during that calendar month, and an estimation of the mass of constituents in the waste stream expected to be discharged during the following twelve months. All notifications must take place within 180 days of the effective date of this rule. Industrial Users who commence discharging after the effective date of this fuel shall provide the notification no later than 180 days after the discharge of the listed or characteristic hazardous waste. Any notification under this paragraph need be submitted only once for each hazardous waste discharged. However, notifications of changed discharges must be submitted under 40 CFR 403.12 (j). The notification requirement in this section does not apply to pollutants already reported under the self-monitoring requirements of 40 CFR 403.12 (b), (d), and (e).

2. Discharges are exempt from the requirements of paragraph (p) (1) of this section during a calendar month in which they discharge no more than fifteen kilograms of hazardous wastes, unless the wastes are acute hazardous wastes as specified in 40 CRF 261.30 (d) and 261.33 (e). Discharge of more than fifteen kilograms of non-acute hazardous wastes in a calendar month or of any quantity of acute hazardous wastes as specified in 40 CFR 261.30 (d) and 261.33 (e), requires a one-time notification.

Subsequent months during which the Industrial User discharges more than such quantities of any hazardous waste do not require additional notifications.

PART III Continued

E. 3. In the case of any new regulations under section 3001 of RCRA identifying additional characteristics of hazardous waste or listing any additional substance as a hazardous waste, the Industrial User must notify the POTW, the EPA Regional Waste Management Waste Division Director and State hazardous waste authorities of the discharge of such substance within 90 days of the effective date of such regulations.

4. In the case of any notification made under paragraph (p) of this section, the Industrial User shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

F. All reports required by this permit shall be submitted to the Fairmont Sanitary Sewer Board at the following address:

Fairmont Sanitary Sewer Board
Wastewater Treatment Plant
Attn: David C. Sago, Superintendent
Washington Street Extension
P. O. Box 1428
Fairmont, WV 26555-01428

PART IV - SPECIAL CONDITIONS:

Section 1 - ADDITIONAL/SPECIAL MONITORING REQUIREMENTS:

Section 2 - REOPENER CLAUSE:

A. This permit may be reopened and modified to incorporate any new or revised requirements contained in a National categorical pretreatment standard that applies to this particular industry.

B. This permit may be reopened and modified to incorporate any new or revised requirements developed by the Fairmont Sanitary Sewer Board as are necessary to ensure POTW compliance with applicable sludge management requirements promulgated by EPA (40 CFR 503).

C. This permit may be reopened to encompass additional or special monitoring requirements.

Section 3 - COMPLIANCE SCHEDULE:

A. The permittee shall achieve compliance with the provisions of this permit in accordance with the following schedule.

Effective date of permit.

B. Compliance Schedule Reporting

This permittee is expected to comply with the terms of this permit within the time frame provided herein.

PART V - STANDARD CONDITIONS:

SECTION A. GENERAL CONDITIONS AND DEFINITIONS:

1. Severability

The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

2. Duty to Comply

The permittee must comply with all conditions of this permit. Failure to comply with the requirements of this permit may be grounds for administrative action, or enforcement proceedings including civil or criminal penalties, injunctive relief, and summary abatements.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact to the POTW or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Permit Modification

This permit may be modified for good causes including, but not limited to, the following:

a. To incorporate any new or revised Federal, State or Local pretreatment standards or requirements.

PART V Continued

SECTION A: 4 Continued

b. Material or substantial alterations or additions to the discharger's operation processes, or discharge volume or character which were not considered in drafting the effective permit.

c. A change in any condition in either the industrial user or the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge.

d. Information indicating the permitted discharge poses a threat to the Control Authority's collection and treatment systems, POTW personnel or the receiving waters.

e. Violation of any of the terms of the permit.

f. Misrepresentation or failure to disclose fully all relevant facts in the permit application or in any required reporting.

g. Revision of or a grant of variance from such categorical standards pursuant to 40 CFR Part 403.13; or

h. To correct typographical or other errors in the permit.

I. To reflect transfer of the facility ownership and/or operation to a new owner/operator.

j. Upon request of the permittee, provided such request does not create a violation of any applicable requirements, standards, laws, or rules and regulations.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay and permit condition.

PART V

SECTION A continued

5. Permit Termination

This permit may be terminated for the following reasons:

a. Falsifying self-monitoring reports

b. Tampering with monitoring equipment

c. Refusing to allow timely access to the facility premises and records

d. Failure to meet effluent limitations

e. Failure to pay fines

f. Failure to pay sewer charges

g. Failure to meet compliance schedules

6. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any violation of Federal, State, or Local laws or regulations.

7. Permit Transferability

Transferring of permits shall be in accordance with Section 4.26 of Ordinance No. 602

8. Duty to Reapply

If the permittee wishes to continue to discharge after the expiration date of this permit, an application must be filed for a permit renewal in accordance with the requirement of Section 4.2.5 of Ordinance No. 602, a minimum of 180 days prior to the expiration date of this permit.

9. Dilution

The permittee shall not increase the use of potable or process water or, in any way, attempt to dilute an effluent as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

PART V Continued

SECTION A Continued

10. Definitions

a) Daily Maximum - The maximum allowable discharge of pollutant during a calendar day. Where daily maximum limitations are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where daily maximum limitations are expressed terms of concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.

b) Composite Sample - A sample that is collected over time, formed either by continuous sampling or by mixing discrete samples. The sample may be composite either as a time composite sample: composed of discrete sample aliquots collected in one container at constant time intervals providing representative samples irrespective of stream flow; or as a flow proportional composite sample: collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increases while maintaining a constant time interval between the aliquots. When 24 hours composite sampling is required by this permit, and discharge is limited to specific hours and/or shifts, the composite is to be taken during those production hours.

c) Grab Sample - An individual sample collected in less than 15 minutes, without regard to flow or time.

d) Instantaneous Maximum Concentration - The maximum concentration allowed in any single grab sample.

e) Cooling Water -

(1) Uncontaminated: Water used for cooling purposes only which has no direct contact with any raw material, intermediate, or final product and which does not contain a level of contaminants detectably higher than that of the intake water.

(2) Contaminated: Water used for cooling purposes only which may become contaminated either through the use of water treatment chemicals used for corrosion inhibitors or biocides, or by direct contact with process materials and/or wastewater.

PART V Continued

SECTION A Continued

f) Monthly Average - The arithmetic mean of the values for effluent samples collected during a calendar month or specified 30 day period (as opposed to a rolling 30 day window).

g) Weekly Average - The arithmetic mean or values for effluent samples collected over a period of seven consecutive days.

h) Bi-Weekly - Once every other week.

I) Bi-Monthly - Once every other month.

j) Upset - Means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitation because of factors beyond the reasonable control of the permittee excluding such factors as operational error, improperly designed or inadequate treatment facilities, or improper operation and maintenance of lack thereof.

k) Bypass - Means the intentional diversion of wastes from any portion of a treatment facility.

11. General Prohibitive Standards

The permittee shall comply with all the general prohibitive discharge standards in Section 2.1 of the Fairmont Sanitary Sewer Board Industrial Waste Ordinance No. 602 (see Part 1, Section C. of this permit.

12. Compliance with Applicable Pretreatment Standards

Compliance with this permit does not relieve the permittee from its obligations regarding compliance with any and all applicable Local, State, and Federal pretreatment standards and requirements including any such standards or requirements that may become effective during the term of this permit.

PART V Continued

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROL

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes but is not limited to: effective performance, adequate funding, adequate operator staffing and quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this permit.

2. Duty to Halt or Reduce Activity

Upon reduction of efficiency of operation, or loss or failure of all or part of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control its production or discharges (or both) until operation of the treatment facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities

a) Bypass is prohibited unless it is unavoidable to prevent loss of life, personal injury, or severe property damage or no feasible alternatives exist.

b) The permittee may allow bypass to occur which does not cause effluent limitations to be exceeded, but only if it is also for essential maintenance to insure efficient operation.

c) Notification of bypass:

1) Anticipated bypass: If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, at least ten (10) days before the date of the bypass, to the Fairmont Sewer Board.

PART V Continued

SECTION B Continued

2) Unanticipated bypass: The permittee shall immediately notify the Fairmont Sanitary Sewer Board and submit a written notice to the POTW. within five (5) days. This report shall specify:

(i) A description of the bypass, and its cause, including its duration;

(ii) Whether the bypass has been corrected; and

(iii) The steps being taken or to be taken to reduce, eliminate and prevent a reoccurrence of the bypass.

4. Recource Conservation and Recovery Act Requirements

Solids, sludges, filter backwash, or other pollutants that are generated by the permittee shall be disposed of in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recoverer Act (RCRA).

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by an other waste stream, body of water or substance. All equipment used for sampling and analysis must be routinely calibrated, inspected and maintained to ensure their accuracy. Monitoring points shall not be changed without notification to and the approval of the Fairmont Sanitary Sewer Board.

2. Flow Measurements

If flow measurement is required by this permit, the appropriate flow measurement devices and methods consistent with approved scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements are consistent with the accepted capability of that type of device.

PART V Continued

SECTION C Continued

3. Analytical Methods to Demonstrate Continued Compliance

All sampling and analysis by this permit shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto, otherwise approved by EPA, or as specified in this permit.

4. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures identified in Section C.3, the results of this monitoring shall be included in the permittee's self monitoring reports.

5. Inspection and Entry

The permittee shall allow the Fairmont Sanitary Sewer Board, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c) Inspect at reasonable times and facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit;

d) Sample or monitor, for the purposes of assuring permit compliance, any substances or parameters at any location; and

e) Inspect any production, manufacturing, fabricating, or storage area where pollutants, regulated under this permit, could originate, be stored, or be discharged to the sewer system.

PART V Continued

SECTION C Continued

6. Retention of Records

a) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application.

b) All records that pertain to matters that are the subject of special orders or any other enforcement of litigation activities brought by the Fairmont Sanitary Sewer Board shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

7. Record Contents

Records of sampling and analyses shall include:

a) The date, exact place, time and methods of sampling or measurements, and sample preservation techniques or procedures;

b) Who performed the sampling or measurements;

c) The date(s) analyses were performed;

d) Who performed the analyses;

e) The analytical techniques or methods used; and

f) The results of such analyses.

8. Falsifying Information

Knowingly making any false statement on any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate, is a crime and may result in the imposition of criminal sanctions and/or civil penalties.

PART V Continued

SECTION D. ADDITIONAL REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall give notice to the Fairmont Sanitary Sewer Board 90 days prior to any facility expansion, production increase, or process modifications which results in new or substantially increased discharges or a change in the nature of discharge. Such changes must be evaluated and approved by the Fairmont Sanitary Sewer Board prior to the alteration of discharge by the permittee.

2. Anticipated Noncompliance

The permittee shall give advance notice to the Fairmont Sanitary Sewer Board of any planned changes in the permitted facility or activity which may result in noncompliance with the requirements of this permit.

3. Automatic Resampling

If the results of the permittee's wastewater analysis indicates a permit violation has occurred, the permittee must resample as specified in Part III Section C of this permit.

4. Duty of Provide Information

The permittee shall furnish to the Fairmont Sanitary Sewer Board, within 5 days any information which the Sanitary Sewer Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also, upon request, furnish the Fairmont Sanitary Sewer Board, within 5 days, copies of any records required to be kept by this permit.

PART V Continued

SECTION D Continued

5. Signatory Requirements

All applications, reports, or information submitted to the Fairmont Sanitary Sewer Board must contain the following certification statement and be signed as required in Sections a, b, c, or d, below:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am a ware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

a) By a responsible corporate officer, if the Industrial User submitting the reports is a corporation. For the purpose of this paragraph, a responsible corporate officer means:

   (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation or;

   (ii) the manager of one or more manufacturing production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b) By a general partner or proprietor if the Industrial User submitting the reports is a partnership or sole proprietorship respectively.

c) The principal executive officer or director having responsibility for the overall operation of the discharging facility if the Industrial User submitting the reports is a Federal State, or Local government entity or their agents.

PART V Continued

SECTION D Continued

d) By a duly authorized representative of the individual designated in paragraph (a), (b), or (c) of this section if:

(i) the authorization is made in writing by the individual described in paragraph (a), (b), or (c);

(ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial Discharge originates, such as the position of plant manager, operator of a well, or a well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and

(iii) the written authorization is submitted to the City.

e) If an authorization under paragraph (d) of this section is no longer accurate because of a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for the environmental matters for the company, a new authorization satisfying the requirements of paragraph (d) of this section must be submitted to the City prior to or together with any reports to be signed by an authorized representative.

6. Operating Upsets

Any permittee that experiences an upset in operations that places the permittee in a temporary state of noncompliance with the provisions of either this permit or with Ordinance No. 602 shall inform the Fairmont Sanitary Sewer Board within 24 hours of becoming aware of the upset at 366-0540, Monday - Friday or 366-1461 after 4 p.m. Monday - Friday, and or weekends, and holidays.

A written follow-up report of the upset shall be filed by the permittee with the Fairmont Sanitary Sewer Board within five days. The report shall specify:

a) Description of the upset, the cause(s) thereof and the upsets impact on the permittee's compliance status;

b) Duration of noncompliance, including exact dates and times of noncompliance, and if not corrected, the anticipated time the noncompliance is expected to continue; and

c) All steps taken or to be taken to reduce, eliminate and prevent recurrence of such an upset.

The report must also demonstrate that the treatment facility was being operated in a prudent and workman like matter.

A documented and verified operating upset shall be an affirmative defense to any enforcement action brought against the permittee for violations attributable to the upset event.

7. Annual Publication

A list of all industrial users which were found to be in significant noncompliance during the twelve (12) previous months shall be annually published by the Fairmont Sanitary Sewer Board in the largest daily newspaper within its service area. Accordingly, the permittee is apprised that noncompliance with this permit may lead to an enforcement action and may result in publication of its name in an appropriate newspaper in accordance with this section.

8. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil and/or criminal penalties for noncompliance under Section 5.5 of Ordinance No. 602 of State Federal laws or regulations.

9. Penalties for Violations of Permit Conditions

Any person who violates the conditions of this permit is subject to the penalties as outlined in Section 6.1 of Fairmont City Ordinance No. 602. The permittee may also be subject to sanctions under State and/or Federal law.

10. Recovery of Cost Incurred

In addition to civil and criminal liability, the permittee violating the provisions of this permit or Fairmont City Ordinance No. 602, or causing damage to or otherwise inhibiting the Fairmont Sanitary Sewer Board wastewater disposal system shall be liable to the Fairmont Sanitary Sewer Board for any expense, loss, or damage caused by such violation or discharge. The Fairmont Sanitary Sewer Board shall bill the permittee for the costs incurred by the Fairmont Sanitary Sewer Board for any cleaning, repair, or replacement work caused by the violation of discharge. Refusal to pay the assessed costs shall constitute a separate violation of Ordinance 602.