



Public Service Commission ORIGINAL

-M-E-M-O-R-A-N-D-U-M-

DATE: January 26, 1999
TO: Division of Records and Reporting
FROM: William T. Rendell, Division of Water & Wastewater
RE: Docket No. 980242-SU- Application for a Limited Proceeding for a Two-Step Wastewater Rate Increase by Lindrick Service Corporation

The attached response to staff's informal data request was inadvertently sent to the Division of Water and Wastewater. Please include them in the official docket file for Docket No. 980242-SU.

Thanks you.

- ACK
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FPSC-RECORDS/REPORTING



BORDA ENGINEERS & ENERGY CONSULTANTS

Merchantville Train Station • 10 E. Chestnut Street
Merchantville, New Jersey 08109 • (609) 662-5307 • (609) 662-5342 (FAX)

January 20, 1999

Florida Public Service Commission
Capital Circle Office Center
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Attention: Lee R. Munroe, Engineer

RE: Lindrick Service Corp.
Limited Rate Proceeding
1/14/99 Inquiry

RECEIVED

JAN 25 1999

Florida Public Service Commission
Division of Water and Wastewater

JAN 25 9 18 AM '99
ADMINISTRATION
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Dear Mr. Munroe:

In response to your request for additional information regarding the limited rate proceeding, we offer the following:

1. While a part of Borda Engineers past services to LSC has been associated with the operation, maintenance, and monitoring/regulatory interface of the wastewater treatment plant, cessation of influent treatment at the plant site will reduce but not eliminate the need for engineering services associated with the current wastewater treatment plant site.

The wastewater treatment plant, rather than being abandoned, will be converted into a flow equalizing master pumping station. Raw sewage from Lindrick's customers will continue to pass through the plant structure with a portion of it being detained by Lindrick in order to regulate flows to New Port Richey's plant (reducing peak flows to City and optimizing City treatment capacity as well as leveling peaks in influent chloride concentrations caused by daily fluctuations in system flow and tides). In order to control odors, aeration and chemical treatment of the influent at the plant will continue to be required. In addition, odor control treatment will be introduced at several other points in the collection system (refer to Exhibit "C" of original rate proceeding submission). Therefore, while some BEEC services associated strictly with wastewater treatment will be eliminated, the new pumping, emergency power and odor control systems will require the same types of oversight and monitoring to optimize system performance and minimize chemical usage while effectively controlling plant odors. (Similarly, while costs to operate the plant will be eliminated, new power, testing and chemical treatment costs to operate master pumping station will be incurred.)

Florida Office • P.O. Box 1176 • New Port Richey, FL 34656-1176 • (813) 849-2266

Joseph R. Borda, A.I.A., P.E. • Keith A. Haberern, P.E., R.A. • Linda O. Miedwig, P.E.

As the change from a wastewater treatment plant to flow equalizing pumping station occurs, some current job codes and tasks for engineering services may be retired or modified to reflect the shift in scope of Borda Engineers services. In addition, it may become necessary to create new task descriptions to accurately reflect services provided.

In January 1998, Borda Engineers reviewed their historical billing data and developed an estimate of anticipated future services following completion of rehabilitation work. This estimate, included as Exhibit D in the Limited Rate Proceeding Special Report issued January 28, 1998, reflected a reduction of over \$10,000 in engineering fees as a result of the cessation of wastewater treatment by Lindrick Service. Please note that BEEC services currently associated with water treatment and distribution as well as existing wastewater collection and pumping systems will remain basically unchanged. However, BEEC is currently providing (and will continue to provide) additional services associated with the ongoing Phase I & II Rehabilitation project. In addition, once influent chlorides have been lowered sufficiently to permit diversion of influent to the City of New Port Richey, engineering services associated with maintenance of the collection system will actually increase.

Attached to this letter as Exhibit "A" is a breakdown of projected hourly services which generated the fee estimate provided in January 1998. Please note modification to category E07 to address changing scope of work associated with conversion of the plant to a flow equalizing pumping station and concurrent reductions in related categories including review of lab tests, correspondence, recordkeeping. While the total number of hours spent has been reduced, subsequent personnel expense increases will affect future billings (increase 10-15%).

As previously indicated, more extensive engineering services associated with ongoing collection system monitoring and maintenance efforts will be necessary once Phase I & II rehabilitation is completed in order to preserve system integrity and minimal chloride levels required by the Bulk Wastewater Treatment Agreement with the City of New Port Richey.

As LSC has begun rehabilitation activities required to reduce influent chlorides below 600 mg/l, an unanticipated phenomena, which will have an ongoing impact on operating and maintenance expenses, has occurred. The Phase I rehabilitation includes cleaning of the existing lines, then video inspection of same, with repair activities as indicated by inspection. These repairs range from grouting of joints to slip lining pipe sections, to complete replacement of pipe.

As repairs are completed, influent chlorides for various sections of the system are tested, with dramatic reductions of chloride levels. However, these same sections of the system, when retested several months later, are again showing elevated chlorides, due to new leaks in the piping. Because of the age of the system, once an existing leak is sealed the increased ambient hydrostatic pressure creates a new leak in a previously sound section of piping. (Repair of weak link precipitates failure of next weakest point).

This genesis of new leaks as a result of rehabilitation activities will both increase the scope of the initial (Phase I) work effort as LSC strives to meet the 600 mg/l influent chloride level required by the agreement with the City of New Port Richey, as well as increasing the ongoing annual testing/analysis/maintenance and repairs required to sustain and improve upon the reduced chloride levels, again in accordance with the terms of the contract with the City.

Therefore, in retrospect, the original fee estimation of \$54,000.00 provided in January 1998 appears low. Given personnel cost increases and additional unanticipated engineering services (resulting from increased collection system maintenance activities), a yearly billing of \$65,000-\$68,000 is likely at this point (plus Phase I & II rehabilitation project billings).

Exhibit "B" attached to this letter includes fee proposals from both Landon Moree & Associates and H₂O Utilities for the services currently provided by Borda Engineers. These proposals were solicited by LSC as part of their efforts on behalf of their customers to control and minimize operating costs wherever possible. Borda Engineers anticipated average billing of \$5,700 per month is less than the proposals received from these competitive firms. (Landon Moree proposal does not recognize the additional engineering time the ongoing collection system monitoring and maintenance will entail, which would further increase their proposal).

2. Testing requirements for 1997 were governed by permit. Excerpts from Permit FL0032603 related to testing are attached as Exhibit "C". Testing costs for 1997 were \$8,415.00 for wastewater system in accordance with LSC's 1997 annual report. (Account 720.5).

3. Following the interconnect extensive wastewater system testing will be required in order to manage the collection system and maintain operations within the influent chloride limits set by LSC's Bulk Wastewater Treatment contract with the City of New Port Richey. Currently we anticipate 40-50 chloride and sulfide tests per month at various locations throughout the collection system. These tests will be required to monitor chlorides systemwide in order to detect elevated levels which would be indicators of collection piping leaks or excessive tidal infiltration. Please refer to additional discussion in Item 1 above.

Costs for wastewater side testing after the interconnect are estimated at \$1,500-\$2,000 per year. Water side testing requirements and costs will remain unchanged.

4. Following conversion of the wastewater treatment plant to a flow equalizing pumping station operational personnel requirements for the wastewater system will be somewhat reduced as the need for licensed operators at the plant will cease.

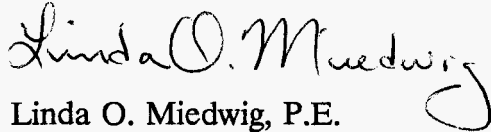
Currently, Lindrick Service employs three full-time licensed operators (only one of these salaries is embedded in the utility rates, LSC is paying for other two operators, required by Permit, from profits). Once the plant is off-line, only the one salary included in the rate base will be eliminated.

Maintenance and monitoring of the collection system will increase (as described above) in order to maintain the low influent chloride levels required by the Bulk Wastewater Agreement between LSC and the City of New Port Richey. LSC will continue to require the services of the Utility Manager (Helen McNeil) as well as the field service foreman and his assistant (a total of 3 employees).

In addition, the flow equalizing pumping station, operation and equipment must be monitored and maintained daily. An independent utility service company will be contracted to provide these services at a cost of approximately \$31,000 per year (approximately equal to eliminated salary and benefits). Therefore, net effect will be to reduce salary and benefit line items and increase "Contract Services - Other" line item (not reflected in either original or revised Special Report by Cronin, Jackson, Nixon and Wilson).

I hope the above and various exhibits provide sufficient information to satisfy your request. Please feel free to contact me if you have any questions or require additional information. Once the detail requested in connection with item 5 of your letter has been assembled, I will forward same under separate cover.

Very truly yours,

Handwritten signature of Linda O. Miedwig in cursive script.

Linda O. Miedwig, P.E.

LOM:dlk

cc: Joseph Borda
Gary Deremer
Bob Nixon

APPENDIX "A"

ENGINEERING FEE ESTIMATE

Engineering Fee Estimate
for LSC once Plant is Off-line

Assumptions

1. Use current billing codes except E07 for WWTP will be modified for services associated with master lift station (flow equalizing pumping station).

<u>Job Code</u>	<u>Principal</u>	<u>Engr.</u>	<u>Tech. Supp.</u>	<u>Adm. Support</u>
01	24	120	0	0
02	30	36	0	0
03	24	120	0	42
04	0	24	0	0
05	0	12	60	0
06	30	48	0	6
07	36	90	0	0
08	24	60	6	0
09	12	30	12	0
10	6	36	6	0
11	0	0	0	0
12	18	24	0	0
13	72	36	0	0
14	<u>60</u>	<u>0</u>	<u>0</u>	<u>0</u>
	336	636	84	48

Estimated billing at current rates

JRB	-	336 x \$125	=	\$42,000.00
Engr. (LOM & KAH)	-	636 x 2.75 x \$28/hr.	=	\$48,972.00
Tech. Supp. (MH & BA)	-	84 x 2.75 x \$15/hr	=	\$ 3,465.00
Adm. Supp. (DLK)	-	48 x 2.75 x \$12/hr	=	<u>\$ 1,584.00</u>
				\$96,021.00

JRB hours not charged to utility therefore total billing = \$54,021

Say \$54,000 per year.

12-2-98

DOES NOT INCLUDE IMPACT OF ADD'L
COLLECTION SYSTEM MAINTENANCE & MONITORING
NEEDED TO MAINTAIN REDUCED CHLORIDES.

EXHIBIT "B"

PROPOSALS FOR ENGINEERING SERVICES



Landon, Moree & Associates, Inc.
Civil & Environmental Engineers
Planners- Surveyors

31622 U.S. Highway 19 North
Palm Harbor, Florida 34684
Ph (813) 789-5010
Fax (813) 787-4394
lma@compuserve.com

Memo

October 17, 1998

To: Joe Borda, President / Lindrick Service Corporation

Via: Fax (727)848-4866

From: John S. Landon, P.E.

LMA#: 000-15

RE: Proposal for Yearly Engineering Services

As per our conversation on October 15th, we will provide hourly professional engineering services per the attached fee schedule as necessary to support the day to day operations for the above named utility located in Pasco County.

It is estimated that our fees will average approximately \$6,250 per month to cover the attached scope of services.

This estimate does not include any unusual design requirements which may be required by the utility.

We would be please to provide you with individual quotes for this type of work on a case by case basis.

If you have any questions, please call me.



BORDA ENGINEERS & ENERGY CONSULTANTS

Merchantville Train Station • 10 E. Chestnut Street
Merchantville, New Jersey 08109 • (609) 662-5307 • (609) 662-5342 (FAX)

January 5, 1997

LINDRICK SERVICE CORPORATION ENGINEERING TASK CODES

Key hourly billings to appropriate task codes.

<u>CODE</u>	<u>TASK</u>
E01	Daily Check: Reports/Lab Test Results/Operations.
E02	Daily Check: Repair Methodology Interface.
E03	Engr. Communications: Field/Subs/Home Office/DEP.
E04	Analyze Bids/Wk. Orders/Costs/Engr. Completeness.
E05	Maintain Tech. Reports/Engr. Records.
E06	Prepare/Review Reports & Agreements (City, County, DEP, EPA, Customers).
E07	WWTP: Analyze System Operation, Flows, Equipment, Air System, Biology/Chemistry (Influent/Effluent) vs. compliance with Permit Parameters.
E08	Wellfields: Review Monthly Reports for permit compliance, Corrosion Control Analysis, Testing, Repairs.
E09	Pumping Stations: Design/Sizing Pumps/Efficiency and Longevity.
E10	Water Distribution System: Hydraulic Analysis, Valving, Extent of Repairs.
E11	WWTP: Evaluation of Treatment Options, Prelim. Design of All System Components.
E12	Value Engineering: Overall Water and Wastewater System.
E13	Meeting Attendance.
E14	Field Inspection.

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Joseph R. Borda, A.I.A., P.E. • Keith A. Haberman, P.E., R.A. • Linda O. Miedwig, P.E.

LONDON, MOREE & ASSOCIATES, INC.

FEE SCHEDULE

EFFECTIVE January 1, 1997

Principal Engineer	\$120.00
Senior Engineer	\$100.00
Engineer V	\$80.00
Engineer IV	\$80.00
Engineer III	\$75.00
Engineer II	\$70.00
Engineer I	\$60.00
CAD Tech II	\$80.00
CAD Tech I	\$50.00
Draftsman	\$30.00
Survey Crew	\$75.00

Field Construction



November 23, 1998

Mr. Joseph Borda, AIA, PE
Borda Engineers and Energy Consultants
Merchantville Train Station
10 East Chestnut Street
Merchantville, New Jersey 8109

RE: Proposal for Annual Engineering Support
Lindrick Service Corporation
P.N. 9800

Dear Mr. Borda:

I am writing pursuant to our recent conversation to provide a proposal to provide engineering support services in accordance with the attached scope of services list entitled "Lindrick Service Corporation Engineering Task Codes". As we are intimately familiar with this system, we have a realistic feel for the level of effort that will be required to accomplish all of the items that are listed. In addition, given the nature of the system and the fact that controlling chlorides will be an ongoing problem for this system, a significant additional and ongoing effort will need to be included to monitor and control the infiltration, and consequently chlorides, in this system.

We estimate that an annualized monthly fee of approximately \$7,200.00 will be required to provide the engineering services listed on the Task Codes sheet, and also includes monitoring, planning and supervision of the ongoing chloride control program that will be required.

As we are the general contractor currently performing the rehabilitation work on the system, we can make a realistic estimate of the cost of the actual ongoing repairs that will be required on this aging system. Given the size, age and condition of this system, this is quite probably the most serious maintenance issue faced by this utility over the next decade. After the completion of the Phase I and Phase II system rehabilitation and chloride reduction program, we estimate that an annual expenditure of approximately \$70,000 to \$100,000 will be necessary to continuously test, repair, and maintain the collection system to prevent chloride levels from rising above 600 mg/l level. This work will involve line cleaning, televising, grouting, manhole inspection and point repairs involving excavation and line replacement.

Please feel free to call on me at your convenience should you have any questions.

Very truly yours,

G. Jeffrey Hines, P.E.
Vice President

GH:ej
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EXHIBIT "C"
TESTING REQUIREMENTS

Lindrick Service Corporation
 PO Box 1176
 New Port Richey, FL 34656-1176

PERMIT NUMBER: FL0032603
 EXPIRATION DATE: 5/28/02

I. RECLAIMED WATER AND EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Surface Water Discharges (Interim Limits).

1. During the period beginning on the issuance date and lasting through 9/14/97 as noted in the Administrative Order attached to this permit, the permittee is authorized to discharge effluent from Outfall D001 to the Gulf of Mexico at Cross Bayou. Such discharge shall be limited and monitored by the permittee as specified below:

Parameter	Units	Max/Min	Effluent Limitations				Monitoring Requirements			Notes
			Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	
Flow	mgd	Maximum	0.750				Continuous	Recording flow meters and totalizers	EFD-01-25450	See Cond. I.A.4
Carbonaceous Biochemical Oxygen Demand (5 day)	mg/L	Maximum	10.0	10.0		20.0	Weekly	16-hour flow proportioned composite	EFA-01-13790	
Total Suspended Solids	mg/L	Maximum	15.0	15.0		30.0	Weekly	16-hour flow proportioned composite	EFA-01-13790	
Fecal Coliform Bacteria	See Permit Condition I.A.5.						Weekly	Grab	EFA-01-13790	
pH	std. units	Range				6.5 to 8.5	Continuous	Meter	EFA-01-13790	See Cond. 3
Total Residual Chlorine (For Disinfection)	mg/L	Minimum				0.5	Continuous	Meter	EFA-01-13790	See Cond. I.A.6
Total Residual Chlorine (For Dechlorination)	mg/L	Maximum				6.01	Continuous	Meter	EFD-01-25445	
NH ₃ -N	mg/L	Maximum	2.0	2.0	2.0	2.0	Weekly	16-hour flow proportioned composite	EFA-01-13790	
TN	mg/L	Maximum		Report	Report	Report	Weekly	16-hour flow proportioned composite	EFA-01-13790	
Cu	ug/L	Maximum		Report	Report	Report	Monthly	Grab	EFA-01-13790	
Dissolved Oxygen	mg/L	Minimum				7.5	Continuous	Meter	EFD-01-25445	
Whole Effluent Toxicity	See Permit Condition I.A.9,10									
Ambient Monitoring Program	See Permit Condition I.A.11									

JAN. 20. 1999

12:14PM BORDA ENGINEERS

NO. 1003

P. 13/20

Lindrick Service Corporation
 PO Box 1176
 New Port Richey, FL 34656-1176

PERMIT NUMBER: FL0032603
 EXPIRATION DATE: 5/28/02

I. RECLAIMED WATER AND EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

B. Surface Water Discharges

- During the period beginning 9/15/97 date and lasting through the expiration date of this permit, as noted in the Administrative Order attached to this permit, the permittee is authorized to discharge effluent from Outfall D001 to the Gulf of Mexico at Cross Bayou. Such discharge shall be limited and monitored by the permittee as specified below:

Parameter	Units	Max/Min	Effluent Limitations				Monitoring Requirements			Notes
			Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	
Flow	mgd	Maximum	0.750				Continuous	Recording flow meters and totalizers	EFD-01-25450	See Cond.LA.4
Carbonaceous Biochemical Oxygen Demand (5 day)	mg/L	Maximum	10.0	10.0		20.0	Weekly	16-hour flow proportioned composite	EFA-01-13790	
Total Suspended Solids	mg/L	Maximum	15.0	15.0		30.0	Weekly	16-hour flow proportioned composite	EFA-01-13790	
Fecal Coliform Bacteria	See Permit Condition LA.5.						Weekly	Grab	EFA-01-13790	
pH	std. units	Range				6.5 to 8.5	Continuous	Meter	EFA-01-13790	See Cond. 3
Total Residual Chlorine (For Disinfection)	mg/L	Minimum				0.5	Continuous	Meter	EFA-01-13790	See Cond.LA.6
Total Residual Chlorine (For Dechlorination)	mg/L	Maximum				0.01	Continuous	Meter	EFD-01-25445	
NH ₃ -N	mg/L	Maximum	2.0	2.0	2.0	2.0	Weekly	16-hour flow proportioned composite	EFA-01-13790	
TN	mg/L	Maximum		5.0		5.0	Weekly	16-hour flow proportioned composite	EFA-01-13790	
Ca	mg/L	Maximum				2.5	Every two months	Grab	EFA-01-13790	
Dissolved Oxygen	mg/L	Minimum				7.5	Continuous	Meter	EFD-01-25445	
Whole Effluent Toxicity	See Permit Condition LA.9,10									
Ambient Monitoring Program	See Permit Condition LA.11									

JUN. 20. 1999

12:14PM

BORDA ENGINEERS

NO. 102

P. 14/20

Lindrick Service Corporation
 PO Box 1176
 New Port Richey, FL 34656-1176

PERMIT NUMBER: FL0032603
 EXPIRATION DATE: 5/28/02

2. Effluent samples shall be taken at the monitoring site locations listed in Permit Condition I. A. 1. and and I. B. 1, as described below:

Monitoring Location Site Number	Description of Monitoring Location
EFA-01-13790	After disinfection, and prior to dechlorination
EFB-01-25450	Prior to disinfection.
EFD-01-25445	Post-dechlorination, and prior to discharge to surface waters.

3. Hourly measurement of pH and total chlorine residual measured for disinfection effectiveness (after chlorine contact) during the period of required operator attendance may be substituted for continuous measurement. [Chapter 62-601, Figure 2, Footnotes 1 and 2, 5-31-95]
4. Recording flow meters and totalizers shall be utilized to measure flow and calibrated at least annually. [62-601.200(17) and .500(6), 5-31-93]
5. The arithmetic mean of the monthly fecal coliform values collected during an annual period shall not exceed 200 per 100 mL of effluent sample. The geometric mean of the fecal coliform values for a minimum of 10 samples of effluent each collected on a separate day during a period of 30 consecutive days (monthly), shall not exceed 200 per 100 mL of sample. No more than 10 percent of the samples collected (the 90th percentile value) during a period of 30 consecutive days shall exceed 400 fecal coliform values per 100 mL of sample. Any one sample shall not exceed 800 fecal coliform values per 100 mL of sample. Note: To report the 90th percentile value, list the fecal coliform values obtained during the month in ascending order. Report the value of the sample that corresponds to the 90th percentile (multiply the number of samples by 0.9). For example, for 30 samples, report the corresponding fecal coliform number for the 27th value of ascending order. [62-600.440(4)(c), 6-8-93]
6. A minimum of 0.5 mg/L total residual chlorine must be maintained for a minimum contact time of 15 minutes based on peak hourly flow. [62-600.440(4)(b), 6-8-93]
7. Florida water quality criteria and standards shall not be violated as a result of the discharge. [62-620.320(D), 11-29-94][62-302.510(C), 2-27-95]
8. Parameters which must be monitored as a result of surface water discharge shall be analyzed using a sufficiently sensitive method in accordance with 40 CFR Part 136. [62-620.610(18), 11-29-94]

The following is provided for informational purposes:

Location Site Number	Description of Location
WAFR#28368	D001 - Surface Water Disposal to Cross Bayou (tributary)

3.

Lindrick Service Corporation
 PO Box 1176
 New Port Richey, FL 34656-1176

PERMIT NUMBER: FL0032603
 EXPIRATION DATE: 5/28/02

9. The effluent shall not be chronically toxic to, or produce adverse physiological or behavioral responses in aquatic animals. An effluent No Observable Effect Concentration (NOEC) of less than 100.0% will constitute a violation of Florida Administrative Code Section 62-302.530(62) [1/15/96], Rule 62-4.244(3)(a) [7/4/95], and the terms of this permit. The testing for these requirements must conform with Part I.A.11 of this permit. Chronic whole effluent toxicity testing will be performed every 2 months, and for the duration of the permit, unless notified otherwise, in writing, by the Department.

Whole effluent toxicity (WET) testing:

Bimonthly Chronic (definitive)

Parameter	Units	Max/Min	Effluent Limitations				Monitoring Requirements			Notes
			Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	
M. bahia TBF3E		Minimum, NOEC>100%	*	*	*	*	Every 2 months	24-hr spc	EFD-01-25443	I.B.10
M. beryllina TFB6B		Minimum, NOEC>100%	*	*	*	*	Every 2 months	24-hr spc	EFD-01-25443	I.B.10

CHRONIC SCREEN TEST

Whole Effluent Toxicity Testing Program

10. As required by Part I of this permit, and as scheduled, the permittee shall initiate the series of tests described below to evaluate whole effluent toxicity of the discharge from outfall D001. All test species, procedures and quality assurance criteria used shall be in accordance with Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Marine and Estuarine Organisms, EPA/600/4-91/003, or the most current edition. A standard reference toxicant quality assurance chronic toxicity test shall be conducted concurrently with each species used in the toxicity tests and the results submitted to the Southwest District of FDEP.

Department of Environmental Protection
 Water Facilities, Technical Services Section
 3804 Coconut Palm Drive
 Tampa, FL 33619-8318

Lindrick Service Corporation
PO Box 1176
New Port Richey, FL 34656-1176

PERMIT NUMBER: FL0032603
EXPIRATION DATE: 5/28/02

Additionally, monthly QA/QC reference toxicant tests results must be submitted. Any deviation from the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use.

(1) a. The permittee shall conduct a mysid shrimp, *Mysidopsis bahia*, survival, growth and fecundity Test and an inland silverside *Menidia beryllina*, larval survival and growth test. These tests shall be conducted using a control (0% effluent) and the following dilution concentrations at a minimum: 100.0%, 50.0%, 25%, 12.5% and 6.25%. Unacceptable chronic toxicity will be demonstrated if either test results in a No Observed Effect Concentration (NOEC) less than 100% effluent. An unacceptable chronic toxicity test will constitute a violation of this permit and Chapters 62-302.530(62) [1/15/96], F.A.C.

b. For each set of tests conducted, a 24-hour composite sample of final effluent shall be collected and used per the sampling schedule discussed in EPA/600/4-91/003, Section 8. Two (2) additional composite samples shall be collected according to the protocol on Day 2 and Day 4 of the test and used as renewal solutions on Day 3 and Day 5 of the test, respectively.

c. If control mortality exceeds 20% for either species in any test, the test(s) for that species (including the control) shall be repeated. A test will be considered valid only if control mortality does not exceed 20% for either species. If, in any separate test, 100% mortality occurs prior to the end of the test, and control mortality is less than 20% at that time, that test (including the control) shall be terminated with the conclusion that the sample demonstrates unacceptable toxicity. Additionally, each test must meet the acceptability criteria for the appropriate test species as defined in EPA/600/4-91/003, Section 13.11 and Section 11.11.

(2) a. The toxicity tests specified above shall be conducted once every two (2) months until six (6) valid bimonthly tests have been conducted. These tests are referred to as "routine" tests. Upon the completion of six (6) valid tests which demonstrate that no unacceptable toxicity (as defined in 4.a.) has been identified, the permittee may petition the Department for a reduction in monitoring frequency.

b. Results from "routine" tests shall be reported according to EPA/600/4-91/003, Section 10, Report Preparation (or most current edition), and shall be submitted to the address given in condition I.A.10 of this permit. Additionally, all results shall be recorded and submitted on the Discharge Monitoring Report (DMR) in the following manner:

1. For the chronic test results, if the NOEC of a test species is less than 100% effluent, "< 100%" should be entered on the DMR for that species. If the NOEC of a test species is greater than or equal to 100% effluent, "≥ 100%" should be entered.

3. a. If unacceptable chronic toxicity (a NOEC of less than 100% effluent) is found in a "routine" test, the permittee shall conduct three (3) additional tests on the species indicating unacceptable toxicity.

b. The additional tests shall be conducted using a control (0% effluent) and a minimum of five (5) dilutions: 100.0%, 50.0%, 25.0%, 12.5% and 6.25% effluent.

Lindrick Services Corporation
PO Box 1176
New Port Richey, FL 34656-1176

PERMIT NUMBER: FL0032603
EXPIRATION DATE: 5/28/02

c. For each additional test, the sample collection requirements and the test acceptability criteria specified above must be met for the test to be considered valid. The first test shall begin within two (2) weeks of the end of the "routine" tests, and shall be conducted weekly thereafter until three (3) additional, valid tests are completed. The additional tests will be used to determine if the toxicity found in the "routine" test is still present.

d. Results from additional tests, required due to unacceptable chronic toxicity in the "routine" tests, shall be submitted in a single report prepared according to EPA/600/4-91/003, Section 10, or the most current edition, and submitted within forty-five (45) days of completion of the third additional valid test. If the additional test(s) demonstrate unacceptable chronic toxicity, the permittee will meet with the Department within thirty (30) days of the report submittal to identify corrective actions necessary to remedy the unacceptable chronic toxicity.

Ambient Monitoring Program

12. The permittee shall conduct a surface water monitoring program to evaluate the impacts of the discharge on the water quality of the receiving body of water. Within thirty (30) days of the date of issuance of this permit, the permittee shall submit a draft plan of study for the ambient monitoring program to the Department. The study shall include a QA/QC plan in accordance with Chapter 62-160, F.A.C. The following sampling locations shall be established and sampled bimonthly during the summer months (July, and September) and bimonthly for the remaining months (November, January, March, and May) for the following parameters. Upon approval by FDEP, the program shall be implemented by the permittee.

a. Sampling Locations

1. 300 feet upstream of the Outfall (EFD-01-25545)
2. 300 feet downstream of the Outfall
3. At the outfall - effluent prior to mixing with surface waters
4. a far-field site in Cross Bayou

b. Sampling Parameters and Depths

Near the Surface: pH, DO, Temperature, Salinity, Conductivity
Mid-depth : pH, DO, Temperature, Salinity, Conductivity, Chlorophyll-a, TSS, CBOD₅, Fecal Coliform
H₂S, and nutrients TN, TP, NO_x/NO₃, NH₃, PO₄
Near the Bottom: pH, DO, Temperature, Salinity, Conductivity

c. Secchi Depth: Secchi depth shall be measured at each sampling location.

d. Benthic Macroinvertebrate Sampling: Effective 9/15/97, and every six (6) months thereafter, benthic samples shall be collected and sorted followed by identification to the lowest possible taxon. Metrics calculated should include, but are not limited to: Shannon-Weiner diversity, evenness, taxa richness, and % contribution of the dominant taxon. A species enumeration list should also be included in the report.

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e. Ambient Conditions: Air temperature, rainfall, cloud cover and direction of flow (incoming or outgoing tides) shall be noted at each sampling location.

f. Chain of Custody: Time/date of sampling and samplers' names shall be noted at each sampling location.

13. A report containing the sampled data shall be submitted to FDEP's Southwest District on a bimonthly basis outlining the results of the ambient monitoring program. The report shall also include all chain of custody forms, laboratory results as reported by the laboratory, and the physicochemical raw data sheets.

C. Other Limitations and Monitoring and Reporting Requirements

1. During the period beginning on the issuance date and lasting through the expiration date of this permit, the treatment facility shall be limited and monitored by the permittee as specified below:

Parameter	Units	Max/Min	Limitations				Monitoring Requirements				Notes
			Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number		
Flow	mgd	Maximum	0.750				Continuous	Recording flow meters and totalizers	EFB-01-25450	See Cond.I.C.4	
Carbonaceous Biochemical Oxygen Demand (5 day)	mg/L	Report					Weekly	16-hour flow proportioned composite	ENR-01-25442	See Cond.I.C.3	
Total Suspended Solids	mg/L	Report					Weekly	16-hour flow proportioned composite	ENR-01-25442	See Cond.I.C.3	

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2. Samples shall be taken at the monitoring site locations listed in Permit Condition I B. 1 and as described below:

Monitoring Location Site Number	Description of Monitoring Location
EFB-01-25450	After treatment, and prior to disinfection.
INF-01-25442	At headworks, prior to treatment and ahead of return activated sludge line.

3. Influent samples shall be collected so that they do not contain digester supernatant or return activated sludge, or any other plant process recycled waters. [62-601.500(4), 5-31-93]
4. Recording flow meters and totalizers shall be utilized to measure flow and calibrated at least annually. [62-601.200(17) and .500(6), 5-31-93]
5. Parameters which must be monitored as a result of a surface water discharge shall be analyzed using a sufficiently sensitive method in accordance with 40 CFR Part 136. [62-620.610(18), 11-29-94]
6. The permittee shall provide safe access points for obtaining representative influent, reclaimed water, and effluent samples which are required by this permit. [62-601.500(5), 5-31-93]
7. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department on a monthly basis Discharge Monitoring Report(s) (DMR), Form 62-620.910(10), as attached to this permit. The permittee shall make copies of the attached DMR form(s) and shall submit the completed DMR form(s) to the Department by the twenty-eighth (28th) of the month following the month of operation at the address specified below:

Florida Department of Environmental Protection
 Wastewater Facilities Regulation Section, Mail Station 3551
 Twin Towers Office Building
 2600 Blair Stone Road
 Tallahassee, Florida 32399-2400

[62-620.610(18), 11-29-94][62-601.300(1), (2), and (3), 5-31-93]

8. Unless specified otherwise in this permit, all reports and notifications required by this permit, including 24-hour notifications, shall be submitted to or reported to, as appropriate, the Department's Southwest District Office at the address specified below:

Florida Department of Environmental Protection
 Southwest District Office
 3804 Coconut Palm Drive
 Tampa, Florida 33619-8318

Phone Number - (813) 744-6100
 FAX Number - (813) 744-8198

All FAX copies shall be followed by original copies.