
Client: City of Neptune Beach, Florida

Contact: Mr. Mark F. Greenwood-Plants Division Supervisor
Mr. Leon Smith

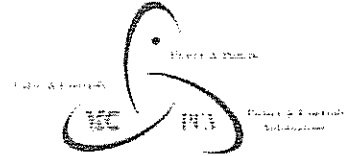
Dated: September 11, 2008

Complied: ANUE ENVIRONMENTAL

Contact: Anue environmental 407-353-0381
Power & Pumps 904-813-1042

Products Presented: ED PRO 2000 Cleaning and Odor Control System

Presented By: Mike Thomas – Anue Environmental Eastern Sales Manager



1. EXECUTIVE SUMMARY

To identify the availability of alternative solutions by Anue Environmental Engineering concerning the pre-treatment of the influent into the Wastewater Treatment Plant, and therefore the results generated at the discharge of said Wastewater Treatment Plant of, specifically the Nitrogen levels. This solicited proposal is for supply and installation of the Anue ED Pro series pump station hydraulic dosing system which includes Accell PRO2 in targeted Master pump station and treatment of influent passing through that station into the WWTP, in order to lower Nitrogen levels to 6ppm and below, to comply with the DEP.

1.1 Evidence

Upon discussions, with Mr. Mark F. Greenwood, Plants Division Supervisor, concerning the high nitrogen levels being discharged by the City of Neptune Beach Wastewater Treatment Plant into the St. Johns river we have proposed a more effective solution by reducing the environmental impact of the treated wastewater. The combined technologies that Anue Environmental has to offer will be able to provide solutions in reducing the environmental impact of the wastewater.

1.2 Recommendation

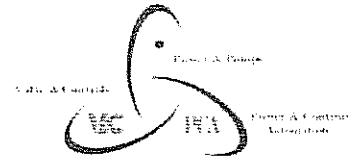
The purpose of this offer is to furnish Mr. Mark Greenwood – Plants Division Supervisor with a product recommendation, scope of works and furnish an installation estimate for the noted pump station and WWTP.

Current issues being experienced within the City of Neptune Beach footprint are as follows. Nitrogen levels of Wastewater Treatment Plant are very high and outside levels set by the DEP for environmental intake

In order to fully appreciate the results of such a proposal based on a 60 day trial with the ability to extend this to a reasonable time frame, in order to achieve our required results. We recommend the installation of our ED PRO 2000 Accell PRO2® (AP2) into the master lift station in front of the WWTP.

The following would be the attention of our test:

- Master Lift Station before WWTP



4. Project Schedule

The ED Pro2000 system will be installed in the Master Lift Station on a schedule T.B.D.

The sampling for this evaluation will be conducted as follows:

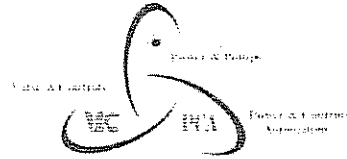
Phase I – Baseline Development. The first phase in this sampling effort will be to Develop a baseline of existing wastewater characteristics. A composite sampling event will occur on a week before installation T.B.D.

After the last sample is collected the ED Pro2000 Systems will be activated for the initial 60 day trial.

II	ED Pro System Activated	Ramp-Up and End Tests	Composite	Nitrogen	Weeks 2, 4 and 6, T.B.D.
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The overall view of what can be expected from this trial:

- Drastically reduces wastewater contaminants
- Drastically reduces H₂S/odor
- Eliminates many problems in collections

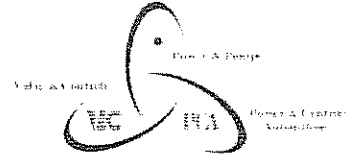
become a major issue. Government regulatory agencies are requiring a reduction in the

down to, or below, acceptable levels of contaminants

The non-toxic protein surfactant (AP2) is introduced through the ED PRO2000[®] biomechanical unit, which continually redistributes and remixes the protein surfactant with the sewage. The process of insertion causes the protein surfactant to immediately affect a change in the wastewater, by thoroughly homogenizing the media at the pump/lift station. The protein surfactant uncouples the biochemical process within the bacteria, thereby significantly reducing the sludge products and accelerating the biological metabolism of waste water contaminants by allocating energy towards more complete digestion of CO₂ rather than creating more biomass. In other words it causes the native bacteria to more completely consume nutrients while increasing their reproduction rate.



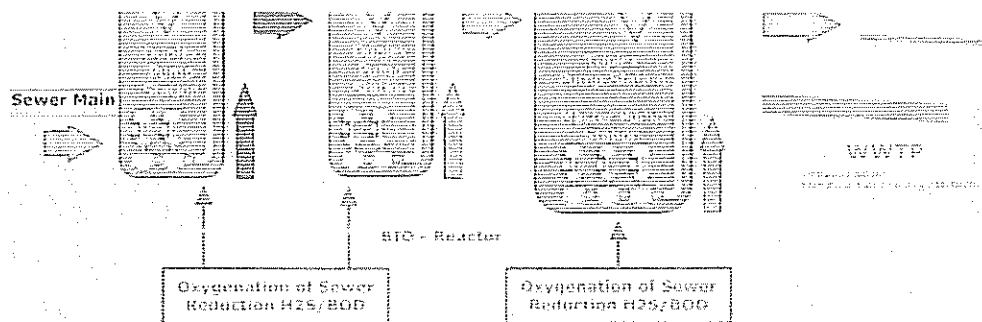
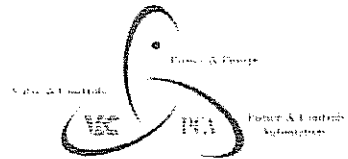
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Aeration Power Costs Reduction of 25% - 50%
Aeration Tank Throughput Increase to 20% - 40%



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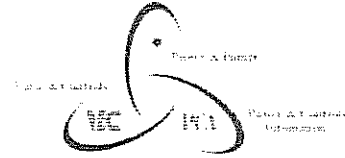


**ED Pro® SERIES HIGH PERFORMANCE CLEANING AND ODOR CONTROL SYSTEM
COMPLETE SOLUTION
TECHNOLOGY FOR MUNICIPAL SYSTEMS**

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5. PROJECT IMPLEMENTATION RECOMMENDATION

It is recommended that we install 1 ED Pro2000 Systems at previously discussed location treating an average of .5 mgd of sewer.

Protein Cost for this 60 day trial treating .5 Mgd is \$15,340

Equipment Cost will be \$9580

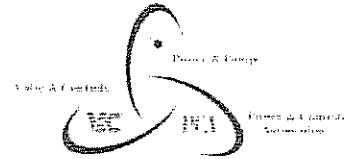
Purchase would be with Power and Pumps Inc. at conclusion of successful test

5.1. Full Product Offer

Item	Quantity	Description
ED Pro 2000 Sys.	1 Ea.	ED Pro 2000.4N (1.5") High Performance Cleaning System includes: <ul style="list-style-type: none"> • Accell- PRO2 – sufficient for treating .5 mgd • Tank • Dosing Pump <u>Mechanical inventory of both ED Pro 1000 and 2000 Sys.</u> <ul style="list-style-type: none"> • 316 S.S Rotary union assembly • 316 S.S All Directional deflector assembly • 316 S.S Swivel feed mast assembly • 316 S.S Feed mast bracket assembly • 304 S.S Manifold assembly (triplex, duplex) • S.S Valves • Flexible hose assembly (cam lock connectors) • 1.5" Clear out port • Boom truck winch lift point • Manual lifting handle • Corrosion coating • Full installation • Full commissioning • Full certification



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Letter of Intent ANUE Environmental Test Criteria

ANUE ENVIRONMENTAL'S PROPOSAL: ANUE sales and engineering staff will examine, inspect and make a proposal for a test, using a combination of our mechanical and bio-technologies to treat a determined amount of sewage measured in MGD. This proposal will include a bill of materials and dosing regimen and the associated cost.

TESTING: Benchmark test will be taken to measure existing issues as requested. Additional testing will be done at the beginning, middle and at the end of the trial. A determination of what constitutes a successful trial will be determined prior to the testing being initiated. This will be the lowering of Nitrogen levels to 5 mg/l or lower

TEST TIME FRAME: After the initial benchmark tests, the overall test will run for 60 days with an option for extension to be decided in by Anue and Power and Pump.

TEST RESULTS: A committee comprised of the customer, distributor, and ANUE personnel will examine the final test results to determine the success obtained by the ANUE System. Success would be determined by comparing the measurable reduction of Nitrogen 5 mg/l or lower using the pre-test/baseline results taken before the activation of the ANUE technology and the results obtained at the end of the test period.

BILLING: The distributor after receiving a successful results from the committee, will bill against a purchase order for the trial amount. Additional pricing, ROI, and leasing information would be presented for a continuing program with 3-4 and 5 year options, along with pricing for additional treatment and mechanical equipment.



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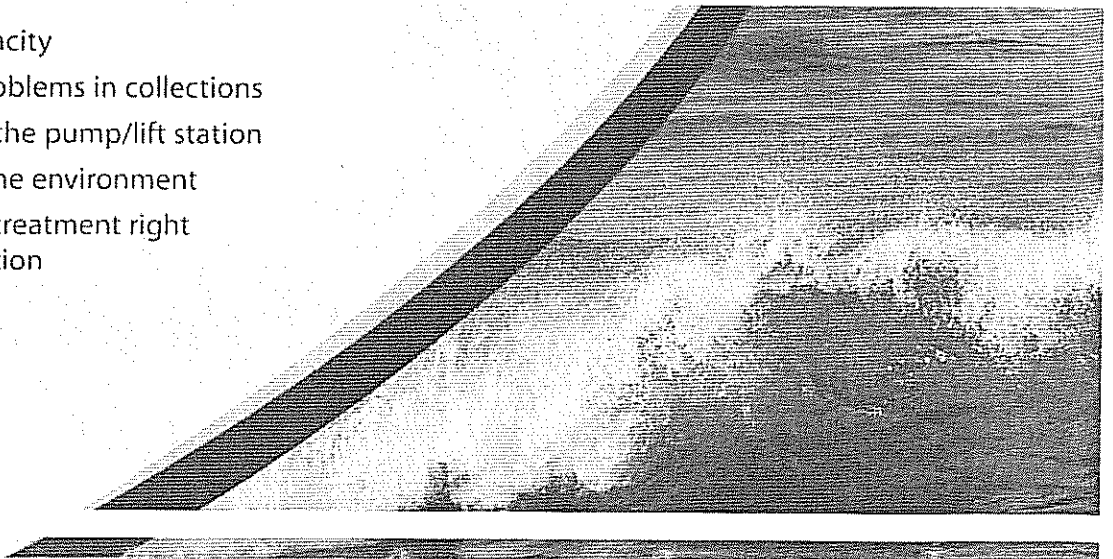
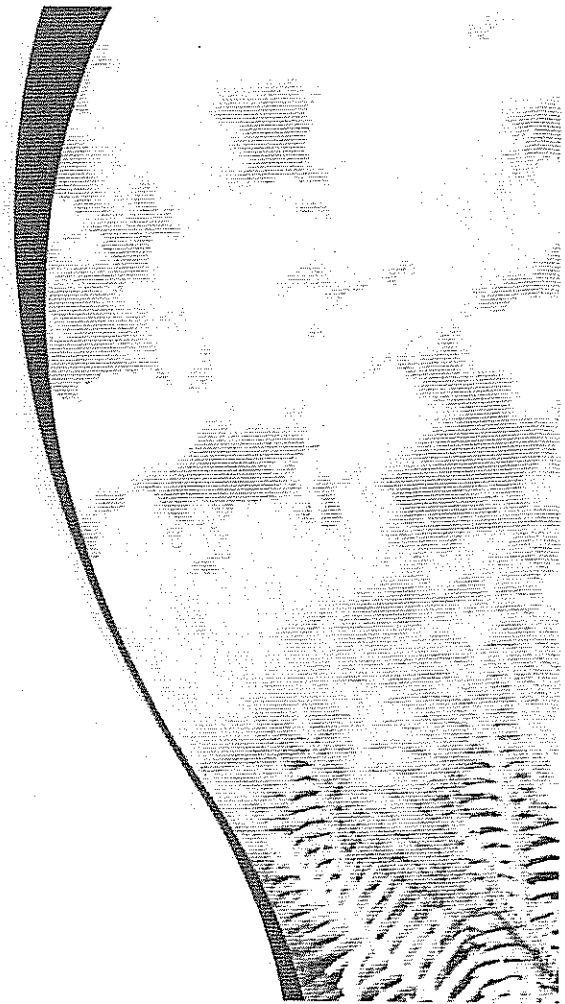
Solutions in Environmental Engineering

ED PRO2000[®]

*A Paradigm Shift in Wastewater
Collection and Treatment*



- Increases plant capacity
- Eliminates many problems in collections
- Prolongs the life of the pump/lift station
- Positively impacts the environment
- Begins wastewater treatment right in the pump/lift station



eregan solution which transforms your lift and pump stations from transport systems to mini bioreactors. By treating the wastewater at the collections stations the municipality reduces processing time by starting the process sooner and reducing the energy required to process the wastewater down to, or below, acceptable levels of contaminants.

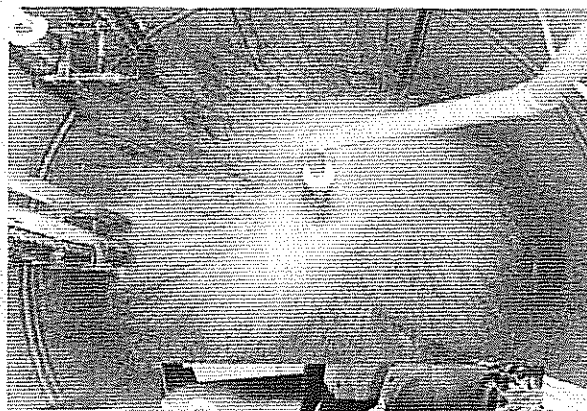
Why Pretreatment is Becoming a Necessity

In many municipalities the requirement to reduce contaminants in treated/processed water is becoming a major issue. Government regulatory agencies are requiring a reduction in the amount of Phosphate, Nitrates, H₂SO₄, Ammonia, fats, oil and grease (FOG) in treated water being reintroduced into streams, rivers, lakes or oceans. Some regulatory agencies are requiring that municipalities' contaminants in treated wastewater remain below a predetermined number, regardless of the amount of increased influent coming into the wastewater treatment plant. These and other changes will inevitably require municipalities to shift the current paradigm of collections and begin the treatment process in the collections stations.

How ED PRO2000® Works

TREATING THE ROOT PROBLEM RATHER
THAN THE SYMPTOM

The non-toxic protein surfactant (AP2) is introduced through the ED PRO2000® biomechanical unit, which continually redistributes and remixes the protein surfactant with the sewage. The process of insertion causes the protein surfactant to immediately affect a change in the wastewater, by thorough-



Benefits of the ED PRO2000® Cleaning and Processing System

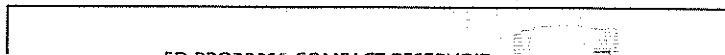
A fundamental change in the bacteria's core metabolism effected by the distribution of Accell Pro2[®] (through the hydraulic delivery unit) at the pump/lift station, considerably reduces the impact of FOG and contamination loads on the plant. These measurable benefits can be seen in the following results:

H2S/H2SO4	Reduces levels to	0.05 - 5ppm
BOD	Reduction of	13% - 60%
TSS	Reduction of	15% - 45%
Ammonia	Reduction of	30% - 80%
Phosphate	Reduction of	45% - 60%
Nitrates	Reduction of	50% - 60%
Sludge Production Avg. Treatment	Reduction of	30% - 50%
Aeration Power Costs	Reduction of	25% - 50%
Aeration Tank Throughput	Increase to	20% - 40%
Sludge volume index (SVI)	Reduction of	30% - 45%
Fats, Oil & Grease (FOG)	Reduction up to	98%

ED PRO2000®

HIGH PERFORMANCE CLEANING/ODOR CONTROL SYSTEM

Using an innovative combination of a high-performance hydraulic delivery unit and



Is It Safe?

Accell Pro2® is completely biodegradable, and is non-toxic to humans and marine life when used as directed. Accell Pro2® contains only ingredients which are recognized by qualified experts as safe in food grade applications according to U.S. Food & Drug Administration (FDA) 21 CFR 178.3400 and/or which are found on the GRAS (Generally Regarded As Safe) list, Part 182 and Part 184.

What's more, this is green technology at its best. The surfactant protein of ED PRO2000® (AP2) has an NSF Standard-60 Certificate for use in the treatment of drinking water!

The Science Behind the Process

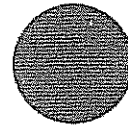
Accell Pro2® utilizes low molecular weight proteins in conjunction with the indigenous bacteria. These proteins have been proven to uncouple biochemical processes within these bacteria, which significantly accelerates the uptake of the bio-available nutrients and converting much of this energy to carbon dioxide as opposed to more biomass. This cell-free, biologically active composition, which when combined with surface active agents, simulates uncoupling of oxidative phosphorylation or energy spilling in biochemical process. When used in isolation, this uncoupling factor appears to have little or no effect on the biological metabolism. Likewise the surface active agent when used in isolation,

These photos show thick biofilm inside a well in Pasco County, Florida before installation, and the dramatic difference with the ED PRO Cleaning System only 2 hours after installation.



BEFORE





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Leaders in Environmental Engineering

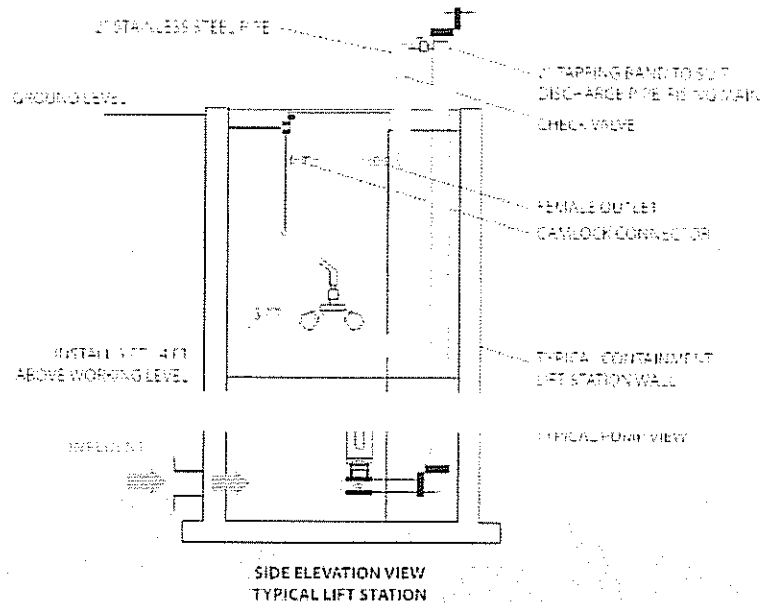
ED PRO1000® — Well washing without Compromise

Now there is no need to choose between operator safety, preserving the environment and well integrity. ED PRO1000® is a fully automated well washing solution that dramatically reduces odor and corrosive biofilm without the use of chemicals, potable water or confined space entry.

Hazardous chemicals are expensive and pollute the environment, other methods of well washing waste mega gallons of precious potable water *and* operator time, and some even endanger the very lives of operators

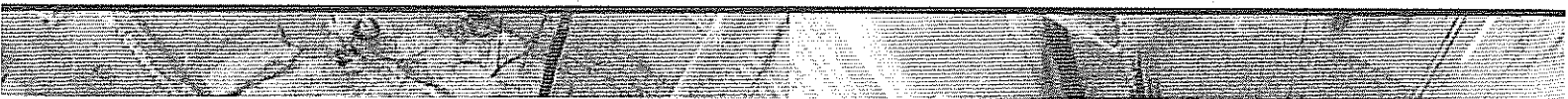
of industrial death in the United States). ANUE Environmental now offers patented technology that addresses the real issues of pump/lift stations — without compromise.

This flow diagram shows how ED PRO1000® uses existing water inside the well to clean well walls and aerate sewage.



ED PRO1000® Makes the Difference

The photos below show thick biofilm inside a well in Pasco County, Florida before installation and the dramatic difference with ED PRO1000® only 2 hours after installation.

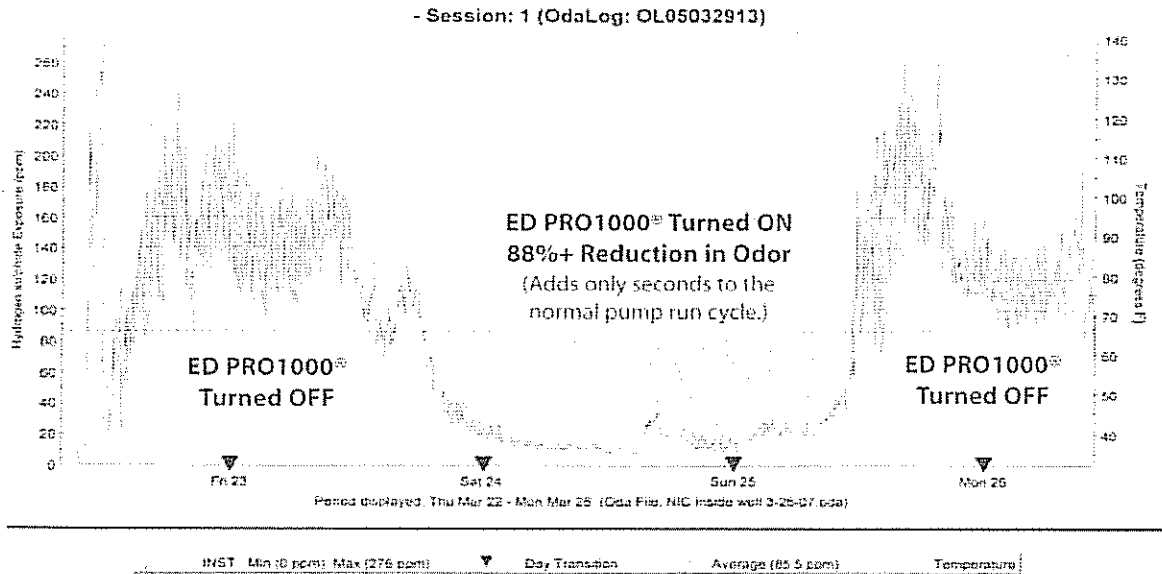


Benefits of Using ED PRO1000[®] Patented Technology



DRAMATIC ODOR REDUCTION:

The graph below shows ED PRO1000[®] dramatically reducing the growth of biofilm, which produces odor causing H₂S/H₂SO₄ (sulfuric acidic gases); eliminating the problem rather than treating the symptom.



- cause of industrial death
- Reduces the need to scrub well walls and equipment

REDUCES BIOLOGICAL DEMAND

- Keeps the good bugs alive
- Keeps the medium homogenous
- Aerates sewage

ED PRO1000[®] UNIT FEATURES

- Robust in construction
- Made from Stainless Steel components
- Easy to assemble in Modular format
- Self cleansing in operation
- Easily removed or offset

PCT/AU/2007/001083



TO CONTACT US

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Email: info@anuewellwashers.com

Website: www.anuewellwashers.com

11/15/2007

Telephone: 727-458-8361

Accell-Pro2 Trial At Pine Grove PA – Addendum Interim Report Feb. 27, 2008

SECTION 3: PHYSICAL PROPERTIES			
Boiling Point:	>100°C (212° F)	Appearance:	Clear, dark amber liquid.
Freezing Point:	<0°C (32°F)	Odor:	Non-obnoxious - similar to apple cider.
Percent volatile (volume):	70-73%	Specific gravity:	1.02 - 1.05
Vapor pressure:	Same as water.	Solubility in water:	Complete.
Vapor density:	Not applicable.	Evaporation rate:	Same as water.
SECTION 4: FIRE AND EXPLOSION HAZARD DATA			
Flash Point:	> 200 °F		
Extinguishing media:	Water, CO ₂ , chemical foam.		
Special fire fighting procedures:	None.		
Unusual fire and explosion hazards:	None.		
Flammable limits (by volume):	Not applicable.		
SECTION 5: HEALTH HAZARD DATA			
Type of Exposure	Reaction	Emergency and First Aid Procedures	
Skin Contact	May cause mild irritation.	Rinse off with water. If irritation persists, contact physician.	
Eye Contact	May cause mild irritation.	Rinse with water. If irritation persists, contact physician.	
Vapor Inhalation	Not applicable.		
Ingestion	May cause gastrointestinal irritation with nausea and diarrhea.	If symptoms persist, contact physician.	
SECTION 6: TOXICOLOGICAL INFORMATION			
Non-toxic; oral rat LD ₅₀ : Estimated to be >5g/kg.		Contains only ingredients that are recognized as safe in food grade applications in accordance with U.S. Food and Drug Administration (FDA) 21CFR 178.3400, and/or found on the GRAS list, Parts 182 and 184.	

SECTION 7: REACTIVITY DATA

Stability:	Stable.
Hazardous polymerization:	Will not occur.
Conditions to avoid:	Storage in elevated temperatures or direct sunlight for prolonged periods. Do NOT freeze.
Materials to avoid:	Strong acid, bases, oxidative agents and quaternary disinfectants can degrade/inactivate enzymes.
Hazardous decomposition products:	None.
pH:	4.0 – 4.5

SECTION 8: SPILL OR LEAK PROCEDURES

Steps to be taken if material is released or spilled:	Wash down with water.
Waste disposal method:	Flush into sewer system.

SECTION 9: SPECIAL PROTECTIVE EQUIPMENT**OBSERVE GOOD HOUSEKEEPING / HYGIENE PRACTICES**

Skin:	Rubber gloves recommended.	Ventilation:	Not applicable.
Eyes:	Safety goggles recommended.	Other equipment:	Not applicable.
Nose/mouth:	Not applicable.		

SECTION 10: SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage:	Store in cool place in closed container. For best performance, use within 36 months.
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SECTION 11: TRANSPORT INFORMATION

Department of transportation (DOT) shipping label:	None.
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**Florida Environmental
Division**

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Telephone 904-356-5881
Fax 904-356-8717



Jacksonville • Orlando • Tampa • Ft. Lauderdale

December 18, 2008

CITY OF NEPTUNE BEACH WWTF – ANUE ED PRO2000 TOTAL NITROGEN REMOVAL

Facility Name: City of Neptune Beach WWTF Facility ID: FL0020427
County: Duval Facility Address: 2010 Forest Avenue
DEP Office: Northeast District Neptune Beach, Florida, 32266

Treatment Process Summary:

Plant 1- 0.90 MGD Contact/Stabilization
Plant 2- 0.60 MGD Contact/Stabilization
Discharge: To Beaches Outfall (Sherman Point)

Power & Pumps, Inc. is pleased to provide you with a quotation for your project as follows:

Anue Environmental Ed Pro 2000, APIA Protein and dosing equipment based on contract agreement for the following yearly time frames. All prices at this time are strictly budgetary and are subject to change based upon variables required to reduce effluent Total Nitrogen to 5 PPM.

<u>One Year Contract</u>	<u>Two Year Contract</u>	<u>Three Year Contract</u>	<u>5 Year Contract</u>
\$92,100.00 per year	\$89,337.00 per year	\$87,600.00 per year	\$82,900.00 per year

Total system price includes Power & Pumps, Inc. providing all items listed above as well as supervision labor, materials, and equipment to necessary to complete in a safe and professional manner the following tasks:

- Deliver additives to established and newly identified dosing locations within the collection system.
- Power & Pumps is responsible for each automated site location, site preparation, and installation of metering equipment and reservoir tanks as needed.
- Power & Pumps will be responsible for keeping an adequate inventory of additive in all storage vessels in order to provide for uninterrupted operation.
- The additive shall be delivered by bulk tanker trucks (or other cost effective means of Transportation) designed and licensed to transport the material and stored on site in doubled wall vessels appropriate to the chemical being staged and meets all necessary criteria for spill prevention and containment consistent with applicable laws.
- Power & Pumps shall be responsible for all shipments to the established dosing locations.
- Power & Pumps shall provide all tanks, pumps, controllers and any related equipment required to control to all automated treatment systems.



Sales and or State taxes, if applicable, are not included. If tax exempt, please include copy of Tax Exempt document with order. Payment terms are net 30 days subject to credit approval.

If you have any questions or require additional information please contact me toll free at (800) 226-5050 or locally at (904) 356-5881, extension 4136.

Thank you for the opportunity to provide you with quality products and service.

Sincerely,

Chris Skintges, E.I.
Power & Pumps, Inc.
Environmental Sales Engineer
Office: 904.356.5881 Ext. 4136
Fax: 904.356.8717
Cell: 904.813.1042
Email: cskintges@powerandpumps.com

