



Florida Department of Environmental Protection

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590
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Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

STATE OF FLORIDA DOMESTIC WASTEWATER FACILITY PERMIT

PERMITTEE:

JEA

PERMIT NUMBER:

FL0026450 (Major)

PA FILE NUMBER:

FL0026450-005-DW1P

ISSUANCE DATE:

May 11, 2009

EXPIRATION DATE:

May 10, 2014

RESPONSIBLE AUTHORITY:

Paul Steinbrecher, P.E., Director
Permitting and Regulatory Compliance
21 West Church Street, T-8
Jacksonville, Florida 32202-3139
Telephone Number: (904) 665-5653

FACILITY:

JEA District II WRF
1840 Cedar Bay Road
Jacksonville, Florida 32218
Duval County
Latitude: 30° 25' 32" N Longitude: 81° 37' 07" W

This permit is issued under the provisions of Chapter 403, Florida Statutes, and applicable rules of the Florida Administrative Code and constitutes authorization to discharge to waters of the state under the National Pollutant Discharge Elimination System. This permit is issued in conjunction with the Administrative Order (AO 129 NE). The above named permittee is hereby authorized to (operate or construct) the facilities in accordance with the documents attached hereto and specifically described as follows:

:

TREATMENT FACILITIES:

To operate an existing 10.00 million gallon per day (MGD) annual average daily flow (AADF) wastewater treatment facility (WWTF) consisting of two parallel treatment trains (Plant 1 and Plant 2).

Δ Plant 1 (south plant) consists of the following process units:

- One mechanical bar screen with a capacity of 12.5 MGD at PHF, and one manually cleaned bar screen used for backup;
- One 0.646-million gallons (MG) primary clarifiers with a surface area of 7,854 ft²;

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- Two 22,050-ft³ (183,015-gallon) anoxic zones at the head of the train followed by two 147,000-ft³ (1.256-MG) aeration zones;
- Two 0.823-MG secondary clarifiers with a surface area of 7,854-ft² each.

Δ Plant 2 (north plant) consists of the following process units:

- One mechanical bar screen with a capacity of 12.5 MGD at PHF, and one manually cleaned bar screen used for backup;
- Two 0.248-MG primary clarifiers with a surface area of 3,318 square feet each;
- Two 15,100-ft³ (125,934-gallon) anoxic zones at the head of the train followed by two 201,344-ft³ (1.679-MG) aeration zones;
- Two 0.571-MG secondary clarifiers with a surface area of 6,362 square feet each.

The clarifier supernatant from the two plants is combined. One portion of the water is conveyed to two rotary disk filters with a capacity of 11.2 MGD PHF to provide tertiary treatment to reuse, and then to an ultraviolet (UV) high-level disinfection train which consists of four UV banks (104 lamps). The other portion of water is conveyed to an ultraviolet (UV) basic-level disinfection train which consists of two banks (40 lamps) prior to the surface water discharge.

DISPOSAL OF EFFLUENT:

Surface Water Discharge: An existing 10.0 MGD AADF permitted discharge to St. Johns River (Class III marine waters –WBID 2213C) at Discharge Location (D-001), which is 54 inches in diameter, approximately 600 feet in length from the shore, and discharges at a depth of approximately 13 feet. The point of discharge is located southwest of Drummond Point and east of main shipping channel, approximately at latitude 30° 24' 28.3" N, longitude 81° 36' 24.2" W.

REUSE OF EFFLUENT:

Reuse (R-001): District II WRF has a 5.00 MGD AADF design capacity with a high-level disinfection reuse system (R-001) consisting of:

- Land Application (R-001 Site 1): A 0.120 MGD AADF permitted capacity slow-rate restricted public access land application system (R-001 Site 1) consisting of a 19- acre spray irrigation system. The R-001 Site 1 is located approximately at latitude 30° 25' 32" N and longitude 81° 37' 07" W.
- Industrial use (R-001 Site 2): A 2.24 MGD AADF permitted capacity for industrial use of reclaimed water to the Northside Generating Station (R-001 Site 2). The industrial reuse of reclaimed water to the Northside Generating Station (Part VII, Rule 62-610.652 FAC) including pump seals, quench water, ash conditioning and dry scrubbers.
- Industrial use (R-001 Site 3): A 5.0 MGD AADF design capacity reuse of reclaimed water at Cedar Bay Generating Station. The system is designed to meet restricted access reuse requirements. The reclaimed water for the cooling tower meets restricted access requirements under Part VII, Rule 62-610.652 FAC. On-site reuse can include boiler makeup, service water, ash pug mill makeup water, and coal area washdown.

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- Industrial use (R-001 Site 4): A 2.17 MGD AADF design capacity reuse of reclaimed water at St. John River Power Park. The system is designed to meet restricted access reuse requirements. The reclaimed water for the cooling tower meets restricted access requirements under Part VII, Rule 62-610.652 FAC. On-site reuse can include boiler makeup, service water.

Reuse of reclaimed (R-001) is summarized below:

User Name	Type of Use	Capacity (MGD)
District 2 19-acre Spray Irrigation System	Slow-rate public restricted public access	0.120 MGD AADF
Northside Generating Station Project	Industrial Use	Up to 2.24 MGD AADF
Cedar Bay Generating Station Project	Industrial Use	Up to 5.00 MGD AADF
St. Johns River Power Park	Industrial Use	Up to 2.17 MGD AADF
Total Permitted Capacity of Reuse		5.00 MGD AADF

IN ACCORDANCE WITH: The limitations, monitoring requirements, and other conditions set forth in this cover sheet and Part I through Part X on pages 1 through 33 of this permit.

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I. RECLAIMED WATER AND EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Surface Water Discharges

- During the period beginning on the issuance date and lasting through the expiration date of this permit, the permittee is authorized to discharge effluent from Outfall D-001 to St. Johns River (Class III marine water – WBID 2213C). Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with Condition I.C.7:

			Effluent Limitations				Monitoring Requirements			
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Flow, from the Outfall D-001 to St. Johns River	MGD	Maximum	10.0	Report	-	-	Continuous	Recording flow meters and totalizers	EFD-1	See Cond.I. A.4
BOD, Carbonaceous 5-day, 20°C	mg/L	Maximum	20.0	25.0	40.0	60.0	5 Days/Week	24-hour flow proportioned composite	EFD-1	
Percent Removal - BOD, Carbonaceous 5-day, 20°C	%	Minimum		85.0			5 Days/Week	Calculated	CAL-1	See Cond. I.A.6
Solids, Total Suspended	mg/L	Maximum	20.0	30.0	45.0	60.0	5 Days/Week	24-hour flow proportioned composite	EFD-1	
Percent Removal -Solids, Total Suspended	%	Minimum		85.0			5 Days/Week	Calculated	CAL-1	See Cond. I.A.6
pH	s.u.	Range	-	-	-	6.5 to 8.5	Continuous	Meter	EFD-1	See Cond.I. A.3
Oxygen, Dissolved (DO)	mg/L	Minimum	-	-	-	4.0	7 Days/Week	Meter or Grab	EFD-1	See Cond. I.A.7

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			Effluent Limitations				Monitoring Requirements			
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Ultraviolet Light Dosage	mW-s/cm ²	Minimum	-	-	-	-	7 Days/Week	Monitored	EFF-1	See Cond. I.A.8
Ultraviolet Light Transmittance	%	Minimum	-	-	-	-	7 Days/Week	Monitored	EFF-1	See Cond. I.A.8
Ultraviolet Light Intensity	MW/c m ²	Minimum	-	-	-	-	7 Days/Week	Monitored	EFF-1	See Cond. I.A.8
Coliform, Fecal	See Permit Condition I.A.5.						5 Days/Week	Grab	EFD-1	
Nitrogen, Total (as N)	mg/L	Maximum	Report	Report	-	Report	Daily (5days/wk)	24-hour flow proportioned composite	EFD-1	See Cond. I.A.12
Nitrogen, Total (as N) (TMDL TN Load)	-	Maximum	Report (Annual Total Mass Load)	Report (Monthly Total Mass Load)	-	-	Monthly	Calculated	CAL-2	See Cond. I.A.12
Copper, Total Recoverable	µg/L	Maximum	-	-	-	3.7	Monthly	24-hour flow proportioned composite	EFD-1	See Cond. I.A.9
Total Cyanide	µg/L	Maximum	-	-	-	1.0	Monthly	Grab	EFD-1	See Cond. I.A.9
Nitrogen, Organic, Total (as N)	mg/L	Maximum	-	-	-	Report	Monthly	24-hour flow proportioned composite	EFD-1	See Cond. I.A.15
Nitrogen, Kjeldahl, Total (as N)	mg/L	Maximum	-	-	-	Report	Monthly	24-hour flow proportioned composite	EFD-1	See Cond. I.A.15

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			Effluent Limitations				Monitoring Requirements			
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Nitrite plus Nitrate, Total (as N)	mg/L	Maximum	-	-	-	Report	Monthly	24-hour flow proportioned composite	EFD-1	See Cond. I.A.15
Nitrogen, Ammonia, Total (as N)	mg/L	Maximum	-	-	-	Report	Monthly	24-hour flow proportioned composite	EFD-1	See Cond. I.A.15
Phosphorus, Total (as P)	mg/L	Maximum	-	-	-	Report	Monthly	24-hour flow proportioned composite	EFD-1	See Cond. I.A.15
Phosphate, Ortho (as P)	mg/L	Maximum	-	-	-	Report	Monthly	Filtered grab	EFD-1	See Cond. I.A.15
Chronic, Whole Effluent Toxicity	See Permit Condition I.A.16								EFD-1	

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

Monitoring Location Site Number	Description of Monitoring Location
EFD-1	Sample point after disinfection and prior to discharge to the river (from the river discharge wet well).
EFF-1	Sample point at the UV disinfection channels (Basic Level).
CAL-1	Calculated percent removal of CBOD5 or TSS
CAL-2	Calculated monthly or annual mass load of the total nitrogen.

3. Hourly measurement of pH during the period of required operator attendance may be substituted for continuous measurement. *[Chapter 62-601, Figure 2, Footnotes 1 and 2]*
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. 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. The monthly average effluent carbonaceous biochemical oxygen demand 5-day (CBOD5) and total suspended solids concentrations shall not exceed 15% of the respective influent values (85% removal). *[62-620.620(1)(o) and (3)]*
7. The average of DO level shall not be less than 5.0 mg/L in a 24-hour period and shall never be less than 4.0 mg/L. Normal daily and seasonal fluctuations above these levels shall be maintained. The lower St. Johns River has an SSAC for DO in accordance with the Lower St. Johns River Basin Management Action Plan (BMAP) adopted on October 10, 2008. *[62-302.530(30)]*
8. The ultraviolet disinfection system consists of a basic-level ultraviolet disinfection system with two banks per reactor, a total of 5 modules per bank (4 lamps per module) to produce a minimum dosage of 140 mW-s/cm² at the peak flow rate. The UV system shall be monitored for proper operation on each day of operator attendance. The ultraviolet light intensity, ultraviolet light dosage, ultraviolet light transmittance and unit operation shall be monitored and verified. The operation and maintenance shall be performed on a regular basis in accordance with the manufacturer recommended factor of safety. Daily record keeping, routine cleaning and daily system checks of the system shall be conducted and records maintained for review by the Department. *[62-600.440(4)(b)]*

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9. The final limit for total cyanide and total recoverable copper are held in abeyance until the final compliance date listed in Section VI.1. of the permit is complete.
11. The permittee shall be deemed in compliance with the Surface Water Quality Standards for total cyanide, when concentration for the total cyanide in the effluent meet permit limit specified Condition I.A.1 or I.A.2 or shall be undetectable or less than the method detection limit (MDL) level established by Department corresponding to approved analytical method. [62-4.246, 62-302.530(24), F.A.C.]
12. The permittee, JEA, shall meet the aggregate cap through collectively managing the total nitrogen loads from individual JEA facilities (Arlington East WRF -FL0026441; Beacon Hills WWTF - FL0026778; Buckman WWTF - FL0026000; District II WWTF - FL0026450; Jacksonville Heights WWTF-FL0023671; Julington Creek WWTF -FL0043591; Mandarin WRF- FL0023493; Monterey WWTF-FL0023604; Royal Lakes WWTF - FL0026751; San Jose WWTF -FL0023663; San Pablo WWTF-FL0024767; Southwest District WWTF-FL0026468; WoodmereWWTF-FL0026786; and JEA Power Plant-FPL), which are listed in the JEA - Aggregate Total Nitrogen (Permit ID: FL0620564). The monthly mass load and annually mass loads of total nitrogen shall be calculated as follows:

▪ Monthly Mass Load (ML)

$$\text{ML (Lbs/Mon)} = (\text{Flow}(\frac{\text{MG}}{\text{Mon}}) \times \text{TN}(\frac{\text{mg}}{\text{L}}) \times 8.34(\frac{\text{L Lbs}}{\text{MG mg}})$$

Where:

ML = Monthly mass load of total nitrogen; (Lbs/Mon)

Flow = Monthly total volume effluent discharged from D-001 in a given month; (million gallons (MG))

TN = Monthly average concentration of total nitrogen monitored at EFD-1; (mg/L)

▪ Annually Mass Load (AL)

The annual mass load is computed using a rolling twelve (12) – month period. The calculation shall be the sum of the twelve most recent monthly mass loading of total nitrogen starting from the second month following permit issuance month.

14. The Florida water quality criteria and standards shall not be violated as a result of the discharge. [62-620.320(9)] & [62-302.530]
15. Ambient stream monitoring and reporting shall be conducted in accordance with the locations, frequencies, and parameters in the latest, Department approved, version of JEA's Ambient Stream Monitoring Plan. The ambient stream sample event shall be coincided with the week effluent-nutrients sample event collected at EFD-1 as described in Condition I.A.1. JEA will submit to the Department's Northeast District office a report with stream sample data results and graphical analyses for each sample location. Data qualifiers and any important comments concerning the sample event and sample results will be included. The annual report (calendar year monitoring period) shall be submitted to the Northeast District wastewater permitting section by March 1, of the following year. [62-4.240(3)(c)]
16. The permittee shall comply with the following requirements to evaluate chronic whole effluent toxicity of the discharge from outfall D-001.
- a. Effluent Limitation
- (1) Whole effluent chronic toxicity shall not result in an Inhibition Concentration 25% (IC₂₅) less than 100% effluent in any test. [Rule 62-302.530(61), as defined in 62-302.200(14) FAC.]

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- (2) Whole effluent acute toxicity shall not result in a 96-hour LC_{50} less than 100% effluent in any test. [Rule 62-302.500(1)(a)4., F.A.C.]
- b. Monitoring Frequency
 - (1) Routine toxicity tests shall be conducted **once every six months**, starting within 6 months of the most recent test, and lasting for the duration of the permit.
- c. Sampling Requirements
 - (1) For each routine test or additional follow-up test conducted, a total of three *flow proportional 24-hour composite* samples of final effluent shall be collected and used in accordance with the sampling protocol discussed in EPA-821-R-02-013, Section 8.
 - (2) The first sample shall be used to initiate the test. The remaining two samples shall be collected according to the protocol and used as renewal solutions on Day 3 (48 hours) and Day 5 (96 hours) of the test.
 - (3) Samples for routine and additional follow-up tests shall not be collected on the same day.
- d. Test Requirements
 - (1) Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five test dilutions: **100%, 75%, 50%, 25%, and 12.5%** final effluent.
 - (2) The permittee shall conduct a daphnid, *Ceriodaphnia dubia*, Survival and Reproduction Test and a fathead minnow, *Pimephales promelas*, Larval Survival and Growth Test, concurrently.
 - (3) 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 Waters to Freshwater Organisms**, 4th ed., EPA-821-R-02-013. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permittee shall conduct chronic toxicity testing in accordance with the revised method.
 - (4) The control water and dilution water shall be moderately hard water as described in EPA-821-R-02-013, Section 7.
- e. Quality Assurance Requirements
 - (1) A standard reference toxicant (SRT) quality assurance (QA) chronic toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or initiated no more than 30 days before the date of each routine or additional follow-up test conducted. Additionally, the SRT test must be conducted concurrently if the test organisms are obtained from outside the test laboratory unless the test organism supplier provides control chart data from at least the last five monthly chronic toxicity tests using the same reference toxicant and test conditions. If the organism supplier provides the required SRT data, the organism supplier's SRT data and the test laboratory's monthly SRT-QA data shall be included in the reports for each companion routine or additional follow-up test required.
 - (2) If the mortality in the control (0% effluent) exceeds 20% for either species in any test or does not meet "test acceptability criteria", the test for that species (including the control) shall be invalidated and the test repeated. Test acceptability criteria for each species are defined in EPA-821-R-02-013, Section 13.12 (*Ceriodaphnia dubia*) and Section 11.11 (*Pimephales promelas*). The repeat test shall begin within 21 days after the last day of the invalid test.

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- (3) If 100% mortality occurs in all effluent concentrations prior to the end of any test and the control mortality is less than 20% at that time, the test (including the control) shall be terminated with the conclusion that the test fails and constitutes non-compliance.
- (4) Routine and additional follow-up tests shall be evaluated for acceptability based on the observed dose-response relationship as required by EPA-821-R-02-013, Section 10.2.6, and the evaluation shall be included with the bioassay laboratory reports.

f. Reporting Requirements

- (1) Results from all required tests shall be reported on the Discharge Monitoring Report (DMR) as the calculated IC_{25} for each test species.
- (2) A bioassay laboratory report for each routine test shall be prepared according to EPA-821-R-02-013, Section 10, Report Preparation and Test Review, and mailed or e-mailed to the Department at the address below within 30 days after the last day of the test.
- (3) For additional follow-up tests, a single bioassay laboratory report shall be prepared according to EPA-821-R-02-013, Section 10, and mailed or e-mailed within 30 days after the last day of the second valid additional follow-up test.
- (4) Data for invalid tests shall be included in the bioassay laboratory report for the repeat test.
- (5) The same bioassay data shall not be reported as the results of more than one test.
- (6) All bioassay laboratory reports shall be mailed or e-mailed to *Jacksonville*:

Florida Department of Environmental Protection
Northeast District – Wastewater Section
7825 Baymeadows Way, B-200
Jacksonville, Florida 32256-7590

g. Test Failures

- (1) A test fails when the test results do not meet the limits in 16.a.
- (2) Additional Follow-up Tests:
 - (a) If a routine test does not meet the chronic toxicity limitation in 16.a.(1) above, the permittee shall notify the Department at the address above within 21 days after the last day of the failed routine test and conduct two additional follow-up tests on each species that failed the test in accordance with 16.d.
 - (b) The first test shall be initiated within 28 days after the last day of the failed routine test. The remaining additional follow-up tests shall be conducted weekly thereafter until a total of two valid additional follow-up tests are completed.
 - (c) The first additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 75%, 50%, 25%, and 12.5% effluent. The permittee may modify the dilution series in the second additional follow-up test to more accurately bracket the toxicity such that at least two dilutions above and two dilutions below the target concentration and a control are run. All test results shall be statistically analyzed according to the Appendices in EPA-821-R-02-013.
- (3) In the event of three valid test failures (whether routine or additional follow-up tests) within a 12-month period, the permittee shall notify the Department within 21 days after the last day of the third test failure.
 - (a) The permittee shall submit a plan for correction of the effluent toxicity within 60 days after the last day of the third test failure.

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- (b) The Department shall review and approve the plan before initiation.
 - (c) The plan shall be initiated within 30 days following the Department's written approval of the plan.
 - (d) Progress reports shall be submitted quarterly to the Department at the address above.
 - (e) During the implementation of the plan, the permittee shall conduct quarterly routine whole effluent toxicity tests in accordance with 16.d. Additional follow-up tests are not required while the plan is in progress. Following completion or termination of the plan, the frequency of monitoring for routine and additional follow-up tests shall return to the schedule established in 16.b.(1). If a routine test is invalid according to the acceptance criteria in EPA-821-R-02-013, a repeat test shall be initiated within 21 days after the last day of the invalid routine test.
 - (f) Upon completion of four consecutive, valid routine tests that demonstrate compliance with the effluent limitation in 16.a.(1) above, the permittee may submit a written request to the Department to terminate the plan. The plan shall be terminated upon written verification by the Department that the facility has passed at least four consecutive valid routine whole effluent toxicity tests.
 - (g) If a test within the sequence of the four is deemed invalid, but is replaced by a repeat valid test initiated within 21 days after the last day of the invalid test, the invalid test will not be counted against the requirement for four consecutive valid tests for the purpose of terminating the plan.
- (4) If chronic toxicity test results indicate greater than 50% mortality within 96 hours in an effluent concentration equal to or less than the effluent concentration specified as the acute toxicity limit in 16.(a)(2), the Department may revise this permit to require acute definitive whole effluent toxicity testing.
- (5) The additional follow-up testing and the plan do not preclude the Department taking enforcement action for acute or chronic whole effluent toxicity test failures.
17. The Department reserves the right to require the Permittee to conduct a reconnaissance sediment sampling event to include up to six transects with a minimum of three transects located (1) along the outfall, D-001, and approximately 300 feet upstream and 300 feet downstream of the outfall, D-001, for the purpose of establishing final sampling locations for permit monitoring.
18. JEA shall provide an initial report concerning the integrity of the outfall and shall determine and propose an evaluation and analysis method. The initial report shall be submitted to DEP within one year from permit issuance. Then, annual reports shall be submitted based on the approved evaluation and analysis method to indicate the status of the outfall line on or before January 01 of each year.
[BPJ]

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B. Reuse and Land Application Systems

- During the period beginning upon issuance of the permit and lasting through expiration date, the permittee is authorized to direct reclaimed water to Reuse System R-001. Such discharge shall be limited and monitored by the permittee as specified below and reported in accordance with condition I.C.7:

			Reclaimed Water Limitations				Monitoring Requirements			
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Flow, to the reuse system R-001	MGD	Maximum	5.0	Report	-	-	Continuous	Recording flow meters and totalizers	EFA-1	See Cond. I.A.4
BOD, Carbonaceous 5-day, 20°C	mg/L	Minimum	20.0	25.0	45.0	60.0	5 days/week	24-hour flow proportioned composite	EFA-1	
Solids, Total Suspended	mg/L	Maximum	20.0	30.0	45.0	60.0	5 days/week	24-hour flow proportioned composite	EFA-1	
Coliform, Fecal	See Permit Condition I.A.5.						Weekly	Grab	EFA-1	
Ultraviolet Light Dosage	mW-s/cm ²	Minimum	-	-	-	-	7 Days/Week	Monitored	EFF-2	See Cond. I.A.8
Ultraviolet Light Transmittance	%	Minimum	-	-	-	-	7 Days/Week	Monitored	EFF-2	See Cond. I.A.8
Ultraviolet Light Intensity	MW/cm ²	Minimum	-	-	-	-	7 Days/Week	Monitored	EFF-2	See Cond. I.A.8
pH	s.u.	Range	-	-	-	6.0 to 8.5	Continuous	Meter	EFA-1	
Nitrogen, Total (as N)	mg/L	Maximum	Report	Report	-	Report	Weekly	24-hour flow proportioned composite	EFA-1	
Primary Drinking Water Standards	mg/L	-	See Condition I.C.8				Annually	24-hour flow proportioned composite	RWS-A	

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			Reclaimed Water Limitations				Monitoring Requirements			
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Secondary Drinking Water Standards	mg/L	-	See Condition I.C.8				Annually	24-hour flow proportioned composite	RWS-A	
Giardia	Cysts/100L	Maximum	-	-	-	Report	Once every two years	Filtered	EFA-1	See Cond. I.B.3
Cryptosporidium	Cysts/100L	Maximum	-	-	-	Report	Once every two years	Filtered	EFA-1	See Cond. I.B.3

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2. Effluent 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
EFA-1	Sample point immediately after disinfection (from the reclaimed water discharge wet well)
EFF-2	Sample point at the UV disinfection channels (High-Level).
EFF-3	Sample point at the UV disinfection channels
RWS-A	Sample point (same as EFA-1) for Primary and Secondary drinking water standards.

3. Intervals between sampling for Giardia and Cryptosporidium shall not exceed two years. Sampling results shall be reported on DEP Form 62-610.300(4)(a)4 which is attached to this permit. This form shall be submitted to the Department and to DEP's Reuse Coordinator in Tallahassee. [62-610.463(4)]

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C. Other Limitations and Monitoring and Reporting Requirements

- 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 and reported in accordance with condition I.C.7:

			Limitations				Monitoring Requirements			
Parameter	Units	Max/Min	Annual Average	Monthly Average	Weekly Average	Single Sample	Monitoring Frequency	Sample Type	Monitoring Location Site Number	Notes
Flow, though the WWTF		Maximum	10.0	Report	-	-	Daily (7 Days/wk)	Calculated	CAL-3	See Cond. I.C.3
Percent Capacity (TMADF/Permitted Capacity) x 100	%	Maximum	-	Report (Avg.)	-		Monthly	Calculated	CAL-4	See Cond. I.C.3
BOD, Carbonaceous 5-day, 20°C	MG/L	Maximum	-	Report	-	-	Daily (5days/wk)	24-hour flow proportioned composite	INF-1	See Cond. I.C.4
Solids, Total Suspended	MG/L	Maximum	-	Report	-	-	Daily (5days/wk)	24-hour flow proportioned composite	INF-1	See Cond. I.C.4

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

Monitoring Location Site Number	Description of Monitoring Location
CAL-3	Calculated total flow through the WWTF, which is the sum of flow from the outfall D-001 and to Reuse system R-001.
CAL-4	Calculated percent of the three month average daily flow.
INF-1	Influent sample point at the headworks serving base, after screening prior to grit removal, prior to biological, chemical, or physical treatment or dilution

3. Flow through the WWTF is the sum of flow from the outfall D-001 and flow to the reuse system R-001 and shall not exceed 10.00 MGD AADF.
4. 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. Parameters which must be monitored as a result of a surface water discharge shall be analyzed using a sufficiently sensitive method to assure compliance with applicable water quality standards and effluent limitations in accordance with 40 CFR (Code of Federal Regulations) Part 136. All monitoring shall be representative of the monitored activity. [62-620.320(6)]
6. The sample collection, analytical test methods and method detection limits (MDLs) applicable to this permit shall be conducted using a sufficiently sensitive method to ensure compliance with applicable water quality standards and effluent limitations and shall be in accordance with Rule 62-4.246, Chapters 62-160 and 62-601, F.A.C., and 40 CFR 136, as appropriate. The list of Department established analytical methods, and corresponding MDLs (method detection limits) and PQLs (practical quantitation limits), which is titled "FAC 62-4 MDL/PQL Table (April 26, 2006)" is available at <http://www.dep.state.fl.us/labs/library/index.htm> . The MDLs and PQLs as described in this list shall constitute the minimum acceptable MDL/PQL values and the Department shall not accept results for which the laboratory's MDLs or PQLs are greater than those described above unless alternate MDLs and/or PQLs have been specifically approved by the Department for this permit. Any method included in the list may be used for reporting as long as it meets the following requirements:
- The laboratory's reported MDL and PQL values for the particular method must be equal or less than the corresponding method values specified in the Department's approved MDL and PQL list;
 - The laboratory reported MDL for the specific parameter is less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Parameters that are listed as "report only" in the permit shall use methods that provide an MDL, which is equal to or less than the applicable water quality criteria stated in 62-302, F.A.C.; and
 - If the MDLs for all methods available in the approved list are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated MDL shall be used.

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When the analytical results are below method detection or practical quantitation limits, the permittee shall report the actual laboratory MDL and/or PQL values for the analyses that were performed following the instructions on the applicable discharge monitoring report.

Where necessary, the permittee may request approval of alternate methods or for alternative MDLs or PQLs for any approved analytical method. Approval of alternate laboratory MDLs or PQLs are not necessary if the laboratory reported MDLs and PQLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in Chapter 62-302, F.A.C. Approval of an analytical method not included in the above-referenced list is not necessary if the analytical method is approved in accordance with 40 CFR 136 or deemed acceptable by the Department. [62-4.246, 62-160]

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)]
7. Monitoring requirements under this permit are effective on the first day of the second month following permit issuance. Until such time, the permittee shall continue to monitor and report in accordance with previously effective permit requirements, if any. During the period of operation authorized by this permit, the permittee shall complete and submit to the Department Discharge Monitoring Reports (DMRs) in accordance with the frequencies specified by the REPORT type (i.e., monthly, toxicity, quarterly, semiannual, annual, etc.) indicated on the DMR forms attached to this permit. Monitoring results for each monitoring period shall be submitted in accordance with the associated DMR due dates below.

REPORT Type	Monitoring Period	Due Date
Monthly or Toxicity	first day of month – last day of month	28 th day of following month
Quarterly	January 1 - March 31	April 28
	April 1 – June 30	July 28
	July 1 – September 30	October 28
	October 1 – December 31	January 28
Semi-annual	January 1 – June 30	July 28
	July 1 – December 31	January 28
Annual	January 1 – December 31	January 28

DMRs shall be submitted for each required monitoring period including months of no discharge. 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 Compliance Evaluation Section, Mail Station 3551
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

[62-620.610(18)][62-601.300(1),(2), and (3)]

8. During the period of operation authorized by this permit, reclaimed water or effluent shall be monitored annually for the primary and secondary drinking water standards contained in Chapter 62-

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550, F.A.C., (except for turbidity, total coliforms, color, and corrosivity). Twentyfour hour composite samples shall be used to analyze reclaimed water or effluent for the primary and secondary drinking water standards. These monitoring results shall be reported to the Department annually on the DMR. During years when a permit is not renewed, a certification stating that no new non-domestic wastewater dischargers have been added to the collection system since the last reclaimed water or effluent analysis was conducted may be submitted in lieu of the report. The annual reclaimed water or effluent analysis report or the certification shall be completed and submitted in a timely manner so as to be received by the Department – Northeast District Office by January 28 of each year. Approved analytical methods identified in Rule 62-620.100(3)(i), F.A.C., shall be used for the analysis. If no method is included for a parameter, methods specified in Chapter 62-550, F.A.C., shall be used. [62-601.300(4)][62-601.500(3)]

9. The permittee shall submit an Annual Reuse Report using DEP Form 62-610.300(4)(a)2. on or before January 1 of each year. [62-610.870(3)]
10. The permittee shall maintain an inventory of storage systems. The inventory shall be submitted to the Department at least 30 days before reclaimed water will be introduced into any new storage system. The inventory of storage systems shall be attached to the annual submittal of the Annual Reuse Report. [62-610.464(5)]
11. Unless specified otherwise in this permit, all reports and other information required by this permit, including 24-hour notifications, shall be submitted to or reported to, as appropriate, the Department's Northeast District Office at the address specified below:

Northeast District Office
Attn: Wastewater Section
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590

Phone Number - 904-807-3300
FAX Number - 904-448-4366

All FAX copies shall be followed by original copies. All reports and other information shall be signed in accordance with the requirements of Rule 62-620.305, F.A.C. [62-620.305]

12. All reports and other information shall be signed in accordance with the requirements of Rule 62-620.305, F.A.C. [62-620.305]

II. RESIDUALS MANAGEMENT REQUIREMENTS

1. The method of residuals use or disposal by this facility is pumped or transport to the JEA Buckman RMF for further treatment and final disposal or disposal in a Class I or II solid waste landfill.
2. The permittee shall be responsible for proper treatment, management, use, and land application or disposal of its residuals. [62-640.300(5)]
3. The permittee shall not be held responsible for treatment, management, use, or land application violations that occur after its residuals have been accepted by a permitted residuals management facility with which the source facility has an agreement in accordance with Rule 62-640.880(1)(c), F.A.C., for further treatment, management, use or land application. [62-640.300(5)]

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4. Disposal of residuals, septage, and other solids in a solid waste landfill, or disposal by placement on land for purposes other than soil conditioning or fertilization, such as at a monofill, surface impoundment, waste pile, or dedicated site, shall be in accordance with Chapter 62-701, F.A.C. [62-640.100(6)(k)3 & 4]
5. If the permittee intends to accept residuals from other facilities, a permit revision is required pursuant to Rule 62-640.880(2)(d), F.A.C. [62-640.880(2)(d)]
6. The permittee shall keep hauling records to track the transport of residuals between facilities. The hauling records shall contain the following information:

Source Facility		Residuals Management Facility or Treatment Facility	
1.	Date and Time Shipped	1.	Date and Time Received
2.	Amount of Residuals Shipped	2.	Amount of Residuals Received
3.	Degree of Treatment (if applicable)	3.	Name and ID Number of Source Facility
4.	Name and ID Number of Residuals Management Facility or Treatment Facility	4.	Signature of Hauler
		5.	Signature of Responsible Party at Residuals Management Facility or Treatment Facility

These records shall be kept for five years and shall be made available for inspection upon request by the Department. A copy of the hauling records information maintained by the source facility shall be provided upon delivery of the residuals to the residuals management facility or treatment facility. The permittee shall report to the Department within 24 hours of discovery any discrepancy in the quantity of residuals leaving the source facility and arriving at the residuals management facility or treatment facility. [62-640.880(4)]

7. Storage of residuals or other solids at the permitted facility shall require prior written notification to the Department. [62-640.300(4)]

III. GROUND WATER REQUIREMENTS

1. The Part II slow-rate restricted public access land application system, Site 1, will be used as the model site for ground water monitoring. Ground water monitoring is not required under this permit at the Part VII land application systems, Sites 2, 3, and 4. This exception is subject to revocation if subsequent monitoring reveals that permit limits are not met, or if the Permittee fails to conduct other monitoring as required to assess compliance. [62-601.700][62-520.600]

Construction Requirements

2. The permittee shall give at least 72-hours notice to the Department's Northeast District Office, prior to the installation of any monitoring wells detailed in this permit. [62-4.070]
3. Prior to construction of new ground water monitoring wells, a soil boring shall be made at each new monitoring well location in order to establish the well depth and screen interval. [62-4.070][62-520.600 and 62-520.900(3)]

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4. Within 30 days after installation of a new monitoring well, the permittee shall submit to the Department's Northeast District Office detailed information on the well's location and construction on the attached DEP Form(s) 62-522.900(3), Monitor Well Completion Report. [62-520.600]

Operational Requirements

5. For the Part II land application system, Site 1, all ground water quality criteria specified in Chapter 62-520, F.A.C., shall be met at the edge of the zone of discharge. The zone of discharge for this project shall extend horizontally 100 feet from the application site or to the facility's property line, whichever is less, and vertically to the base of the surficial aquifer. [62-520.200(23)][62-520.400 and 62-520.410]
6. The ground water minimum criteria specified in Rule 62-520.400 F.A.C., shall be met within the zone of discharge. [62-520.400 and 62-520.420(4)]
7. During the period of operation authorized by this permit, the permittee shall sample ground water in accordance with this permit and the approved ground water monitoring plan prepared in accordance with Rule 62-520.600, F.A.C. [62-520.600][62-610.412, 62-610.463, 62-610.510, 62-610.568, 62-610.613]
8. The following monitoring wells shall be sampled in accordance with the monitoring frequencies specified in Permit Condition III.9. for Reuse System R-001 Site 1. Quarterly sampling must be reasonably spaced to be representative of potentially changing conditions.

Monitoring Well ID	Alternate Well Name and/or Description of Monitoring Location	Depth (Feet)	Aquifer Monitored	New or Existing
MWB-1	BMW-1; Extreme NW corner of site.	39	Surficial	Existing
MWC-2	CMW-2; Extreme NE corner of site.	40	Surficial	Existing
MWC-3	CMW-3; Along east margin of site, approx. 450' south of CMW-2.	40	Surficial	Existing
MWC-4	CMW-4; Midway along northern site margin.	40	Surficial	Existing

MWB = Background; MWI = Intermediate; MWC = Compliance

[62-520.600][62-610.412]

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9. The following parameters shall be analyzed for each of the monitoring well(s) identified in Permit Condition(s) III. 8:

Parameter	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Water Level Relative to NGVD	Report	FEET	In-situ	Quarterly
Nitrite plus Nitrate, Total (as N)	10	MG/L	Grab	Quarterly
Solids, Total Dissolved (TDS)	500	MG/L	Grab	Quarterly
Arsenic, Total Recoverable	10	UG/L	Grab	Quarterly
Chloride (as Cl)	250	MG/L	Grab	Quarterly
Cadmium, Total Recoverable	5	UG/L	Grab	Quarterly
Chromium, Total Recoverable	100	UG/L	Grab	Quarterly
Lead, Total Recoverable	15	UG/L	Grab	Quarterly
Coliform, Fecal	4	#/100ML	Grab	Quarterly
pH	6.5 to 8.5	SU	In-situ	Quarterly
Sulfate, Total	250	MG/L	Grab	Quarterly
Turbidity	Report	NTU	In-situ	Quarterly

[62-520.600(11)(b)] [62-601.300(3), 62-601.700, and Figure 3 of 62-601][62-601.300(6)]
[62-520.300(9)]

10. If the concentration for any constituent listed in Permit Condition III. 9. in the natural background quality of the ground water is greater than the stated maximum, or in the case of pH is also less than the minimum, the representative natural background quality shall be the prevailing standard. [62-520.420(2)]

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11. In accordance with Part D of Form 62-620.910(10), water levels shall be recorded before evacuating wells for sample collection. Elevation references shall include the top of the well casing and land surface at each well site (NGVD allowable) at a precision of plus or minus 0.01 foot. [62-610.412(2)(c), 62-610.463(3)(a), 62-610.510(3)(b)]
12. Ground water monitoring wells shall be purged prior to sampling to obtain representative samples. [62-601.700(5)]
13. Analyses shall be conducted on unfiltered samples, unless filtered samples have been approved by the Department's Northeast District Office as being more representative of ground water conditions. [62-520.300(9)]
14. Ground water monitoring parameters shall be analyzed in accordance with Chapter 62-601, F.A.C. [62-620.610(18)]
15. Ground water monitoring test results shall be submitted on Part D of Form 62-620.910(10). For reuse or land application projects, results shall be submitted in accordance with the following schedule. The submitted results shall be for each year during the period of operation allowed by this permit in accordance with Permit Condition I.C.7. [62-520.600(10) and (11)(b)] [62-601.300(3), 62-601.700, and Figure 3 of 62-601] [62-620.610(18)]

SAMPLE PERIOD	REPORT DUE DATE
January - March	April 28
April - June	July 28
July - September	October 28
October - December	January 28

16. If any monitoring well becomes damaged or cannot be sampled for some reason, the permittee shall notify the Department's Northeast District Office immediately and a written report shall follow within seven days detailing the circumstances and remedial measures taken or proposed. Repair or replacement of monitoring wells shall be approved in advance by the Department's Northeast District Office. [62-520.600][62-4.070(3)]
17. All piezometers and monitoring wells not part of the approved ground water monitoring plan are to be plugged and abandoned in accordance with Rule 62-532.500(4), F.A.C., unless there is intent for their future use. [62-532.500(4)]

IV. ADDITIONAL REUSE AND LAND APPLICATION REQUIREMENTS

A. Part II: Slow-Rate/Restricted Access System (R-001 Site 1)

1. Advisory signs shall be posted around the site boundaries to designate the nature of the project area. [62-610.418(1)]
2. Routine aquatic weed control and regular maintenance of storage pond embankments and access areas are required. [62-610.414(8)]
3. The annual average hydraulic loading rate to the Spray irrigation system shall be limited to a maximum of 1.8 inches per week. The hydraulic loading rate shall not produce surface runoff or ponding of the applied reclaimed water. [62-610.423(3) and (4)]

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4. Dairy cattle whose milk is intended for human consumption shall not be allowed on the project area for a period of 15 days after the last application of reclaimed water. No restrictions are imposed on the grazing of other cattle. [62-610.425]
5. Irrigation of edible food crops is prohibited. [62-610.426]
6. Overflows from emergency discharge facilities on storage ponds shall be reported as an abnormal event to the Department's Northeast District Office within 24 hours of an occurrence. The provisions of Rule 62-610.800(9), F.A.C., shall be met. [62-610.800(9)]

B. Part VII : Industrial Reuse (Northside Generating Station, Cedar Bay Generating Station, and St. Johns River Power Park)

7. The permittee shall not implement the portion of reuse for the “CW Pump Seals” until such time as approval from the Industrial Wastewater Section has been received to account for this reuse water joining the Non-Contact Cooling water for discharge to the St. Johns River under the Northside Generating Station NPDES permit.
8. Advisory signs shall be posted around the portions of the industrial site in which reclaimed water is used and at the main entrances to the industrial site to notify employees at the industrial site and the public of the nature of the reclaimed water use. [62-610.658(19)]
9. No cross-connections to potable water systems shall be allowed. [62-610.660(1)]
10. For all systems, there shall be readily identifiable “non-potable” or “do not drink” notices, marking, or coding on application/distribution facilities and appurtenances. [62-610.660(2)]
11. The potable water supply has an approved backflow prevention program. The permittee shall conduct an evaluation of the potential of cross-connections and backflow to the reclaimed water distribution system in accordance with 62-610.660(3), F.A.C. [62-610.660(3), 8-8-99].
12. “Restricted access” means that access to the reuse site by the general public is controlled and that access to the reuse site by the public is infrequent. Such sites will be accessible to authorized operators and farm personnel. [62-610.200(49)]
13. Reclaimed water may be used in open cooling towers at Cedar Bay. As an alternative to the requirements in Rule 62-610.668(2)(b), F.A.C., all of the following requirements shall apply:
 1. Preapplication waste treatment shall result in reclaimed water that meets secondary treatment and basic disinfection.
 2. A 300-foot setback distance shall be provided from the cooling tower that receives reclaimed water to the site service area property line.
 3. The cooling tower shall be designed and operated to minimize aerosol drift to areas beyond the site property line that are accessible to the public.
 4. The cooling tower shall be designed, operated, and maintained utilizing best engineering practices to control biological growth. [62-610.668 FAC].
14. Maximum obtainable separation of reclaimed water lines and potable water lines shall be provided and the minimum separation distances specified in Rule 62-610.469(7), F.A.C., shall be provided. Reuse facilities shall be color coded or marked. Underground piping which is not manufactured of metal or concrete shall be color coded using Pantone Purple

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522C using light stable colorants. Underground metal and concrete pipe shall be color coded or marked using purple as the predominant color. [62-610.469(7)]

15. Intervals between sampling for Giardia and Cryptosporidium shall not exceed two years. Sampling results shall be reported on DEP Form 62-610.300(4)(a)4 which is attached to this permit. This form shall be submitted to the Department and to DEP's Reuse Coordinator in Tallahassee. [62-610.463(4)]

16. Industrial Uses of Reclaimed Water.

- (1) This type of reuse system involves the use of reclaimed water from domestic wastewater sources for cooling water, wash water, or process water at industrial facilities.
- (2) Use of treated industrial wastewaters for land application, recycling within the industrial facility, or other reuse or disposal methods is not governed by Chapter 62-610, F.A.C. Reuse or disposal of industrial wastewaters is regulated by the Department's industrial wastewater rules.
- (3) The reclaimed water flowing out of the industrial process shall be considered as an industrial wastewater and shall be subject to regulation under Chapters 62-4, 62-302, 62-520, 62-521, 62-522, 62-620, 62-621, 62-650, 62-660, 62-670, 62-671, 62-672, and 62-673, F.A.C., except as provided in Rule 62-610.668, F.A.C. [62-610.65].

V. OPERATION AND MAINTENANCE REQUIREMENTS

A. Staffing Requirements

1. During the period of operation authorized by this permit, the wastewater facilities shall be operated under the supervision of a(n) operator(s) certified in accordance with Chapter 62-602, F.A.C. In accordance with Chapter 62-699, F.A.C., this facility is a Category II, Class A facility and, at a minimum, operators with appropriate certification must be on the site as follows:

A Class C or higher operator 24 hours/day for 7 days/week. The lead/chief operator must be a Class A operator, or higher.

2. The lead/chief operator shall be employed at the plant full time. "Full time" shall mean at least 4 days per week, working a minimum of 35 hours per week, including leave time. A licensed operator shall be on-site and in charge of each required shift for periods of required staffing time when the lead/chief operator is not on-site. An operator meeting the lead/chief operator class for the treatment plant shall be available during all periods of plant operation. "Available" means able to be contacted as needed to initiate the appropriate action in a timely manner. [62-699.311(10), (6) and (1)]

B. Capacity Analysis Report and Operation and Maintenance Performance Report Requirements

3. The application to renew this permit shall include a detailed operation and maintenance performance report prepared in accordance with Rule 62-600.735, F.A.C. [62-600.735(1)]

C. Recordkeeping Requirements

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4. The permittee shall maintain the following records and make them available for inspection on the site of the permitted facility.
 - a. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken;
 - b. Copies of all reports required by the permit for at least three years from the date the report was prepared;
 - c. Records of all data, including reports and documents, used to complete the application for the permit for at least three years from the date the application was filed;
 - d. Monitoring information, including a copy of the laboratory certification showing the laboratory certification number, related to the residuals use and disposal activities for the time period set forth in Chapter 62-640, F.A.C., for at least three years from the date of sampling or measurement;
 - e. A copy of the current permit;
 - f. A copy of the current operation and maintenance manual as required by Chapter 62-600, F.A.C.;
 - g. A copy of any required record drawings;
 - h. Copies of the licenses of the current certified operators; and
 - i. Copies of the logs and schedules showing plant operations and equipment maintenance for three years from the date of the logs or schedules. The logs shall, at a minimum, include identification of the plant; the signature and license number of the operator(s) and the signature of the person(s) making any entries; date and time in and out; specific operation and maintenance activities, including any preventive maintenance or repairs made or requested; results of tests performed and samples taken, unless documented on a laboratory sheet; and notation of any notification or reporting completed in accordance with Rule 62-602.650(3), F.A.C. The logs shall be maintained on-site in a location accessible to 24-hour inspection, protected from weather damage, and current to the last operation and maintenance performed. [62-620.350, 62-602.650]

VI. SCHEDULES

1. This permit is issued in conjunction with Administrative Order (AO) No. 129NE. The AO contains the requirements and schedule for compliance with total cyanide, total recoverable copper, and chronic toxicity test. [62-620.320(1) and (2)] [62-4.070(3)]
2. If the permittee wishes to continue operation of this wastewater facility after the expiration date of this permit, the permittee shall submit an application for renewal no later than one-hundred and eighty days (180) prior to the expiration date of this permit. Application shall be made using the appropriate forms listed in Rule 62-620.910, F.A.C., including submittal of the appropriate processing fee set forth in Rule 62-4.050, F.A.C. Please note, effluent testing shall be conducted for each outfall in accordance with the instructions provided in Sections 3.A.12., 13., and 14. of the application form. A minimum of three samples shall be taken within four and one-half years prior to the date of the permit application and must be

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representative of the seasonal variation in the discharge from each outfall. [62-620.335(1) and (2)]

VII. INDUSTRIAL PRETREATMENT PROGRAM REQUIREMENTS

This facility is covered by the Buckman WWTF, FL0026000 pre-treatment program.

VIII. REOPENER CLAUSE

1. The permit shall be revised, or alternatively, revoked and reissued in accordance with the provisions contained in Rules 62-620.325 and 62-620.345 F.A.C., if applicable, or to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act (the Act), as amended, if the effluent standards, limitations, or water quality standards so issued or approved:

Contains different conditions or is otherwise more stringent than any condition in the permit/or;

Controls any pollutant not addressed in the permit.

The permit as revised or reissued under this paragraph shall contain any other requirements then applicable.

2. The permit may be reopened to adjust effluent limitations or monitoring requirements should future Water Quality Based Effluent Limitation determinations, water quality studies, DEP approved changes in water quality standards, or other information show a need for a different limitation or monitoring requirement.

IX. OTHER SPECIFIC CONDITIONS

1. In the event that the treatment facilities or equipment no longer function as intended, are no longer safe in terms of public health and safety, or odor, noise, aerosol drift, or lighting adversely affects neighboring developed areas at the levels prohibited by Rule 62-600.400(2)(a), F.A.C., corrective action (which may include additional maintenance or modifications of the permitted facilities) shall be taken by the permittee. Other corrective action may be required to ensure compliance with rules of the Department. Additionally, the treatment, management, use or land application of residuals shall not cause a violation of the odor prohibition in Rule 62-296.320(2), F.A.C. [62-600.410(8) and 62-640.400(6)]
2. The deliberate introduction of stormwater in any amount into collection/transmission systems designed solely for the introduction (and conveyance) of domestic/industrial wastewater; or the deliberate introduction of stormwater into collection/transmission systems designed for the introduction or conveyance of combinations of storm and domestic/industrial wastewater in amounts which may reduce the efficiency of pollutant removal by the treatment plant is prohibited, except as provided by Rule 62-610.472, F.A.C. [62-604.130(3)]
3. Collection/transmission system overflows shall be reported to the Department in accordance with Permit Condition IX. 20. [62-604.550] [62-620.610(20)]

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4. The operating authority of a collection/transmission system and the permittee of a treatment plant are prohibited from accepting connections of wastewater discharges which have not received necessary pretreatment or which contain materials or pollutants (other than normal domestic wastewater constituents):
 - a. Which may cause fire or explosion hazards; or
 - b. Which may cause excessive corrosion or other deterioration of wastewater facilities due to chemical action or pH levels; or
 - c. Which are solid or viscous and obstruct flow or otherwise interfere with wastewater facility operations or treatment; or
 - d. Which result in the wastewater temperature at the introduction of the treatment plant exceeding 40°C or otherwise inhibiting treatment; or
 - e. Which result in the presence of toxic gases, vapors, or fumes that may cause worker health and safety problems. [62-604.130(5)]
5. The treatment facility, storage ponds for Part II systems, rapid infiltration basins, and/or infiltration trenches shall be enclosed with a fence or otherwise provided with features to discourage the entry of animals and unauthorized persons. [62-600.400(2)(b)]
6. Screenings and grit removed from the wastewater facilities shall be collected in suitable containers and hauled to a Department approved Class I landfill or to a landfill approved by the Department for receipt/disposal of screenings and grit. [62-701.300(1)(a)]
7. Where required by Chapter 471 or Chapter 492, F.S., applicable portions of reports that must be submitted under this permit shall be signed and sealed by a professional engineer or a professional geologist, as appropriate. [62-620.310(4)]
8. The permittee shall provide verbal notice to the Department's Northeast District Office as soon as practical after discovery of a sinkhole or other Karst feature within an area for the management or application of wastewater, wastewater residuals (sludges), or reclaimed water. The permittee shall immediately implement measures appropriate to control the entry of contaminants, and shall detail these measures to the Department's Northeast District Office in a written report within 7 days of the sinkhole discovery. [62-620.320(6)]

X. GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, Florida Statutes. Any permit noncompliance constitutes a violation of Chapter 403, Florida Statutes, and is grounds for enforcement action, permit termination, permit revocation and reissuance, or permit revision. [62-620.610(1)]
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviations from the approved drawings, exhibits, specifications, or conditions of this permit constitute grounds for revocation and enforcement action by the Department. [62-620.610(2)]

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3. As provided in Subsection 403.087(6), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. [62-620.610(3)]
4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [62-620.610(4)]
5. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge, reuse of reclaimed water, or residuals use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. 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. [62-620.610(5)]
6. If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee shall apply for and obtain a new permit. [62-620.610(6)]
7. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. [62-620.610(7)]
8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [62-620.610(8)]
9. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to:
 - a. Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;
 - b. Have access to and copy any records that shall be kept under the conditions of this permit;
 - c. Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and

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- d. Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules. [62-620.610(9)]
10. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data, and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, F.S., or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. [62-620.610(10)]
11. When requested by the Department, the permittee shall within a reasonable time provide any information required by law which is needed to determine whether there is cause for revising, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also provide to the Department upon request copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted or corrections promptly reported to the Department. [62-620.610(11)]
12. Unless specifically stated otherwise in Department rules, the permittee, in accepting this permit, agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard. [62-620.610(12)]
13. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. [62-620.610(13)]
14. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. [62-620.610(14)]
15. The permittee shall give the Department written notice at least 60 days before inactivation or abandonment of a wastewater facility or activity and shall specify what steps will be taken to safeguard public health and safety during and following inactivation or abandonment. [62-620.610(15)]
16. The permittee shall apply for a revision to the Department permit in accordance with Rules 62-620.300, F.A.C., and the Department of Environmental Protection Guide to Permitting Wastewater Facilities or Activities Under Chapter 62-620, F.A.C., at least 90 days before construction of any planned substantial modifications to the permitted facility is to commence or with Rule 62-620.325(2), F.A.C., for minor modifications to the permitted facility. A revised permit shall be obtained before construction begins except as provided in Rule 62-620.300, F.A.C. [62-620.610(16)]
17. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

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The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:

- a. A description of the anticipated noncompliance;
 - b. The period of the anticipated noncompliance, including dates and times; and
 - c. Steps being taken to prevent future occurrence of the noncompliance. [62-620.610(17)]
18. Sampling and monitoring data shall be collected and analyzed in accordance with Rule 62-4.246 and Chapters 62-160, 62-601, and 62-610, F.A.C., and 40 CFR 136, as appropriate.
- a. Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be reported on a Discharge Monitoring Report (DMR), DEP Form 62-620.910(10), or as specified elsewhere in the permit.
 - b. If the permittee monitors any contaminant more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
 - c. Calculations for all limitations which require averaging of measurements shall use an arithmetic mean unless otherwise specified in this permit.
 - d. Except as specifically provided in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix, test method and analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in Rule 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.
 - e. Field activities including on-site tests and sample collection shall follow the applicable standard operating procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.
 - f. Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220, and 62-160.330, FAC. [62-620.610(18)]
19. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule detailed elsewhere in this permit shall be submitted no later than 14 days following each schedule date. [62-620.610(19)]
20. The permittee shall report to the Department's Northeast District Office any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

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- a. The following shall be included as information which must be reported within 24 hours under this condition:
 - (1) Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
 - (2) Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
 - (4) Any unauthorized discharge to surface or ground waters.
 - b. Oral reports as required by this subsection shall be provided as follows:
 - (1) For unauthorized releases or spills of treated or untreated wastewater reported pursuant to subparagraph (a)4. that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Warning Point:
 - (a) Name, address, and telephone number of person reporting;
 - (b) Name, address, and telephone number of permittee or responsible person for the discharge;
 - (c) Date and time of the discharge and status of discharge (ongoing or ceased);
 - (d) Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
 - (e) Estimated amount of the discharge;
 - (f) Location or address of the discharge;
 - (g) Source and cause of the discharge;
 - (h) Whether the discharge was contained on-site, and cleanup actions taken to date;
 - (i) Description of area affected by the discharge, including name of water body affected, if any; and
 - (j) Other persons or agencies contacted.
 - (2) Oral reports, not otherwise required to be provided pursuant to subparagraph b.1 above, shall be provided to the Department's Northeast District Office within 24 hours from the time the permittee becomes aware of the circumstances.
 - c. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department's Northeast District Office shall waive the written report. [62-620.610(20)]
21. The permittee shall report all instances of noncompliance not reported under Permit Conditions X.17., X.18., or X.19. of this permit at the time monitoring reports are submitted. This report shall contain the same information required by Permit Condition X.20. of this permit. [62-620.610(21)]
22. Bypass Provisions.
- a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment works.
 - b. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:

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- (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The permittee submitted notices as required under Permit Condition X.22.b. of this permit.
- c. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in Permit Condition X.20. of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.
- d. The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in Permit Condition X.22.a.1. through 3. of this permit.
- e. A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Permit Condition X.22.a. through c. of this permit. [62-620.610(22)]

23. Upset Provisions.

- a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee.
- (1) An upset does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation.
 - (2) An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of upset provisions of Rule 62-620.610, F.A.C., are met.
- b. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:
- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in Permit Condition X.20. of this permit; and
 - (4) The permittee complied with any remedial measures required under Permit Condition X.5. of this permit.
- c. In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the permittee.

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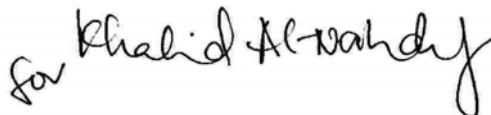
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- d. Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.

[62-620.610(23)]

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

A handwritten signature in black ink, appearing to read "for Khalid Al-Wahdy". The signature is written in a cursive, flowing style.

Melissa M. Long, P.E.
Water Resource Program Administrator

DATE: May 11, 2009