

**BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

CERTIFIED MAIL

IN THE MATTER OF:

Georgia-Pacific Corporation
Palatka Operations
Post Office Box 919
Palatka, Florida 32178-0919

**IN THE OFFICE OF THE
NORTHEAST DISTRICT**

Administrative Order No. 039-NE

Wastewater Permit No. FL0002763

**ORDER ESTABLISHING COMPLIANCE SCHEDULE UNDER
403.088 (2) (f), F.S.**

I. STATUTORY AUTHORITY

The Department of Environmental Protection (Department) issues this order under the authority of section 403.088 of the Florida Statutes. The Secretary of the Department has delegated this authority to the Director of District Management, who issues this order and makes the following findings of fact.

II. FINDINGS OF FACT

1. Georgia-Pacific Corporation is a person under section 403.031 of the Florida Statutes (F.S.).
2. Georgia-Pacific Corporation owns and operates a bleached and unbleached kraft pulp and paper mill in Putnam County, Florida, which discharges treated wastewater to Rice Creek, "waters" of the state as defined in section 403.031 of the Florida Statutes.
3. On June 22, 1994, temporary operation permit No. IT54-220788 was issued for the discharge of the mill effluent to Rice Creek. The temporary operation permit included a compliance schedule which required Georgia-Pacific Corporation to apply for and construct a new discharge pipeline to the St. Johns River. On July 1, 1994, the Department received an application for the construction of the new discharge pipeline to the St. Johns River. On July 10, 1995, the Department received the application for renewal of existing operation permit FL0002763 (Permit) which was combined with the existing state temporary operation permit to become

the National Pollutant Discharge Elimination System (NPDES) permit. The application for the new discharge to the St. Johns River and for the renewal of the NPDES Permit FL0002763 were deemed complete on September 30, 1996. The associated wastewater permit constitutes Department approval for the construction and operation of the pipeline system to the St. Johns River.

4. This Order establishes the overall schedule for the construction of the pump station, force main, and required appurtenances for the final effluent discharge to the St. Johns River, in accordance with Part III. 4. of this Order, and for meeting the new Cluster Rule discharge requirements for bleached kraft mill as required by Part I.B.13. of NPDES Permit FL0002763 (in accordance with the revised Title 40, chapter I of the Code of Federal Regulations (CFR) Part 430, Subpart B, promulgated April 15, 1998). This is consistent with Section 403.151 and 403.088, F.S., which allows the Department to establish a schedule for compliance with a permit or rules of the Department.

5. Sections 403.088(2)(e) and (f) of the Florida Statutes authorize the Department to issue a permit for the discharge of wastes into waters of the state, accompanied by an order establishing a schedule for achieving compliance with all permit conditions, if specified criteria have been met.

6. The Department makes the following findings pursuant to Section 403.088, F.S.:

- a. Georgia-Pacific Corporation has submitted plans and a reasonable schedule for constructing, installing, or placing into operation, an approved pollution abatement facility or alternative waste disposal system;
- b. Georgia-Pacific Corporation needs permission to continue to discharge to waters within the state for a period of time necessary to complete research, planning, construction, installation, and operation of an approved and acceptable pollution abatement facility or alternative waste disposal system;
- c. There is no present, reasonable, alternative means of disposing of the waste other than by discharging it into the waters of the state;
- d. The granting of an operation permit will be in the public interest.

7. This order and associated wastewater Permit FL0002763 constitute the Department's authorization to discharge pollutants to waters of the state under the NPDES program. This order also includes a schedule for project implementation.

III. ORDER

Based on the foregoing findings of fact,

IT IS ORDERED,

1. Interim Discharge

- a. The Permittee shall not be required to comply with Parts I. and V. of NPDES Permit FL0002763 except as required by this Administrative Order. In lieu of Parts I. and V. of NPDES Permit FL0002763, the Permittee shall comply with the following conditions.
- b. The Permittee shall be allowed to discharge to Rice Creek from Outfalls D-001 and D-002, mile points 2.4 and 3.4 respectively, and shall comply with the interim effluent limitations and monitoring requirements outlined in Part III. 2., except as specifically indicated in Part III 4. and 5., of this Administrative Order. Outfall D-001 is located at latitude 29°40'44" N, longitude 81°41'33" W, Outfall D-002 is located at latitude 29°41'14" N, longitude 81°40'58" W, and the proposed Outfall D-003 is at latitude 29°41'13" N, longitude 81°38'24" W. This interim discharge is being authorized to allow the Permittee to install manufacturing process improvements to improve the effluent water quality to the extent that the effluent discharge may remain in Rice Creek, as opposed to construction of a pipeline for a direct discharge to the St. Johns River via Outfall D-003, in accordance with Part III 4. and 5. of this Administrative Order.

2. Surface Water Discharges D-001 and D-002 – Interim

- a. The Permittee shall comply with Parts V.11. and 12. of Permit FL0002763 and the interim limits referenced below beginning on the effective date of this Administrative Order and ending upon completion of the compliance plan referenced in Part III. 5. of this Administrative Order. During this interim period, the Permittee is authorized to discharge from Outfalls D-001 and D-002, treated process wastewater, sanitary wastewater, and storm water. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameters	Effluent Sampling Location	Discharge Limitations			Measure Frequency	Sample Method/Type
		Other	Daily Max.	Daily Average		
Flow, (MGD)	See Part III.2.b.	--	Report	Report	Continuous	Recorder
BOD5-day, mg/l	See Part III.2.b.	--	Report	Report	3 Days/Week	**24-hour composite
BOD5-day (lbs/day) Summer (June 1-Nov 30)	See Part III.2.b.	--	7,000, See Part III.2.k.	3,500, See Part III.2.k.	3 Days/Week	**24-hour composite

Part III.2.a. continued

Parameters	Effluent Sampling Location	Discharge Limitations			Measure Frequency	Sample Method/Type
		Other	Daily Max.	Daily Average		
BOD5-day (lbs/day) Winter (Dec. 1 - May 31)	See Part III.2.b.	--	14,340, See Part III.2.k.	7,170, See Part III.2.k.	3 Days/Week	**24-hour composite
TSS, mg/l	See Part III.2.b.	--	Report	Report	3 Days/Week	**24-hour composite
TSS (lbs/day) - Summer (June 1 - Nov. 30)	See Part III.2.b.	--	10,000, See Part III.2.k.	5,000, See Part III.2.k.	3 Days/Week	**24-hour composite
TSS (lbs/day) - Winter (Dec. 1 - May 31)	See Part III.2.b.	--	17,500, See Part III.2.k.	10,000, See Part III.2.k.	3 Days/Week	**24-hour composite
pH (S.U.)	See Part III.2.b.	6.0 Daily Min	8.5	--	5 Days/Week	Grab
Total Nitrogen, as N (mg/l)	See Part III.2.b.	--	Report	--	1/Month	Grab
TKN, as N (mg/L)	See Part III.2.b.	--	Report	--	1/Month	Grab
Total Ammonia, as N (mg/l)	See Part III.2.b.	--	Report	--	1/Month	Grab
Un-ionized Ammonia (mg/L) as NH ₃	See Part III.2.b.	--	Report	--	1/Quarter	Calculated, See Pt III.2.u.
Color, PCU	See Part III.2.b.	--	Report	--	1/Month	Grab
Fecal Coliform, #/100 ml	See Part III.2.b.	200	800	--	1/Month	Grab
Total Coliform, #/100 ml	See Part III.2.b. and t.	1000	2400	--	1/Month	Grab
Settleable Solids, (ml/l/hr)	See Part III.2.b.	--	0.1	--	1/Month	Grab
*Iron, total recoverable, mg/L	See Part III.2.b.	--	Report	--	1/Quarter	Grab
*Zinc, total recoverable, ug/l	See Part III.2.b.	--	See Part III.2.f.	--	1/Quarter	Grab
*Cadmium, total recoverable (ug/l)	See Part III.2.b.	--	Report	--	1/Quarter	Grab
*Lead, total recoverable (ug/l)	See Part III.2.b.	--	Report	--	1/Quarter	Grab
Temperature, Degrees F.	See Part III.2.b.	--	Report	--	1/Quarter	Grab

Part III.2.a. continued

Parameters	Effluent Sampling Location	Discharge Limitations			Measure Frequency	Sample Method/Type
		Other	Daily Max.	Daily Average		
Total Hardness, mg/l as CaCO ₃	See Part III.2.b.	--	Report	--	1/Quarter	Grab
Specific Conductance, umhos/cm	See Part III.2.b.	--	Report	--	1/Month	Grab
Turbidity, NTU	See Part III.2.b.	--	Report	--	1/Month	Grab
Dissolved Oxygen, mg/l	See Part III.2.b.,d.,e.	Report	--	--	5 Days/Week	Grab or insitu
Dissolved Oxygen, mg/l Summer-Jun. 1 - Nov. 30	See Part III.2.h.	4.0 daily min., See Pt III.2.g.	--	--	5 Days/Week	Grab or insitu
Dissolved Oxygen, mg/l Winter-Dec. 1 - May 31	See Part III.2.h.	5.0 daily min., See Part III.2.g.	--	--	5 Days/Week	Grab or insitu
Oxygen Injected, lb/day Summer-Jun. 1 - Nov. 30	See Part III.2.d.	4,150, See Part III.2.g.	--	--	5 Days/Week	Log
Oxygen Injected, lb/day Winter-Dec. 1 - May 31	See Part III.2.d.	1,950, See Part III.2.g.	--	--	5 Days/Week	Log
Oxygen Injected, lb/day Summer-Jun. 1 - Nov. 30	See Part III.2.e.	5,750, See Part III.2.g.	--	--	5 Days/Week	Log
Oxygen Injected, lb/day Winter-Dec. 1 - May 31	See Part III.2.e.	2,800, See Part III.2.g.	--	--	5 Days/Week	Log
2,3,7,8-TCDD, pg/l	See Part III.2.b.	--	--	0.014, See Part III.2.n.	Quarterly, See Part III.2.n.	Composite See Part III.2.n.
COD, mg/l	See Part III.2.b.	--	Report	--	1/Month	**24-hour composite
Adsorbable Organic Halides (AOX), (lbs/day) (EPA Method 1650)	See Part III.2.b.	1077 monthly average	1644	--	Daily	**24 hour composite
2,3,7,8 TCDD, pg/l (EPA Method 1613)	See Part III.2.c.	--	<10.0	--	Monthly	**24 hour composite
2,3,7,8 TCDF, pg/l (EPA Method 1613)	See Part III.2.c.	--	<31.9	--	Monthly	**24 hour composite

Part III.2.a. continued

Parameters	Effluent Sampling Location	Discharge Limitations			Measure Frequency	Sample Method/Type
		Other	Daily Max.	Daily Average		
Chloroform, (lbs/day)	See Part III.2.c.	--	11.96	7.16	Weekly	**24 hour composite
Trichlorosyringol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
3,4,5 - trichlorocatechol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<5.0	--	Monthly	**24 hour composite
3,4,6 - trichlorocatechol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<5.0	--	Monthly	**24 hour composite
3,4,5 - trichloroguaiacol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
3,4,6 - trichloroguaiacol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
4,5,6 trichloroguaiacol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
2,4,5 - trichlorophenol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
2,4,6 - trichlorophenol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite
Tetrachlorocatechol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<5.0	--	Monthly	**24 hour composite
Tetrachloroguaiacol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<5.0	--	Monthly	**24 hour composite
2,3,4,6 - tetrachlorophenol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<2.5	--	Monthly	**24 hour composite

Part III.2.a. continued

Parameters	Effluent Sampling Location	Discharge Limitations			Measure Frequency	Sample Method/Type
		Other	Daily Max.	Daily Average		
Pentachlorophenol, ug/l (EPA Method 1653)	See Part III.2.c.	--	<5.0	--	Monthly	**24 hour composite
Acute Whole Effluent Toxicity, (%)	Effluent See Part III.2.b.	LC50 >100, see Part III.6.a			See Part III.6.a	**24-hour composite
Chronic Whole Effluent Toxicity, (%)	Effluent See Part III.2.b.	Report, see Part III.6.b.			See Part III.6.b	**24-hour composite

* Applied based on the total recoverable fraction pursuant to Rule 62-302.500(2)(d), FAC. The Permittee may request department approval for an alternative fraction.

** The 24-hour composite sample shall consist of 6 representative separate grab samples taken every 4 hours or continuous sampler.

- b. Monitoring point A shall be located after final treatment but prior to actual discharge or mixing with the receiving waters. Monitoring of all parameters except effluent dissolved oxygen and internal bleach plant monitoring required by the Cluster Rule may be at a point above the effluent riffleway. Monitoring and reporting for effluent dissolved oxygen shall be monitored below the effluent riffleway. Flow shall be reported as the sum of flows from Outfalls D-001 and D-002.
- c. The Permittee shall submit a plan identifying internal monitoring locations for the internal bleach plant monitoring required by the Cluster Rule. Upon Department review and approval, these internal monitoring locations will become an enforceable part of this permit.
- d. Outfall D-001 (Monitoring Point B) - Shall be located near Little Rice Creek mile point 3.4 (upstream from mouth) and shall measure total pounds of oxygen injected per day and flow for one of two oxygenated effluent sidestreams.
- e. Outfall D-002 (Monitoring Point C) - Shall be located near Rice Creek mile point 2.4 (upstream from mouth) and shall measure total pounds of oxygen injected per day and flow for one of two oxygenated effluent sidestreams.
- f. A sample for effluent hardness as mg/l CaCO₃ must be taken at the same time of sampling for zinc from the effluent discharge. The hardness value must be used to determine compliance with the standard in rule 62-302.530(71) where the total recoverable zinc concentration in the effluent shall not be $> e^{(0.8473[\ln H]+0.7614)}$, where $[\ln H]$ is the natural logarithm of total hardness expressed as mg/l of CaCO₃. The hardness shall be set at 25 mg/l if actual hardness is <25 mg/l and set at 400 mg/l if actual hardness is >400 mg/l.
- g. The oxygen injection rates shall be adjusted at the specified monitoring locations (B&C) to maintain applicable dissolved oxygen standards within Rice Creek. The dissolved oxygen concentrations apply at location R3 (Rice Creek mile point 1.4) when the high tide condition of Etonia and Rice Creek is less than 1.5 feet. When the high tide condition of Etonia and Rice Creek is greater than or equal to 1.5 feet, the minimum amount of liquid oxygen injected (lbs/day) shall be met, unless instream D.O. concentration (mg/l) exceeds the standards listed in Part III.2.a. During periods of high stage levels (greater than or equal to 1.5 feet) in Rice and Etonia Creeks, the Permittee will only be held responsible for violations of the D.O. standards (listed in Part III.2.a) attributable to the mill effluent. If at anytime the facility is adding more oxygen than is listed in Part III.2.a. the dissolved oxygen standards do not apply at monitoring location R3. It is the responsibility of the Permittee to

monitor and maintain records of the stage heights within the creeks. The Permittee shall obtain Department approval for an alternate method to add oxygen to Rice Creek which does not include the use of effluent.

- h.** Instream monitoring point shall be located at sample point R3 (Rice Creek mile point 1.4, upstream from mouth).
- i.** There shall be no discharge of floating solids or visible foam in other than trace amounts.
- j.** The discharge shall not cause a visible sheen on the receiving water.
- k.** For BOD₅ and TSS, the total loadings per day (lb/day) shall be determined by measuring the 24 hour composited effluent concentrations (mg/l) at the monitoring point in Part III.2.b. and multiplying these values by the sum of the effluent flows (MGD) from Outfalls D-001 and D-002 and by the conversion factor.
- l.** The effluent sidestreams discharged through Outfalls D-001 and D-002 shall be withdrawn from the final wastewater treatment pond at a location adjacent to where the effluent is routed through the monitoring point referenced in Part III.2.b. of this order.
- m.** A mixing zone for total dissolved gases (TDG) is hereby established for the side stream discharges into Rice Creek. The Permittee's discharges shall not cause an exceedance of the Chapter 62-302.530(67) F.A.C., Class III fresh water standard of 110% of the saturation value for gases at the existing atmosphere and hydrostatic pressures outside the boundaries of the mixing zones described below.

Milepoint 2.4

The mixing zone shall extend linearly upstream and downstream from the discharge point such that the cumulative upstream and downstream distances from the discharge point does not exceed 725 meters, in the tidal influenced areas of Rice Creek.

Milepoint 3.4

The mixing zone shall extend linearly upstream and downstream from the discharge point such that the cumulative upstream and downstream distances from the discharge point does not exceed 225 meters in the tidal influenced areas of Rice Creek.

- n.** After three consecutive sampling events indicating dioxin compliance the sampling analysis frequency shall be reduced to once per year. If the concentration of 2,3,7,8-TCDD is determined to be less than the minimum detection level of 10 pg/l for method 1613, then compliance with the 2,3,7,8-TCDD limitation in this permit is demonstrated. The samples shall be a 72-hour composite sample consisting of three 24-hour composite samples. The effluent limitation for 2,3,7,8-TCDD is for that isomer only.

o. Fish Tissue - Interim

The Permittee shall submit, within 30 days of the effective date of this Administrative Order, a revised Plan of Study (POS) to annually assess the levels of all chloro-dibenzo dioxin and furans in ambient fish and shellfish tissue in Rice Creek.

p. Dissolved Oxygen Maintenance Plan (Interim)

The Permittee is allowed to perform maintenance of the oxygen injection sidestream stations B and C, as defined in Parts III.2.d. and e. of this order, under the following conditions:

1. When maintenance occurs at Station C, oxygen shall be injected at Station B at such a rate that applicable dissolved oxygen levels are maintained in accordance with Part III.2.a.

2. When maintenance occurs at Station B, oxygen shall be injected at Station C such that applicable dissolved oxygen levels are maintained in accordance with Part III.2.a.
 3. Maintenance which does not comply with items 1. and 2 above is allowed at Stations B and C due to upsets, provided it shall not exceed a total of 36 hours in any calendar month and shall not exceed a total of 12 hours in any 24 hours period. For purposes of calculating the maximum time frames set forth in this Specific condition, concurrent discharges from Stations B and C shall be considered as one Discharge.
 4. Exceedances of the above time restrictions shall not result in violations of this Order if the Permittee can demonstrate to the satisfaction of the Department through stream monitoring during the time frame of the exceedance that applicable water quality standards were maintained.
- q. If planned maintenance is scheduled for Station B and C which will exceed the time limits of Part III.3.p. above, the Permittee shall notify the Department in writing 7 days in advance of the maintenance. Such maintenance shall be performed only under favorable stream conditions which shall be documented in the written notification (i.e., winter months, high stream flows, etc.). The Permittee shall perform a stream survey in accordance with Part I.D.4 of the permit each day during the maintenance period until the system is operational to verify compliance with applicable dissolved oxygen levels within Rice Creek. The Permittee may temporarily discontinue the discharge into the creek during the maintenance period in lieu of performing the daily stream surveys.
 - r. The effluent sidestream discharged at Monitoring Locations B and C shall be withdrawn from the final wastewater treatment pond at a location adjacent to the existing parshall flume.
 - s. The Permittee shall conduct quarterly instream surveys at R7, E2, and Buffalo Bluff in accordance with Part I.D.4. of Permit F10002763.
 - t. After three consecutive years of demonstrating compliance with the Total Coliform standard pursuant to 62-302.530(7), FAC, the Permittee may discontinue monitoring for Total Coliform. In the event that after three years of monitoring compliance with the Total Coliform is not achieved, the Permittee shall submit a Corrective Action Plan to the Department for review and approval in accordance with Part III. 5.1. of this order.
 - u. Shall be calculated based on the effluent pH, temperature, and total ammonia as N at the time of sampling using attachment 2.

3. Manufacturing Process Improvements

- a. By no later than 84 months from effective date of this Administrative Order, the Permittee shall construct and place into operation the manufacturing process improvements in order to improve the effluent water quality to the extent that the effluent discharge may remain in Rice Creek, as opposed to construction of a pipeline for a direct discharge to the St. Johns River. The manufacturing process improvements consist of: 1) the construction of a new bleach line; 2) enhanced (i.e. two stage) oxygen delignification system (or like system producing similar or better environmental benefits) 3) new brownstock washing systems to replace four existing brownstock wash lines; 4) green liquor dregs filter; 5) minimize all pulping liquor leaks and spills; 6) handling the chlorine dioxide generator waste (i.e., salt cake), including efforts to find a viable, long term sustainable market for such material and evaluation of alternative technologies for treating such material; and 7) required appurtenances. These improvements are also consistent with the Cluster Rule requirements (Title 40, chapter I of the Code of Federal Regulations (CFR) Part 430, Subpart B, promulgated April 15, 1998). The discharge points at Outfalls D-001 and D-002 may be used for supplemental oxygen addition in Rice Creek and for

seasonal supplemental oxygen addition in the event of a direct discharge to the St. Johns River through Outfall D-003.

- b. The Permittee shall comply with Part III.5.i. of this order in accordance with the completion dates for new technologies in Part III. 3.a. as follows:

1)	New bleach line	4/15/2001
2)	Green liquor dregs filter	8/15/2003
3)	New Brownstock washing system	4/15/2006
4)	Oxygen Delignification	4/15/2008

4. Surface Water Discharge – Final

- a. Construction and operation of a pipeline for a direct discharge into the St. Johns River is authorized by the Department, unless the Permittee demonstrates an ability to meet applicable water quality standards in Rice Creek in accordance with Part III 5. of this Administrative Order. In the event the pipeline is deemed necessary, and in accordance with NPDES Permit FL0002763, the proposed modifications for a discharge to the St. Johns River will consist of the construction of a pump station, 4 mile long 48 inch diameter ductile iron pipe force main, high purity oxygen will be added to the pump station discharge from a liquid oxygen storage tank to provide for the required dissolved oxygen at the discharge and required appurtenances for the conveyance of the effluent from the treatment lagoons to the river through Outfall D-003 via a 1043 foot long diffuser. Discharges to Outfalls D-001 and D-002 shall cease, except as needed for supplemental oxygen addition or for emergencies in accordance with the upset and bypass provisions of Rule 62-620.610, FAC.
- b. Pursuant to the completion of Part III 5. of this Administrative Order, the pipeline construction shall be completed and placed into operation no later than 27 months following submittal of the final report referenced in Part III.5.c. of this order therein.
- c. Compliance with the final effluent limitations as described in Part I.B.1 of NPDES Permit FL0002763 shall be achieved upon placing the pipeline system into operation with the exception of Part I.B.13. of NPDES Permit FL0002763 (Cluster Rule effluent limitations and monitoring requirements) which must be complied with by April 15, 2001.
- d. The mixing zones described in Part I.B.8 of NPDES Permit FL0002763 were based on dilution rates extracted from modeling presented in the Level II WQBEL. Within 3 months of the effective date of this order, Permittee must provide verification of the dilution rates or recommend a modification. Upon concurrence by the Department, the mixing zone sizes may be revised in accordance with any modification to the dilution factors.

5. Compliance Schedules

a. Optimization of Manufacturing Process Improvements

Within 12 months of completion of construction of the manufacturing process improvements, the Permittee shall fully optimize and submit an Optimization Report on the operation of the new technologies incorporated in the manufacturing process improvements described in Part III. 3. of this Administrative Order. The report will describe the permittee's efforts to optimize the proposed modifications. The report will document the permittee's efforts to: 1) improve kappa numbers of the pulp entering the bleach plant to levels below those called for by the Voluntary Advanced Technology program (20 for softwood and 13 for hardwood); 2) optimize washer efficiencies and minimize soda loss; 3) minimize spills throughout the entire mill; and 4) to achieve other water

quality standards. In addition, the permittee shall also include in this report its efforts to handle the chlorine dioxide generator waste (i.e., salt cake), including its efforts to find a viable, long term sustainable market for such material and its evaluations of alternative technologies for treating such material.

b. Rice Creek Water Quality Monitoring POS

Within 6 months prior to certification of completion of construction of the manufacturing process improvements described in Part III. 3. of this Order, the Permittee shall submit a plan of study (POS), including a proposed implementation schedule, designed to demonstrate whether the Permittee's effluent can comply with the table below for continued discharge in Rice Creek. The POS shall include monitoring of the effluent and Rice Creek for a minimum of one (1) year to commence no later than upon certification of completion of optimization of the manufacturing process improvements. If additional parameters of concern come to the attention of the Permittee or the Department for good cause, in accordance with 62-620.325 (1), FAC, the table shall be modified to include such parameters.

Parameter	Water Quality Standards (Chapter 62-302, FAC)	Mixing zone length (meters) ¹	Effluent limit ⁵	Sampling Location	Sampling Frequency	EPA Test Method
Conductivity (umhos/cm)	1275	800	1650	Final Effluent	TBD by POS	120.1
Color (PCU) ²	The compensation depth shall not be reduced by more than 10% as compared to natural background.	800	TBD ¹⁰	Background, Final Effluent	TBD by POS	110.2
Turbidity (NTU)	< or = 29 above natural background	800	48	Background, Final Effluent	TBD by POS	180.1
TKN, TN (mg/l)	See footnote 7.	800	TBD by the TMDL process	Final Effluent	TBD by POS	351.2, 353.2
Unionized Ammonia (ppm) Winter/Summer ⁴	0.02	800	0.028	Final Effluent	TBD by POS	350.1, 170.1, 150.1
Iron, total recoverable (mg/l) ³	< or = 1.0	None	1.0	Background, Final Effluent	TBD by POS	200.7
Silver, total recoverable (ug/l) ³	< or = 0.07	None	0.07	Background, Final Effluent	TBD by POS	272.2
Cadmium, total recoverable (ug/l) ³	$\exp(0.7852 \ln H - 3.49)$	800	1.6	Background, Final Effluent	TBD by POS	213.2

Lead, total recoverable (ug/l) ³	$\exp(1.273 \ln H - 4.705)$	800	4.5	Background, Final Effluent	TBD by POS	239.2
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Part III.5.b

Total Coliform (#/100ml) ⁹	< or = 1000	None	2400	Final Effluent	TBD by POS	9222B (membrane filter)
Chronic Toxicity	See footnote 6.	800	NOEC > or = 72% ⁸	TBD by POS	TBD by POS	EPA/600/4-91/002
Biological Integrity % reduction of Shannon-Weaver	< or = 25 as compared to established background levels	800	< or = 25	TBD by POS	TBD by POS	DEP IZ-29, IZ-3, IZ-6, IZ-7, IZ-8, IZ-13
Stream Condition Index	NA	800	MO	TBD by POS	TBD by POS	DEP IZ-30, IZ-2, IZ-6, IZ-7, IZ-8, IZ-13
Florida Index	NA	800	MO	TBD by POS	TBD by POS	DEP IZ-30, IZ-2, IZ-6, IZ-7, IZ-8, IZ-13

Footnotes:

¹ For the purposes of this interim evaluation period the Permittee is to evaluate the effluent parameters outlined in the table above assuming an 800 meter mixing zone. If Rice Creek is listed as impaired for the parameters above, or any other parameters, the Permittee shall not cause or contribute to applicable water quality violations at the point of discharge.

² Color is to be used as a surrogate parameter for monitoring compliance with the transparency standard pursuant to 62-302.530(68), FAC.

³ Applied based on the total recoverable fraction pursuant to Rule 62-302.500(2)(d) FAC. The Permittee may request department approval for an alternative fraction.

⁴ Calculated based on temperature, total ammonia, and pH.

⁵ Effluent Limit to achieve compliance at Boundary of Mixing Zone at Mile Point 2.4 or closer to the mouth of Rice Creek.

⁶ There shall not be the presence of substances or characteristics, which are chronically toxic in accordance with FAC Rule 62-302.530(62) or produce adverse physiological or behavioral response in humans, plants, or animals.

⁷ The nutrient concentrations of the water body shall not be altered so as to cause an imbalance in natural populations of aquatic flora or fauna.

⁸ Theoretical NOEC based on dilution characteristics available. The POS shall be designed to determine the actual NOEC.

⁹ Total Coliform shall be eliminated from the table provided the Permittee demonstrates compliance with 62-302.530(7), FAC, in accordance with Part III. 2.t. of this order.

¹⁰ Upon the effective date of this Administrative Order and in conjunction with the instream quarterly surveys required by Part I.D.4. of Permit FL0002763, the Permittee shall, for four consecutive surveys, also measure color, secchi depth, and light extinction (with a submersible photometer) at stations R1, R2, R3, R5, J1 and one station within the grassbed located in the St. Johns River along the shoreline that is northwest of the confluence of Rice Creek and the St. Johns River. Within 30 days of completing the fourth survey the Permittee shall submit a summary report to the Department for review and approval. The summary report shall incorporate the data and findings of the studies “Light Characteristics in the Lower St. Johns River” and “Light and Nutrient Requirements for Submerged Aquatic Vegetation” as contracted by the St. Johns River Water Management District that may be available by that date. The summary report shall propose an effluent limit and provide information supporting boundary conditions for a mixing zone evaluation. The summary report shall also verify the relationship between color and light transparency and address the appropriate flow regime for evaluating color and transparency boundary conditions and effluent limits. The Department will review the summary report within 45 days of its receipt and will either approve the report or notify the Permittee of deficiencies that must be corrected. The Permittee shall make such corrections and re-submit the summary report within 45 days of the Department’s notification or request an administrative hearing as provided in Part III. 7 of this order. The report and effluent limit shall be incorporated into this order upon approval.

Table Codes:

TBD: To be determined NA: Not applicable
NA: Not applicable H: Hardness
MO: Monitoring only
POS: Plan of Study as defined by Section III 5.b. of Administrative Order No. 039-NE.

c. Rice Creek Water Quality Monitoring Final Report

Within 3 months of conclusion of the POS and no later than 27 months after completion of construction of the manufacturing process improvements, the Permittee shall submit a final report to the Department. The final report shall contain monitoring data and an analysis of the viability of achieving compliance with the table above in Part III. 5.b. of this order.

d. Re-opener to remain in Rice Creek

In the event that the results of the final report indicate that the Permittee can comply with water quality standards in Rice Creek, NPDES Permit FL0002763 shall be automatically re-opened to revise the final Outfall location from Outfall D-003 to D-002. The permit revision process shall determine a schedule for construction of a pipeline, final effluent limits, and applicable moderating provisions, as necessary and in accordance with Chapter 62-650 FAC.

e. Pipeline Construction

In the event that the results of the final report indicate that the Permittee cannot meet water quality standards in Rice Creek, the Permittee is authorized to construct a pipeline to discharge to Outfall D-003 in accordance with Part III. 4. of this Administrative Order and Part V. of NPDES Permit FL0002763.

f. The Permittee shall not be required to install or implement any additional specific technologies except for those technologies adopted by EPA or the Department through the appropriate

rulemaking process. This condition does not relieve the Permittee from complying with applicable water quality standards.

g. Progress Reports

The Permittee shall, within 30 days of the effective date of this Administrative Order, and at semi-annual intervals thereafter, submit to DEP concise progress reports on the Permittee's actions and efforts to comply with the requirements of the compliance schedules contained in Part V. of NPDES Permit FL0002763 and Part III. 5. of this Administrative Order. In the case of specific actions being required, a written notice of compliance or non-compliance within 14 calendar days following a date identified in the above schedule of compliance, unless otherwise specified in this order, is required. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement. Copies of the progress reports to the Water Facilities Administrator, Florida Department of Environmental Protection, 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida, 32256-7577, and the Administrator, Industrial Wastewater Section, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida, 32399-2400.

h. Pipeline Engineering Evaluation Report for Outfall D-003

Within 6 months from completing installation of Manufacturing Process Improvements in Part III. 3. of this Administrative Order, based on projected water conservation measures, the Permittee shall provide an engineering report and implementation schedule to evaluate the feasibility of using a smaller diameter pipeline and alternative materials of construction for the effluent discharge to the St. Johns River via Outfall D-003.

i. Manufacturing Process Improvements - Notification of Completion of Construction

Within 30 days from completion of construction of each new technology referenced in Part III. 3. a. and b. of this Administrative Order, the Permittee shall submit DEP Form 62-620.910(12), Notification of Completion of Construction for Wastewater Facilities.

j. Manufacturing Process Improvements - Availability of Record Drawings - Within 6 months from completion of construction of all of the components in Part III.3. of this Administrative Order, the notification of the availability of record drawings shall be filed with the Department Notification shall be made on DEP Form 62-620.910(13).

k. Alternate method to add oxygen to Rice Creek

The Permittee shall, within 12 months prior to discharge from Outfall D-003, submit a proposal to the Department for an alternate method to add oxygen to Rice Creek, which does not include the use of effluent. The Department will review the proposal within 60 days of its receipt and will either approve the plan or notify the Permittee of deficiencies that must be corrected. The Permittee shall make such corrections and re-submit the plan within 60 days of the Department's notification or request an administrative hearing as provided in Part III. 7. of this order. The plan and implementation schedule shall become an enforceable condition of this order upon approval. If applicable, and prior to effluent discharge from outfall D-003, the permit will be re-opened and modified pursuant to Part VI.F to include effluent limitations and monitoring requirements based on the mechanism utilized for oxygen injection.

l. Total Coliform Corrective Action Plan (CAP)

The Total Coliform CAP, if required pursuant to Part III. 2.t. of this order, shall be submitted within 3 months of conclusion of the three consecutive years of effluent monitoring specified in Part III.2.a. of this order. The Department will review the CAP within 60 days of its receipt and will either approve the plan or notify the Permittee of deficiencies that must be corrected. The Permittee shall make such corrections and re-submit the CAP within 60 days of the Department's

notification or request an administrative hearing as provided in Part III. 7. of this order. The plan and implementation schedule shall become an enforceable condition of this order upon approval.

m. Mixing Zone Dilution Verification

The mixing zones described in Part I.B.8 of NPDES Permit FL0002763 were based on dilution rates extracted from modeling presented in the Level II WQBEL. Within 3 months of the effective date of this order, Permittee must provide verification of the dilution rates or recommend a modification. Upon concurrence by the Department, the mixing zone sizes may be revised in accordance with any modification to the dilution factors.

6. Other Limitations and Monitoring and Reporting Requirements

a. Acute Whole Effluent Toxicity Monitoring Program

In accordance with Part III.2.a. of this order, the Permittee shall initiate the series of tests described below to evaluate acute whole effluent toxicity of the discharge from Outfall D001. Tests shall be conducted quarterly beginning within 30 days of the effective date of this order. All test species, procedures and quality assurance criteria used shall be in accordance with Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, EPA/600/4-90/027F (4th edition), or the most current edition. The control and dilution water will be moderately hard water as described in EPA/600/4-91/002, Table 3. A standard reference toxicant quality assurance acute test shall be conducted concurrently with each species used in the toxicity tests and the results submitted with the discharge monitoring report (DMR). Alternatively, if monthly QA/QC reference toxicant tests are conducted, these results must be submitted with the DMR. Any deviation from the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use.

1. Routine Test Requirements

a. The Permittee shall conduct 96 hour acute static renewal toxicity tests using the *Ceriodaphnia dubia* (water flea) and the *Cyprinella Leedsii* (bannerfin shiner). All tests shall be 24-hour composite samples and shall consist of 6 representative separate grab samples taken every 4 hours or the 24 hour accumulation of a continuous sampler. The toxicity tests specified above shall be conducted using a control (0% effluent) and a test concentration of 100% final effluent. These tests are referred to as "routine tests".

b. If control mortality exceeds 10% for either species in any test, the test(s) for that species (including the control) shall be repeated. A test will be considered valid only if control mortality does not exceed 10% for either species. If, in any separate test, 100% mortality occurs prior to the end of the test, and control mortality is less than 10% at that time, that test (including the control) shall be terminated with the conclusion that the sample demonstrates a violation of the acute toxicity limit.

c. Results from "routine" tests shall be reported according to EPA/600/4-90/027F, Section 12, Report Preparation (or the most current edition), and shall be submitted within thirty (30) days to:

Florida Department of Environmental Protection
Northeast District
7825 Baymeadows Way Suite B-200
Jacksonville, Florida 32256

The results shall be entered on the DMR in the following manner: if less than 50% survival of test species occurs “<100%” shall be entered on the DMR for that species. If 50% or greater survival occurs in the composite sample tests, “>100%” shall be entered.

2. Additional Testing Requirements

a. If unacceptable acute toxicity (greater than 20% mortality in any grab sample of 100% effluent) is determined in a routine test, the Permittee shall conduct a minimum of three (3) valid additional 96 hour acute static renewal definitive tests on the specie(s) indicating toxicity. The first test shall begin within 7 days of the failed routine test and be conducted weekly thereafter until three valid additional tests are complete. The additional tests sample collection requirements and test acceptability criteria specified in paragraphs ‘1.a.’ and ‘1.b.’ above must be met for the tests to be considered valid. All additional definitive tests shall be conducted with a control (0% effluent) and effluent concentrations of 6.25%, 12.5%, 25%, 50%, and 100%. The dilution series may be modified in the second and third tests to more accurately identify the toxicity, such that at least two dilution’s above and two dilution’s below the target toxicity and a control (0% effluent) are run. The additional tests will be used to determine if the toxicity found in the routine test is still present.

b. Results for each additional test will include the determination of LC50 values with 95% confidence limits. Results from the additional tests, required due to unacceptable acute toxicity in the "routine" tests, shall be submitted in a single report prepared according to EPA/600/4-90/027F, Section 12, Report Preparation (or the most current edition) and submitted within thirty (30) days of completion of the three valid additional tests. If the additional tests demonstrate continued unacceptable toxicity, the Permittee will meet with the Department within 30 days of the report submittal to identify corrective actions necessary to remedy the unacceptable toxicity.

c. For all tests conducted, a final effluent sample must be used.

b. Interim Chronic Whole Effluent Toxicity Monitoring Program

In accordance with Part III.2.a of this order, the Permittee shall initiate the series of tests described below to evaluate chronic whole effluent toxicity of the discharge from Outfall D001. Tests shall be conducted quarterly beginning within 30 days of the effective date of this order. For the purposes of this section, “Interim”, shall cover that period of time beginning upon the effective date of the permit and administrative order and ending upon establishing a final limit for chronic toxicity pursuant to Part III.5.d of this Order. 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, EPA/600/4-91/002, or the most current edition. The control and dilution water will be moderately hard water as described in EPA/600/4-91/002, Table 3. A standard reference toxicant quality assurance chronic toxicity test shall be conducted concurrently with each species used in the toxicity tests and the results submitted with the bioassay report or if monthly QA/QC reference toxicant tests are conducted, these results must be submitted. Any deviation from the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use.

1. The Permittee shall conduct a daphnid, Ceriodaphnia dubia, Survival and Reproduction test and a fathead minnow, Pimephales promelas, Larval Survival and Growth Test. These tests shall be conducted using a control (0% effluent) and one test concentration of 100%. All test results shall be statistically analyzed according to the Appendix in EPA/600/4-91-002, or the most current edition.

2. For each set of tests conducted, a 24-hour composite sample of final effluent shall be collected and used per the sampling schedule discussed in EPA/600/4-91/002, Section 8 (or the most current edition). All test solutions shall be renewed daily. Two additional composite samples collected on day two and day four of the test, used as renewal solutions, shall be collected according to the protocol.
3. If control mortality exceeds 20% for either species in any test, the test(s) for that species (including the control) shall be repeated. A test will be considered valid only if control mortality does not exceed 20% for either species. If, in any separate test, 100% mortality occurs prior to the end of the test, and control mortality is less than 20% at that time, that test (including the control) shall be terminated with the conclusion that the sample demonstrates un-acceptable acute toxicity. Additionally, all tests must meet the acceptability criteria for each species as defined in EPA/600/4-91/002 Section 13.11 and Section 11.11, respectively.
4. The toxicity tests specified above shall be conducted once every three months during the interim period. These tests are referred to as "routine" tests. Upon the completion of four valid tests during the final period which demonstrate that no chronic toxicity has occurred, the Permittee may petition the Department for a reduction in monitoring frequency.
5. Results from "routine" tests shall be reported according to EPA/600/4-91/002, Section 10, Report Preparation (or the most current edition), and shall be submitted to:

FL Department of Environmental Protection
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256
Attn: Industrial Waste Section

Additionally, all results shall be recorded and submitted as instructed on the Discharge Monitoring Report (DMR).

- c. The Permittee shall maintain and operate its facilities in compliance with the conditions of Permit FL0002763, unless otherwise specified herein.
- d. The Permittee shall continue the implementation of the ongoing study (Masculinization and others) to demonstrate benefits to aquatic health from manufacturing process improvements and provide periodic updates in accordance with Part III.5.g. of this Administrative Order.
- e. The Permittee, in operating the Wetdeck, shall on a weekly basis keep a written record of the water usage, including make up water source and volume, and any water discharged to the wastewater treatment system resulting from extreme storm events. A quarterly summary report shall be submitted describing the water flows through the Wetdeck system.
- f. The Permittee shall allow all authorized representatives of the Department access to the property at reasonable times for the purpose of determining compliance with this order and rules of the Department.
- g. This order may be modified as set forth in Chapter 62-620 of the Florida Administrative Code.
- h. This order does not operate as a permit under section 403.088 of the Florida Statutes.

- i. Failure to comply with the requirements of this order shall constitute a violation of this order and DEP Permit FL0002763, and may subject the Permittee to penalties as provided in section 403.161 of the Florida Statutes.

7. Administrative Proceeding

With regard to any determination by the Department of any POS, report, CAP, and in reopening the permit, the Permittee, may file a petition for formal or informal administrative proceeding, pursuant to sections 120.569 and 120.57, Florida Statutes, and chapter 62-103, Florida Administrative Code, if it disagrees with or otherwise disputes the Department's determination. The petition must conform with the requirement of rule 62-103.155, Florida Administrative Code, and must be received by the Department's Office of General Counsel, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, within twenty-one (21) days after receipt of written notice from the Department of any determination that Georgia-Pacific wishes to challenge. Failure to file a petition within this time period shall constitute a waiver by Georgia-Pacific of its right to request an administrative proceeding under section 120.57, Florida Statutes. The Department's determination, upon expiration of the 21-day time period if no petition is filed, or the Department's final order as a result of the filing of the petition, shall be incorporated by reference into this permit and made a part thereof. Notwithstanding other terms of the permit, Georgia-Pacific shall have the right to judicial review of the Department's final order entered after any administrative hearing held pursuant to this paragraph, as provided by section 120.68, Florida Statutes.

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Ernest E. Frey, P.E.
Director of District Management
7825 Baymeadows Way, Suite 200B,
Jacksonville, Florida, 32256-7577

Administrative Order No. 039-NE
Georgia-Pacific Corporation

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