



North Carolina Department of Environment and Natural Resources  
Division of Waste Management

Beverly Eaves Perdue  
Governor

Dexter R. Matthews  
Director

Dee Freeman  
Secretary

STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF WASTE MANAGEMENT  
SOLID WASTE SECTION

**INDUSTRIAL LANDFILL  
PERMIT NO. 24-02**

INTERNATIONAL PAPER  
is hereby issued a

**PERMIT TO CONSTRUCT  
INDUSTRIAL LANDFILL CELL 2**

**PERMIT TO OPERATE  
INDUSTRIAL LANDFILL CELL 1 VERTICAL EXTENSION**

located off John L. Riegel Road, Columbus County, North Carolina, in accordance with Article 9, Chapter 130A, of the General Statutes of North Carolina and all rules promulgated thereunder and subject to the conditions set forth in this permit. The facility is located and described by the legal description of the site or the property map contained within the approved application.

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Edward F. Mussler, III, P.E.,  
Permitting Branch Supervisor  
Permitting Branch

## ATTACHMENT 1

### PART I: Permitting History

Issuance	Date
Permit to Construct Cell 1	December 30, 2002
Permit to Operate Cell 1	February 17, 2005
Permit to Construct Cell 1 Extension Amendment	September 3, 2008
Permit to Operate Cell 1 Extension	September 9, 2009
Permit to Operate Cell 1 Extension <i>Administrative Modification to Attachment 3, Condition 17 and 18d removed requirement to weigh all disposed waste.</i>	October 14, 2009
Permit to Construct Cell 2	August 4, 2010

### PART II: List of Documents for the Approved Plan

1. *Industrial Landfill Lateral Expansion Permit Application, International Paper, Riegelwood, North Carolina. (Permit Number 24-02).* Prepared for: International Paper, Riegelwood, NC. Prepared by: G.N. Richardson & Associates, Inc. Raleigh, NC. February 2002.
2. Drawings entitled: *International Paper. Columbus County, North Carolina. Industrial Landfill Permit Application.* February 2002. 27 Sheets.
3. *Construction Quality Assurance Report, International Paper-Riegelwood Mill, Industrial Landfill, Cell 1 Construction. Permit Number 24-04.* Prepared for: International Paper-Riegelwood Mill, 805 John L. Riegelwood Road, Riegelwood, North Carolina 28456. Prepared by: G.N. Richardson & Associates, Inc. Raleigh, NC. December 2003.
4. *Water Quality Monitoring Plan / International Paper – Riegelwood Mill Industrial Landfill.* Prepared by: G.N. Richardson & Associates, Inc. Raleigh, NC. December 30, 2004 [DIN 7985]
5. *Operations Manual. International Paper- Industrial Landfill Facility, Permit #24-02. Riegelwood, North Carolina.* Prepared by: International Paper, Engineering Technology. February 2005. [DIN 5365]
6. *Permit Modification for Cell 1 Extension.* Prepared by: Richardson Smith Gardner & Associates, Raleigh, NC. July 13, 2007, revised August 12, 2008. [DIN5406]
7. *Construction Quality Assurance Report, International Paper-Riegelwood Mill, Industrial Landfill, Cell 1 Extension.* Prepared for: International Paper- Riegelwood Mill, 805 John L. Riegel Road, Riegelwood, North Carolina 28456. Prepared by: G.N. Richardson & Associates, Inc. Raleigh, NC. May 2009. [DIN7970-7981].
8. *Cell 2 Landfill Liner System Construction Permit Application Documents, Permit to Construct Application for Cell 2.* Prepared for: International Paper-Riegelwood Mill, Riegelwood, NC. Prepared by: URS Corporation, Morrisville, NC. January 7, 2010 [DIN 7292], revised July 6, 2010 [DIN 11224 and 11225].

### **PART III: GENERAL PERMIT CONDITIONS**

1. This permit is issued by the North Carolina Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section (Section). In accordance with North Carolina Solid Waste Management Rule 15A NCAC 13B .0201(d), a solid waste management facility permit shall have two parts: a Permit to Construct and a Permit to Operate.
  - a. The Permit to Construct shall expire at the close of business February 1, 2012. The Permit to Construct conditions are contained in Attachment 2 of this permit.
  - b. The Permit to Operate shall expire at the close of business September 9, 2014. Pursuant to 15A NCAC 13B .0201(g), no later than Wednesday March 9, 2014, the owner or operator must submit a request to the North Carolina Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section for permit review and must update pertinent facility plans including but not limited to the facility operation and waste screening plans.
2. The person or persons to whom this permit is issued (“Permittee”) are the owners and operators of the solid waste management facility.
3. [Intentionally Blank]
4. When this property is sold, leased, conveyed, or transferred in any manner, the deed or other instrument of transfer must contain in the description section in no smaller type than that used in the body of the deed or instrument, a statement that the property has been used as a Industrial Landfill (ILF) and a reference by book and page to the recordation of the permit.
5. By receiving waste at this facility, the Permittee shall be considered to have accepted the terms and conditions of this permit.
6. Construction and operation of this solid waste management facility must be in accordance with the Solid Waste Management Rules, 15A NCAC 13B; Article 9 of the Chapter 130A of the North Carolina General Statutes (NCGS 130A-290, et seq.); the conditions contained in this permit; and the approved plan. Should the approved plan and the rules conflict, the Solid Waste Management Rules shall take precedence unless specifically addressed by permit condition.
7. This permit is issued based on the documents submitted in support of the application for permitting the facility including those identified in Attachment 1, Part II “List of Documents for Approved Plan,” which constitutes the approved plan for the facility. Where discrepancies exist, the most recent submittals and the Conditions of Permit shall govern.
8. This permit may be transferred only with the approval of the Solid Waste Section through the issuance of a new or substantially amended permit in accordance with applicable statutes and rules.

In accordance with NCGS 130A-295.2(g), the Permittee must notify the Solid Waste Section thirty (30) days prior to any significant change in the identity or business structure of either the owner or the operator including but not limited to a proposed transfer of ownership of the facility or a change in the parent company of the owner or operator of the facility.

9. The permittee is responsible for obtaining all permits and approvals necessary for the development of this project including but not limited to:
  - a. Approval from appropriate agencies for a General or Individual NPDES Stormwater Discharge Permit.
  - b. All sedimentation/erosion control activities in accordance with the Sedimentation Control Act N.C.G.S. 113A-50, et seq., and rules promulgated there under at 15A NCAC 4.
10. Issuance of this permit does not remove the permittee's responsibilities for compliance with any other local, state or federal rule, regulation or statute.

*- End of Section -*

**ATTACHMENT 2**  
**CONDITIONS OF PERMIT TO CONSTRUCT**

1. Pursuant to the NC Solid Waste Management Rules (Rules) 15A NCAC 13B .0201(c) and (d)(1), this permit approves construction for Cell 2 of the landfill consisting of approximately 12.65 acres with a design disposal capacity of 1,173,921 cubic yards of airspace as shown in the table below.

<b>Area</b>	<b>Acres</b>	<b>Capacity, cu yds</b>	<b>Status</b>
Cell 1	13.89	905,007	Permitted to Operate
Cell 1 Vertical Expansion	2.25	158,170	Permitted to Operate
Cell 2	12.65	1,173,921	Permitted to Construct <i>[This permit]</i>
<b>Totals</b>	<b>28.79</b>	<b>2,237,098</b>	-

2. Cell 2 is the final permitted landfill unit at the facility. Any expansion of disposal operation at the property requires a new application for a landfill Permit to Construct and Operate in accordance with the North Carolina Solid Waste Management Rules and statutes in effect at that time.
3. Construction authorized by this Permit to Construct must commence within 18 months from the issuance date of this permit.
  - a. If construction does not begin within 18 months from the issuance date of this permit, then the Permit to Construct shall expire.
  - b. Construction includes but is not limited to issuance of construction contracts, clearing and grading, mobilization of equipment on site and installation of sedimentation and erosion control structures.
  - c. The permittee may reapply for the Permit to Construct prior to the expiration date. The re-application will be subject to the statutes and rules in effect on that date and may be subject to additional fees.
4. Construction of all solid waste management units within this facility must be in accordance with the pertinent approved plans and only for those phases of development approved for construction as described in Attachment I, Part II List of Documents for the Approved Plan.
5. The permittee must conduct a preconstruction meeting with the construction contractor and the owner's consultant at the facility prior to initiating construction of any unit/cell and must notify the Section at least 10 days prior to the meeting.

6. Modifications or revisions of the approved documents or changes during construction of any landfill unit/cell require approval by the Section, and may constitute a permit modification and be subject to a permitting fee.
7. The following conditions must be met prior to operation of Cell 2:
  - a. The Permittee must obtain a Permit to Operate for the phase from the Section in accordance with 15A NCAC 13B .0201(d).
  - b. Construction Quality Assurance (CQA) documentation and a certification by the project engineer that the landfill was built in accordance with approved plans and the conditions of the permit must be submitted to the Section for review and approval. Certification must include documentation of successful flushing, cleaning and remote camera inspection of the leachate collection system.
  - c. The Permittee must contact the appropriate regional environmental specialist and permitting engineer to determine whether the Section chooses to hold a pre-operative meeting with key landfill personnel and representatives of the Section.
  - d. The edge of the waste footprint must be identified with permanent physical markers.
  - e. Documentation of financial assurance mechanisms must be submitted to the Section. The financial assurance amount must include closure and post-closure costs including the new phase to receive the PTO, in accordance with 15A NCAC 13B .1628.

#### **GEOLOGIC, GROUND WATER AND MONITORING REQUIREMENTS**

7. Prior to issuing the Permit to Operate, new ground water monitoring wells and surface water stations must be sampled for the Appendix I constituent list.
8. Prior to construction of the phase or cell(s) within the phase, all piezometers, borings, and groundwater monitoring wells within the footprint must be properly abandoned in accordance with 15A NCAC 2C .0113 (b)(1), entitled "Abandonment of Wells."
9. In areas where soil is to be undercut, abandoned piezometers, monitoring wells and borings must not be grouted to pregrade land surface, but to the proposed base grade surface to prevent having to cut excess grout and possibly damage the wells.
10. A Licensed Geologist must report any pertinent geological feature(s) exposed during phase or cell excavation. Prior to placing any landfill liner, the geologist must submit to the Section hydrogeologist a written report that includes an accurate description of the exposed geological feature(s) and effect of the geological feature(s) on the design, construction, and operation of the cell, phase, or unit.

11. A Licensed Geologist must supervise and document installation of groundwater monitoring wells and surface water sampling stations.
12. Any modification to the approved water quality monitoring, sampling, and analysis plan must be submitted to the Section hydrogeologist for review and approval.
13. Within 30 days of completed construction of each new groundwater monitoring well, a well construction record (GW-1 form), typical well schematic, boring log, field log and notes, and description of well development activities must be submitted to the Section. Each monitoring well and gas probe must be surveyed for location and elevation.
14. The permittee must submit to the Section a plan sheet-sized (approximately 24 inches by 36 inches), scaled topographical map, showing the location and identification of new, existing, and abandoned wells and piezometers after installation of groundwater monitoring wells.
15. Within thirty (30) days of the completed permanent abandonment of a groundwater monitoring well, the well abandonment record (GW-30 form) and any additional information included in the abandonment record must be submitted to the Section. The well abandonment records must be submitted to the Section consistent with 15A NCAC 2C .0114(b) and be certified by a Licensed Geologist.
16. All forms, reports, maps, plans, and data submitted to the Section must include an electronic copy.

#### **EROSION AND SEDIMENTATION CONTROL REQUIREMENTS**

17. All required sedimentation and erosion control measures must be installed and operable to mitigate excessive on-site erosion and to prevent silt from leaving the area of the landfill unit during the service life of the facility.
18. All earth disturbing activities must be conducted in accordance with the Sedimentation Pollution Control Act of 1973 (15 NCAC 4) and consistent with any other local, state or federal requirements.
19. Facility construction, operations or practices must not cause or result in a discharge of pollution, dredged material, and/or fill material into waters of the state in violation of the requirements under Sections 401 and 404 of the Clean Water Act, as amended.
20. Modifications to the approved sedimentation and erosion control activities require approval by the North Carolina Land Quality Section. The Section must be notified of any sedimentation and erosion control plan modifications.

- End of Section -

### **ATTACHMENT 3 CONDITIONS OF PERMIT TO OPERATE**

#### **PART I: INDUSTRIAL LANDFILL UNIT SPECIFIC CONDITIONS**

##### **OPERATIONAL CONDITIONS**

1. This permit approves a 5-year operational period in the Cell 1 and Cell 1 Extension Area with a total permitted disposal capacity of approximately 896,000 cubic yards in the Cell 1 Area including 147,000 cubic yards of additional capacity in the Cell 1 Extension Area consistent with the approved plans listed in Attachment 3, Part II. This permit to operate does not approve operation of any additional phases or cells outside of Cell 1.
2. This facility is permitted for an average annual disposal rate of approximately 130,000 tons of industrial waste generated from the International Paper Riegelwood Pulp and Paper Mill located adjacent to the landfill, including asbestos, consistent with the approved plans and other nonhazardous solid wastes as may be specifically approved by the Section. The permitted average annual tonnage corresponds to a disposal rate of approximately 500 tons per day based on 256 operating days per year.
3. The facility operator must complete an approved operator training course in compliance with G.S. 130A-309.25.
  - a. A responsible individual certified in landfill operations must be on-site during all operating hours of the facility at all times while open for public use to ensure compliance with operational requirements.
  - b. All pertinent landfill-operating personnel must receive training and supervision necessary to properly operate the landfill units in accordance with G.S. 130A-309.25 and addressed by memorandum dated November 29, 2000.
4. Waste material must be placed in thin lifts that promote runoff away from landfilled material and landfill stabilization as described in the facility Operations Manual [DIN 5365].
  - a. Daily cover is not required due to the lack of putrescible wastes in the approved waste stream.
  - b. Intermediate cover must be applied when necessary to mitigate dust generation.
  - c. Paper or other materials susceptible to wind erosion must be covered with low eroding or intermediate cover material immediately.
5. Closure or partial closure of any disposal unit must be in accordance with the Closure Plans described in the approved plans and 15A NCAC 13B.
  - a. Final Closure Plans must be submitted to the Division for review and approval at least 90 days prior to scheduled implementation.
  - b. Closure and Post-Closure cost estimates and financial instruments must be updated annually pursuant to N.C. General Statute 130A-295.2.

## **MONITORING AND REPORTING**

6. The ground water, leachate, underdrain, secondary collection and methane monitoring system must be maintained and monitored as described in the approved Operations Manual [DIN 5365] and Water Quality Monitoring Plan [DIN 7985].
7. A licensed geologist must be present to supervise the installation of groundwater monitoring wells. The exact locations, screened intervals, and nesting of the wells must be established after consultation with the SWS Hydrogeologist at the time of well installation.
8. The owner or operator must sample the groundwater monitoring wells and surface water sampling locations semi-annually or as otherwise directed in writing by the Solid Waste Section Hydrogeologist.
9. Reports of the analytical data for each monitoring event must be submitted to the Section within 60 days of the respective sampling event. Analytical data must be submitted in a manner prescribed by the Section. Records of all groundwater, surface water, and leachate analytical data must be kept as part of the permanent facility record.
10. Four independent samples comprise the initial baseline sampling event that must be collected from each new groundwater monitoring well and the report must be submitted to the Section within six months after issuance of the Permit to Operate. [Note: This condition only applies to any new well(s).]
11. Untreated leachate, secondary collection and underdrain water must be sampled and analyzed at least semi-annually concurrently with the groundwater water sampling and analyzed for constituents listed in Table 2 of the approved Water Quality Monitoring Plan [DIN 7985]. Test results must be submitted to the Section along with ground water test results.
12. The Action Leakage Rate (ALR) for the secondary leachate collection system is 500 gallons per acre per day as approved in the Operations Manual [DIN 5365]. The permittee must notify the Section in writing within 7 days of exceeding the ALR. Within 30 days of exceeding the ALR, the permittee must submit a plan for identifying the source of the liquid and for remedial action.
13. Readily accessible and unobstructed paths must be maintained allowing access for four-wheel vehicles to the monitoring locations at all times.
14. Details describing the development, sampling, repair and all other pertinent activities associated with each monitoring well and all sampling activities associated with each secondary and underdrain water and leachate sampling location must be recorded, organized and maintained as part of the permanent facility record.
15. Complete well construction records and soil boring logs for new wells must be submitted to the Solid Waste Section Hydrogeologist for review within 30 days of completion.
16. Copies of this permit, the approved plans, and all records required to be maintained by the permittee must be maintained at the facility or approved location and made available to the Section upon request during normal business hours.

17. The owner or operator must maintain a record of the amount of solid waste received at the landfill unit compiled on a monthly basis. Approved scales must be used to develop appropriate density factors (weight/cubic yard) to convert the amount of waste disposed into tons.
18. The owner or operator must initially clean and perform remote camera inspection of the leachate collection system annually for at least 3 consecutive years.
  - a. Video recordings and written documentation of the remote camera inspections must be organized and maintained in the facility operating record.
  - b. Should the cleaning and remote inspection indicate the leachate collection system is substantially functioning and problem-free, the owner or operator may submit a written request for reduced frequency of cleaning and remote camera inspection of the leachate collection system. The first reduction may be for once every 3 years and then, following documentation that the collection system functions substantially problem-free, the frequency may be reduced to once every 5 years.
  - c. Should only certain segments of the leachate collection system exhibit higher need for maintenance, then the owner or operator may submit a written request for reduced frequency of cleaning and remote camera inspection for the segments of the leachate collection system that substantially function problem-free, but must continue the procedures annually for those portions of the leachate collection system that do not function problem-free until 2 consecutive inspections demonstrate the leachate collection lines substantially function problem-free.
  - d. Following cleaning and remote camera inspection that demonstrates a problem in the collection system, the procedure must be repeated annually until 2 consecutive procedures demonstrate the system functions substantially problem-free.
  - e. For the purposes of this condition, problem-free may include but is not limited to no or minimal evidence of clogging, complete and error-free travel of remote camera, evidence of complete and intact leachate collection pipes, and consistent grade in pipe elevation.
19. On or before August 1 annually, the Permittee must submit an annual facility report to the Solid Waste Section on forms prescribed by the Section.
  - a. The reporting period shall be for the previous year beginning July 1 and ending June 30.
  - b. The annual facility report must list the amount of waste received and landfilled in tons and be compiled:
    - i. On a monthly basis.

- ii. By county, city or transfer station of origin (if applicable).
  - iii. By specific waste type.
  - iv. By disposal location within the facility.
  - v. By diversion to alternative management facilities.
- c. A measurement of volume utilized in the landfill cells must be performed during the second quarter of the calendar year unless otherwise approved. The date and volumes, in cubic yards, must be included in the report.
- d. The amount of waste in tons disposed in landfill cells from the initial placement of waste through the date of the annual volume survey must be included in the report.
- e. The completed report must be forwarded to the Regional Waste Management Specialist for the facility by the date due on the prescribed annual facility report form.
- f. A copy of the completed report must be forwarded to each county manager for each county from which waste was received at the facility (if applicable). Documentation that a copy of the report has been forwarded to the county managers must be sent to the Regional Waste Management Specialist by the date due on the prescribed annual facility report form (if applicable).

*- End of Permit Conditions -*