

Columbus Co. 24-02

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State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



December 6, 1996

Mr. Joe Zuncich
International Paper
P. O. Box 8
Riegglewood, NC 28456

RE: Preliminary Evaluation, International Paper Industrial Landfill, Columbus County, Permit Number 24-02

Dear Mr. Zuncich:

In accordance with the requirements of Rule .0503(2)(d)(ii), the Solid Waste Section has completed its preliminary evaluation of the information submitted for the referenced landfill. Rule .0503(2)(d)(ii) establishes the requirements for the operators of new industrial waste landfills, lateral expansions of existing landfills, and industrial landfills operating after January 1, 1998. The rule requires the submittal of a design that ensures that the ground water standards established under 15A NCAC 2L (2L) will not be exceeded in the uppermost aquifer at the compliance boundary or a design with a leachate collection system, a closure cap system, and a composite liner system.

Since the referenced landfill is an existing unlined landfill and it is not economically or technically feasible to retrofit an existing landfill with liners and a leachate collection system, the Rule effectively requires the operator to submit a closure cap design that ensures compliance with 2L or close before January 1, 1998.

The Section required the submittal of waste and site characterization, including available water quality data to assist in a preliminary evaluation of the existing landfill. The purpose of this submittal was to determine if a final determination of compliance with Rule .0503(2)(d)(ii) could be made based upon this information. This letter serves as notification that the information submitted to date does not provide adequate information to make a final determination as to compliance with that Rule.

In order to meet the requirements of Rule .0503(2)(d)(ii) and to provide adequate landfill capacity while evaluating the landfill design for compliance with those requirements, the Section requires the submittal of a landfill design plan including the following:

A construction and operational plan which limits development of the landfill to the lateral expansion of the waste "footprint" established as of January 1, 1998. The plan shall be developed in one-year phases and operated in such a manner that the landfill may be closed at any time.

P.O. Box 27687,
Raleigh, North Carolina 27611-7687
Voice 919-733-4996



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Mr. Zuncich
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The capacity of the landfill design plan shall not exceed five (5) years.

A water quality monitoring plan including additional wells located, sampled, and analyzed in a way that demonstrates compliance with 2L. Please contact Bobby Lutfy of the Section concerning monitoring and sampling parameters.

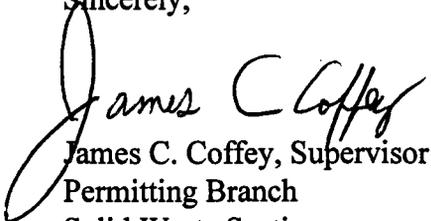
A closure plan including a final cap system designed to ensure compliance with 2L as demonstrated by modelling methods acceptable to the Section.

The submittal of this information and acknowledgement of receipt by the Section prior to January 1, 1998, will constitute compliance with Rule .0503(2)(d)(ii). However; this does not constitute final determination by the Section that the design ensures that the ground water standards established under 15A NCAC 2L will not be exceeded in the uppermost aquifer at the compliance boundary. It should be noted that a lateral expansion beyond the 1998 footprint or a new landfill must meet all the permit requirements of Rules .0503-.0505, including a demonstration that the proposed design meets the requirements of Rule .0503(2)(d)(ii).

This letter serves as notification to the owner/operator that the information previously described as necessary to complete the final determination of compliance with Rule .0503(2)(d)(ii) shall be submitted to the Section thirty (30) days prior to January 1, 1998.

If there are any questions concerning this letter, please contact Susan Leistiko at (919) 733-0692 extension 262.

Sincerely,


James C. Coffey, Supervisor
Permitting Branch
Solid Waste Section

cc: Dexter Matthews
Susan Leistiko
Terry Dover
Ikie Guyton

FAX TRANSMISSION

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH, AND
NATURAL RESOURCES

SOLID WASTE SECTION
225 GREEN STREET, SUITE 601
FAYETTEVILLE, NC 28301
(910) 486-1191
Fax: (910) 486-1791

To: PAM TOWNSEND

Date: 4/3/96

Fax #:

Pages: 8 , including this cover sheet.

From: JIM BARBER

Subject: INDUSTRIAL C.F. INFO. / AND LTR. TO F.P.B.

COMMENTS: CALL IF INFO. IS NOT READABLE. 1

FAX TRANSMITTAL SHEET

North Carolina Department of Environmental
Health, and Natural Resources
225 Green Street, Suite 601
Fayetteville, North Carolina 28301

Solid Waste Section - Fax No. 910-486-1191

Public Water Supply - Fax No. 910-486-1858

To: _____

From: _____

Subject: _____

Comments: _____

Number of Pages Including Cover Sheet: _____

Please call (910) 486-1191 if you did not receive entire transmittal.

- (44) "Soil Group I" means soil group I as defined in 15A NCAC 13B .0807(a)(1)(A) of the Septage Management Rules.
- (45) "Windrow" means an elongated compost pile (typically eight feet wide by ten feet high).
- (46) "Yard Waste" means "Yard Trash" and "Land-clearing Debris" as defined in G.S. 130A-290, including stumps, limbs, leaves, grass, and untreated wood.
- (47) "Residues from Agricultural Products and Processing" means solids, semi-solids or liquid residues from food and beverage processing and handling; silviculture; agriculture; and aquaculture operations that are non-toxic, non-hazardous, and contain no domestic wastewater.
- (48) "Treatment and Processing Waste" means waste that is a residual solid from a wastewater treatment or pretreatment facility.
- * (49) "Industrial Process Waste" means any solid, semi-solid, or liquid waste generated by a manufacturing or processing plant which is a result of the manufacturing or processing process. This definition does not include packaging materials associated with such activities.
- (50) "Mulch" means a protective covering of various substances, especially organic, to which no plant food has been added and for which no plant food is claimed. Mulch is generally placed around plants to prevent erosion, compaction, evaporation of moisture, freezing of roots, and weed growth.
- (51) "Soil Scientist" means an individual who is a Certified Professional Soil Scientist or Soil Specialist by American Registry of Certified Professional in Agronomy, Crops, and Soils (ARCPACS) or an individual that demonstrates equivalent experience or education.
- (52) "Foreign Matter" means metals, glass, plastics, rubber, bones, and leather, but does not include sand, grit, rocks or other similar materials.
- (53) "Land clearing waste" means solid waste which is generated solely from land clearing activities such as stumps, trees, limbs, brush, grass, and other naturally occurring vegetative material.
- (54) "Land clearing and inert debris landfill" means a facility for the land disposal of land clearing waste, concrete, brick, concrete block, uncontaminated soil, gravel and rock, untreated and unpainted wood, and yard trash.
- (55) "Yard trash" means solid waste resulting from landscaping and yard maintenance such as brush, grass, tree limbs, and similar vegetative material.
- (56) "Erosion control measure, structure, or device" means physical devices constructed, and management practices utilized, to control sedimentation and soil erosion such as silt fences, sediment basins, check dams, channels, swales, energy dissipation pads, seeding, mulching and other similar items.
- * (57) "Industrial Solid Waste Landfill" means a facility for the land disposal of "industrial solid waste" as defined in Item (11) of Rule .1602 of this Subchapter, and is not a land application unit, surface impoundment, injection well, or waste pile, as defined under 40 CFR Part 257.

*History Note: Statutory Authority G.S. 130A-294; Eff. April 1, 1982;
Amended Eff. October 1, 1995; January 4, 1993; December 1, 1991; February 1, 1991.*

.0102 APPLICABILITY

These solid waste management rules are for general application throughout the State of North Carolina unless otherwise specifically indicated by their context. Rules found in Section .0700 of this Subchapter apply to the Division's program for solid waste management and also to the Division's program for hazardous waste management. All other rules of this Subchapter apply to the Division's program for solid waste management but not to the Division's program for hazardous waste management. Other hazardous waste management program rules are found in 15A NCAC 13A. The official policy and purpose of the State of North Carolina in regard to solid waste control is set forth in Article 9 of Chapter 130A of the North Carolina General Statutes.

*History Note: Statutory Authority G.S. 130A-294; Eff. April 1, 1982;
Amended Eff. February 1, 1991; October 1, 1984.*

115: 13B .0100

.0103 GENERAL CONDITIONS

(a) All solid waste shall be stored, collected, transported, separated, processed, recycled, recovered, and disposed of in a manner consistent with the requirements of these Rules. The Division of Solid Waste Management is responsible for the enforcement of these Rules.

(b) No radioactive waste material shall be collected and transported, stored, treated, processed, disposed of or reclaimed, except as specifically authorized by a radioactive material license issued by the Division of Radiation Protection, DEHNR.

(c) Solid waste shall be disposed of at a solid waste disposal site in accordance with the Solid Waste Management Act and the Federal Act. Hazardous waste, lead acid batteries, liquid waste, including used oil, regulated medical waste, and any other wastes that may pose a threat to the environment or the public health, as determined by the Division, are prohibited from disposal at a solid waste disposal site.

(d) The Division has developed a "Procedure and Criteria for Waste Determination" which is used to determine whether a waste is:

- (1) hazardous as defined by 15A NCAC 13A, and
- (2) suitable for disposal at a solid waste management facility.

Information required for evaluation includes the identity of the generator, identity of the waste and how it was generated, and laboratory results indicating the chemical constituency of the waste. Copies of "Procedure and Criteria for Waste Determination" may be obtained from and inspected at the Division, P.O. Box 27687, Raleigh, N.C. 27611-7687. The waste determination procedure shall be used for:

- (A) Waste which is generated outside the population and geographic area which the solid waste management facility is permitted to serve under .0504(1)(g).
- (B) Waste from a transfer facility other than a facility permitted under these Rules.
- (C) Waste generated by a new generator inside the population and geographic area which the Solid Waste Management Facility is permitted to serve if the components of the waste cannot be readily determined otherwise.
- (D) Waste generated through a change in industrial process by an existing generator, provided the components of the waste cannot be readily determined otherwise.
- (E) A load of waste which a sanitary landfill operator suspects may contain materials which the facility is not permitted to receive.
- (F) Requests by a generator interested in transporting waste to an identified solid waste management facility for treatment and processing, transfer or disposal.
- (G) All sludges except sludge from water treatment plants.
- (H) Other wastes deemed appropriate by the Division for testing before transporting to a solid waste management facility.

(e) No person shall dispose or cause the disposal of solid waste in or on waters in a manner that results in solid waste's entering waters or being deposited upon lands of the state.

(f) White Goods shall not be disposed of at a solid waste disposal site after January 1, 1991.

(g) By July 1, 1991, all solid waste management facilities owned and operated by or on behalf of a local government, except facilities which will receive no waste after July 1, 1992, shall install scales and weigh all solid waste when it is received at the facility.

(h) By July 1, 1991, each local government operating a permitted solid waste management facility shall initiate a solid waste recycling program which shall be designed to achieve the goal of recycling at least 25 percent of the municipal solid waste stream by January 1, 1993, prior to final disposal or incineration at a solid waste disposal facility.

(i) After January 1, 1998, all active sanitary landfills (except land clearing and inert debris landfills) shall be equipped with liners, leachate collection systems and final cover systems as required in Sections .0500 and .1600 of this Subchapter.

History Note: Filed as a Temporary Amendment Eff. October 28, 1988, for a Period of 180 Days to Expire on April 26, 1989; Statutory Authority G.S. 130A-294; Eff. April 1, 1982; Amended Eff. October 1, 1995; January 4, 1993; February 1, 1991; September 1, 1990.

.0503 SITING AND DESIGN REQUIREMENTS FOR DISPOSAL SITES

Disposal sites shall comply with the following requirements in order for a permit to be issued:

- (1) A site shall meet the following siting requirements:
 - (a) A site located in a floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.
 - (b) A site shall be located in consideration of the following:
 - (i) a site shall not cause or contribute to the taking of any endangered or threatened species of plants, fish or wildlife;
 - (ii) a site shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species as identified in 50 C.F.R. Part 17 which is hereby incorporated by reference including any subsequent amendments and editions. This information is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Solid Waste Management, 401 Oberlin Road, Raleigh, North Carolina 27605 where copies can be obtained at no cost;
 - (iii) a site shall not damage or destroy an archaeological or historical site; and
 - (iv) a site shall not cause an adverse impact on a state park, recreation or scenic area, or any other lands included in the state nature and historic preserve.
 - (c) A new site disposing of putrescible wastes shall not be located within 10,000 feet of an airport runway used by turbojet aircraft or within 5,000 feet of an airport runway used by piston-type aircraft; and
 - (d) A site shall have available adequate suitable soils for cover either on-site or from off-site.
- (2) A site shall meet the following design requirements:
 - (a) The concentration of explosive gases generated by the site shall not exceed:
 - (i) twenty-five percent of the limit for the gases in site structures (excluding gas control or recovery system components); and
 - (ii) the lower explosive limit for the gases at the property boundary;
 - (b) A site shall not allow uncontrolled public access so as to expose the public to potential health and safety hazards at the disposal site;
 - (c) A site shall meet the following surface water requirements:
 - (i) A site shall not cause a discharge of pollutants into waters of the state that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES), under Section 402 of the Clean Water Act, as amended, or that is in violation of standards promulgated under G.S. 143-214.1 and G.S. 143-215;
 - (ii) A site shall not cause a discharge of dredged material or fill material into waters of the state that is in violation of the requirements under Section 404 of the Clean Water Act, as amended, or that is in violation of any state requirements regulating the discharge of dredged or fill material into waters of the state, including wetlands; and
 - (iii) A site shall not cause non-point source pollution of waters of the state that violates assigned water quality standards.
 - (d) A site shall meet the following ground water requirements:
 - (i) A site, except for land clearing and inert debris landfills subject to Rule .0564(8)(e) of this Section, shall be designed so that the bottom elevation of solid waste will be a minimum of four feet above the seasonal high water table;
 - (ii) Operators of new industrial solid waste landfills, lateral expansions of existing industrial solid waste landfills, and industrial solid waste landfills receiving solid waste on or after January 1, 1998 shall submit to the Division a design which satisfies one of the following criteria:
 - (A) a design that will ensure that the ground water standards established under 15A NCAC 2L will not be exceeded in the uppermost aquifer at the compliance boundary established by the Division in accordance with 15A NCAC 2L. The design shall be based upon modeling methods acceptable to the Division, which shall include, at a minimum, the following factors:

- (I) the hydrogeologic characteristics of the facility and surrounding lands;
 - (II) the climatic factors of the area; and
 - (III) the volume and physical and chemical characteristics of the leachate; or
- (B) a design with a leachate collection system, a closure cap system, and a composite liner system consisting of two components; the upper component shall consist of a minimum 30-mil flexible membrane (FML), and the lower components shall consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. FML components consisting of high density polyethylene (HDPE) shall be at least 60-mil thick.
- The FML component shall be installed in direct and uniform contact with the compacted soil component.
- (iii) The Division reserves the right to require an applicant to submit a liner design if the groundwater protection demonstration in sub-item (ii) of this paragraph is not satisfactory.
 - (iv) Industrial solid waste landfills shall comply with ground water standards established under 15A NCAC 2L at the compliance boundary.
 - (e) A site shall not engage in open burning of solid waste;
 - (f) A site, except a land clearing and inert debris landfill, shall meet the following buffer requirements:
 - (i) A 50-foot minimum buffer between all property lines and disposal areas;
 - (ii) A 500-foot minimum buffer between private dwellings and wells and disposal areas; and
 - (iii) A 50-foot minimum buffer between streams and rivers and disposal areas; and
 - (g) Requirements of the Sedimentation Pollution Control Law (15A NCAC 4) shall be met.

History Note: Statutory Authority G.S. 130A-294; Eff. April 1, 1982; Amended Eff. October 1, 1995; January 4, 1993; February 1, 1991; September 1, 1990.



FEDERAL PAPER BOARD COMPANY, INC.



Riegelwood Operations

March 11, 1996

Mr. William L. Meyer, Director
North Carolina Division of
Solid Waste Management
P. O. Box 27687
Raleigh, NC 27611-7687

SUBJECT: Ownership and Permit Transfers
Landfill Permit 24-02

Dear Mr. Meyer:

This is to notify you that ownership of Federal Paper Board Company will be transferred to International Paper Company on or about March 12, 1996. As a result, we are requesting that the landfill permit issued by the DSWM be transferred to International Paper.

If additional information is needed, please call me at (910) 655-6309.

Sincerely,

FEDERAL PAPER BOARD COMPANY, INC.
Riegelwood Operations

J. L. Zuncich, Sr., R.E.P.
Environmental Resources Group Leader

JLZsr/grm

cc: Crystal Smith
Chuck Wakild
John Flynn
Kirk Semke
Nehl Aldridge

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director



January 18, 1996

Mr. Joe Zuncich
Federal Paper Board Co.
P. O. Box 8
Riegglewood, NC 28456

RE: Status of Federal Paper Board Industrial Landfill, Permit Number 24-02, Columbus County

Dear Mr. Zuncich:

The purpose of this letter is to inform the owner/operator of the referenced facility of their responsibilities under the recently adopted industrial waste rules.

Rule .0503(d)(iii) of the solid waste management rules codified at 15A NCAC 13B requires that operators of new industrial waste landfills (ILFs), lateral expansions of existing ILFs, and ILFs operating on or after January 1, 1998, shall submit to the Division a design that satisfies one of the following criteria:

(A) a design that will ensure that the ground water standards established under 15A NCAC 2L will not be exceeded in the uppermost aquifer at the compliance boundary established by the Division in accordance with 15A NCAC 2L. The design shall be based upon modelling methods acceptable to the Division, which shall include at a minimum the following factors:

- (I) the hydrogeologic characteristics of the facility and surrounding lands;
- (II) the climatic factors of the area; and
- (III) the volume and physical and chemical characteristics of the leachate, or

(B) a design with a leachate collection system, a closure cap system, and a composite liner system consisting of two components: the upper component shall consist of a minimum 30-mil flexible membrane (FML), and the lower components shall consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. FML, components consisting of high density polyethylene (HDPE) shall be at least 60-mil thick.

An existing landfill is defined as a landfill that is receiving waste on October 1, 1995, the effective date of this rule and is not a new landfill. A lateral expansion of an existing landfill is

Mr. Zuncich
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defined as the placement of waste outside the actual waste "footprint" established prior to January 1, 1998. A new landfill is defined as a landfill that has not received waste prior to October 1, 1995, the effective date of the rules.

Under this rule, an existing landfill may continue to operate until January 1, 1998. However; if the existing landfill proposes to operate on or after that date, it must demonstrate that its current design or a proposed design change to the existing landfill will ensure compliance with the ground water standards as required in criteria (A) of Rule .0503(d)(iii). If a lateral expansion of the existing landfill or a new landfill is proposed, a permit application that meets all the requirements of Rules .0503, .0504, and .0505 must be submitted for review and approval.

If the owner/operator of the referenced landfill proposes to operate on or after January 1, 1998, the Division requires the submittal of the following information to assist in the **preliminary evaluation** of the existing landfill:

- (1) A waste stream characterization including all waste types received over the life of the landfill. Waste determination forms and additional chemical analyses may be required for certain wastes.
- (2) A site characterization including a plat indicating the following relationships: current waste "footprint", projected waste boundary as of January 1, 1998, permitted waste boundaries, permitted facility boundaries, property boundaries (if different from the permitted boundaries) and existing ground water monitoring wells. The ground water monitoring wells must be located on the plat in such a manner that accurate distances from the wells and the pertinent boundaries may be determined. Well construction records should be provided for each monitoring well.
- (3) An analysis and explanation of ground water monitoring results relative to the ground water standards.
- (4) A proposed plan to demonstrate that the design of the existing landfill or a design change to the existing landfill will ensure compliance with the ground water standards at the existing landfill, including proposed design changes and modelling methods to demonstrate compliance.

The Division will use this information to make a preliminary evaluation for the existing landfill in accordance with criteria (A). Additional information may be required for the preliminary determination.

The Division may require more specific information to make the **final determination**, including modelling methods acceptable to the Division which include, at a minimum, the factors (I), (II), and (III) above. Additional hydrogeologic, climatic, and leachate characterization may be required to develop an acceptable model. If a design change is approved as part of the final determination, a permit application may be required. This additional information will be specified by the Division when the preliminary determination is made.

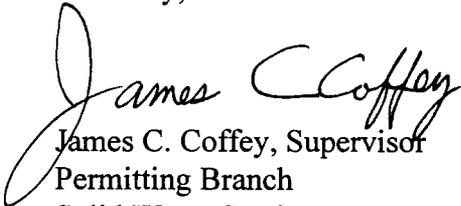
Mr. Zuncich
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As stated previously, if a lateral expansion of the existing landfill or a new landfill is proposed, the submittal of a complete permit application will be required.

This letter serves as notification to the owner/operator that the information previously described as necessary to begin a preliminary evaluation of the referenced facility should be submitted to the Division by July 1, 1996.

If there are any questions regarding this letter, please call Susan Wright at (919) 733-0692 extension 262.

Sincerely,


James C. Coffey, Supervisor
Permitting Branch
Solid Waste Section

cc: Dexter Matthews
Susan Wright
Terry Dover
Ikie Guyton

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