

WAYNE Co.
1990

9601 1990

Tan

96-01 WQ
Wayne Co.



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

May 1, 1990

Mr. Lloyd S. Cook
Solid Waste Manager
115 South William Street
Goldsboro, North Carolina 27530

Re: Surface Water Monitoring at the Wayne County Sanitary
Landfills, Permit #(96-01&96-02).

Dear Mr. Cook:

This letter is in response to the proposed surface water monitoring plan received from your office. After review, the plan has been approved. Thank you for your cooperation in this matter. If you have questions or comments, please contact this office at (919) 733-0692.

Sincerely,

Gray B. Stephens
Hydrogeological Technician
Solid Waste Section

cc: Bobby Lutfy
Billy Morris
Terry Dover



WQ
Wayne County
96-01

State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

March 14, 1990

Mr. Jeff Beehler
Municipal Engineering Services
P.O. Box 97
Garner, NC 27529

RE: Replacing Ground-Water Monitoring Wells at the Wayne County
Landfill (Permit #96-01)

Dear Mr. Beehler:

Enclosed is a copy of the "North Carolina Water Quality Monitoring Guidance Document for Solid Waste Facilities", a Typical Monitoring Well Schematic, and a copy of "Submitting a Ground-water Monitoring Plan. Please submit a monitoring plan to our office for approval prior to well installation.

As we discussed in our telephone conversation yesterday, the locations of the existing downgradient wells are sufficient. The new wells can be located in the same general area as the existing downgradient wells. However, the well close to the road should be relocated further up to the top of the property near the power line right-of-way close to the road. Past records indicate this location to be more suitable for the upgradient (background) monitoring well.

If you have further questions, please contact this office at (919) 733-0692.

Sincerely,

mj for Bobby Lutfy

Bobby Lutfy, Hydrogeologist
Solid Waste Section

BL/mj

cc: Terry Dover
Billy Morris
Lloyd Cook

Enclosures

9601



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobby, Jr., Secretary

March 7, 1990

William L. Meyer
Director

Will Sullivan, County Manager
County of Wayne
Box 227
Goldsboro, NC 27530

RE: Amendment to Permit #96-01, Wayne County Vertical Expansion

Dear Mr. Sullivan:

The enclosed Amendment to Permit for the referenced facility is approved in accordance with G.S. 130A-294, subject to the Conditions of Permit.

This permit is for the property defined in the attached descriptions and amends the facility description to include the 35.23 acre borrow area (8.8 acres of which is to be disturbed). The Conditions of Permit supersede any conditions issued heretofore.

Please note General Condition No. 1 which states that modifications of this permit may be required in accordance with upcoming revisions to the Solid Waste Management Rules and revised EPA Subtitle D criteria. Modifications to the construction and operational plans or even closure of this landfill may be required before the five-year permit period expires. This amendment provides a planning period, which the County should use to develop a comprehensive solid waste management plan.

Within 60 days of the issuance of the permit, on a mutually agreeable date, all parties concerned shall have a walk-thru of the facility to evaluate compliance with the permit.

If there are any questions, please contact me at (919) 733-0692.

Sincerely,

Suzanne Molloy
Environmental Engineer
Solid Waste Section

SM/mj

cc: Terry Dover
Bill Morris
Jim Woodie - Municipal Engineering
Lloyd Cook

AMENDMENT TO PERMIT NO. 96-01
DATE ISSUED 3-6-90

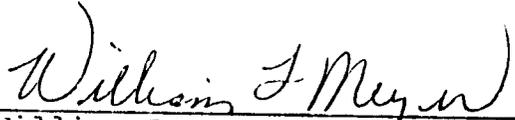
STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES
DIVISION OF SOLID WASTE MANAGEMENT
P.O. BOX 27687 RALEIGH, NC 27611-7687

S O L I D W A S T E P E R M I T

WAYNE COUNTY

is hereby issued a permit to operate a
SANITARY LANDFILL
located
at SR 1129 near Dudley, N.C.

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 on the attached sheet.



William L. Meyer, Director
Solid Waste Management Division

TRACT 1:

BEGINNING at an iron stake on the north side of the public road where a small branch crosses said public road, Fred Martin's corner, and runs thence with the north side of the said public road, eastwardly 1130 feet to a point thence with the north side of the public road, N. 56 E. 560 ft. to a point; thence the north side of the public road N. 70 E. 280 feet; thence with the north side of the public road N. 60 E. 160 feet; thence with the north side of said road N. 75 E. 320 feet; thence with the north side of said road N. 80-1/2 E. 440 feet; thence with the north side of said road, S. 84 E. 185 feet; thence with the north side of said road N. 79-1/2 E. 326 feet to a point on the north side of said road, Fred Martin's corner; thence with the line of Fred Martin's land N. 26-1/2 W. 1,100 feet to a stake, the run of Edwards Branch; thence with the run of Edwards Branch westwardly 3,000 feet to a point where a small branch empties into Edwards Branch; thence with the run of the small branch southwardly 1,700 feet, in its various courses, to an iron stake on the north side of the public road, the beginning, containing 112 acres, more or less.

Tract 2:

Beginning at any iron stake at the southeast corner of said property which is also the stake marking a corner of the adjacent Weaver property and Vester Whitley property, proceed 1,831.38' S 66° 16' W to an iron stake; thence 431.26' S 11° 46' W to an iron stake, the actual point being the centerline of Edwards Branch; thence 90.57' S 55° 25' 18" W to an iron stake, the actual property line being the centerline of Edwards Branch; thence 117.99' S 85° 44' W to an iron stake; thence 80.04' S 80° 37' 36" W to an iron stake; thence 73.73' S 88° 11' 13" W to an iron stake; thence 345.69' N 11° 46' E to an iron stake; thence 1,071.86' N 7° 44' W to an iron stake, the approximate centerline of an unnamed branch, and the actual property line being the centerline of the branch; thence 91.32' N 79° 32' 12" W; thence 113.65' N 57° 01' W; thence 247.79' N 80° 46' 48" W; thence 82.23' N 60° 52' 48" W to the centerline of Mill Run Branch, the actual property line; thence 306.14' N 38° 35' 48" E to an iron stake; thence 318.57' N 87° 01' 18" E to an iron stake; thence 377.71' S 68° 05' 54" E to an iron stake; thence 199.76' S 88° 08' 24" E to an iron stake; thence 994.84' N 78° 06' 58" E to an iron stake; thence 911.48' S 45° 39' 05" E to an iron stake, the point of beginning, and enclosing approximately 51.3 acres ±.

BORROW AREA

BEGINNING at an iron stake in the centerline of an old road, said iron stake being Leroy Nathan Langston's most Northwestern property corner; thence from the beginning leaving the said old road with Leroy Nathan Langston's most Western property line, S. 3-29 W. 13.00 feet to a concrete monument; thence continuing with said line, S. 3-29 W. 67.37 feet to an iron stake in the centerline of N. C. Secondary Road No. 1129; thence leaving said road center with Leroy Nathan Langston's line, S. 3-29 W. 34.60 feet to a concrete monument; thence continuing with Leroy Nathan Langston's line, S. 3-29 W. 658.31 feet to an iron stake; thence continuing and with said line, S. 3-29 W. 1,071.60 feet to an iron stake; thence continuing and with said line, S. 3-29 W. 562.85 feet to an iron stake; thence continuing and with said line, S. 3-29 W. 315.04 feet to an iron stake; thence continuing and with Leroy Nathan Langston's line, S. 3-29 W. 450.44 feet to an iron stake on the Northern bank of Yellow Marsh; thence continuing S. 3-29 W. 11.00 feet to a point in the centerline of Yellow Marsh, Leroy Nathan Langston's most Southwestern property corner; thence with the center of Yellow Marsh (the line) the following bearings and distances: N. 60-28 W. 128.12 feet, S. 83-47 W. 65.92 feet, N. 56-26 W. 97.89 feet, N. 48-09 W. 75.28 feet, N. 88-19 W. 31.01 feet, N. 25-16 W. 29.73 feet, N. 54-42 W. 58.46 feet, N. 16-29 W. 33.42 feet, N. 49-29 W. 48.38 feet, S. 64-05 W. 72.05 feet, S. 41-13 W. 19.06 feet to a point in the centerline of Yellow Marsh, D. M. Prince heirs most Southeastern property corner; thence leaving Yellow Marsh with D. M. Prince heirs line, N. 4-19' 30" E. 14.50 feet to a marked black gum; thence continuing N. 4-19' 30" E. 4.50 feet to an iron stake; thence continuing and with D. M. Prince heirs line, N. 4-19' 30" E. 712.98 feet to an iron stake; thence continuing and with said line, N. 4-19' 30" E. 972.23 feet to an iron stake; thence continuing and with said line, N. 4-19' 30" E. 963.16 feet to a concrete monument; thence continuing and with said line, N. 4-19' 30" E. 42.85 feet to an iron stake in the centerline of N. C. Secondary Road No. 1129; thence continuing and with D. M. Prince heirs line, N. 4-19' 30" E. 151.06 feet to a concrete monument; thence continuing N. 4-19' 30" E. 7.00 feet to an iron stake in the center of an old road; thence with the centerline of the said old road, N. 86-14 E. 300.47 feet to an iron stake; thence continuing with the center of the said old road, N. 74-05 E. 215.50 feet to an iron stake in the centerline of the said old road, Leroy Nathan Langston's most Northwestern property corner, the point of beginning, containing 35.23 acres more or less excluding the right of way of N. C. Secondary Road No. 1129 and including an easement to Carolina Power & Light Company. And being the same property conveyed to Gertrude Prince Hood by deed dated April 9, 1942, and recorded in the Wayne County Registry in Book 277, at Page 146.

A M E N D M E N T T O
S O L I D W A S T E P E R M I T
S A N I T A R Y L A N D F I L L

CONDITIONS OF PERMIT:

GENERAL

1. This permit is issued for a period not to exceed five years from the date of issuance. Upcoming amendments to the Solid Waste Management Rules, in accordance with EPA Subtitle D revisions, may necessitate the modification of the construction and operation plans or even closure of this facility prior to this date.
2. This permit shall not be effective unless the certified copy is filed in the Register of Deeds Office, in the grantor index under the name of the owner of the land in the county or counties in which the land is located. After recordation, the certified copy shall be returned to the Solid Waste Section and shall have indicated on it the page and book number, date of recordation, and Registrar's seal.
3. When this property is sold, leased, conveyed or transferred, the deed or other instrument or transfer shall 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 sanitary landfill.
4. This solid waste disposal site is permitted to receive "solid waste" generated within the territorial boundaries of Wayne County, and as defined in 10 NCAC 10G, .0101(36), except that hazardous waste and liquid waste are prohibited from disposal at this site.

CONSTRUCTION AND OPERATION

1. This permit is for construction according to the attached plans with the following conditions:

Conditions of Permit

Page 2

- a. The least permeable soil, as identified in the engineering report, shall be utilized as final cover.
- b. This permit includes a 8.8 acre tract which is to be used exclusively for borrow soil only. No waste shall be placed in this area.

Additional conditions and revisions of the approved plans shall be approved by the North Carolina Solid Waste Management Division.

2. All sedimentation/erosion control activities will be conducted in accordance with the Sedimentation Control Act (15 NCAC 4).
 - a. See modifications for the borrow and fill areas (Attachment 1).
3. This facility shall conform to operating procedures in Rule .0505 of the Solid Waste Management Rules, and the conditions specified herein.
4. A closure and post-closure plan must be submitted for approval at least 90 days prior to closure or partial closure. The plan must include all steps and measures necessary to close and maintain the facility in accordance with all rules in effect at that time. The final cover will be evaluated based upon performance and upgraded if necessary.

MONITORING REQUIREMENTS

1. A minimum of 4 ground water monitoring wells shall be installed as required by N.C. Solid Waste Hydrogeologist within 90 days of the issuance of Permit.
 - a. The location of the wells shall be verified in the field and approved by the Solid Waste Management Division (SWMD) prior to the well being constructed.
 - b. Installation shall conform to SWMD well standard (Attachment 2).
 - c. A well completion record shall be submitted to SWMD for each well constructed (Attachment 3) within 30 days upon completion.
2. Wayne County shall sample monitoring wells and surface waters annually as per the N.C. Water Quality Monitoring Guidance Document.

Conditions of Permit
Page 3

3. A readily accessible, unobstructed path shall be initially cleared and maintained so that four-wheel drive vehicles may access the monitoring wells within a reasonable distance at all times.
4. Ground water quality at this facility is subject to the classification and remedial action provisions referenced in Rule .0503(2)(d) of 10 NCAC 10G.



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

March 1, 1990

Mr. Lloyd Cook
115 South William Street
Goldsboro, North Carolina 27530

Re: The Need To Upgrade The Ground-water Monitoring System For The
Wayne County Landfill (Permit #96-01)

Dear Mr. Cook,

The recent inspection of the ground-water monitoring wells at the Wayne County Landfill revealed some problems with the existing monitoring system. The Solid Waste Section is presently in the process of reviewing the well construction records and evaluating the design and condition of the monitoring wells at all North Carolina landfill facilities. Monitoring systems that are found to have problems will need to be upgraded in order to bring them into compliance with current design standards.

The well records for this facility are incomplete. However, it appears, based upon the well construction data available and visual observations in the field, that the existing wells are converted piezometers rather than properly constructed monitoring wells. The existing wells do not conform with current design standards.

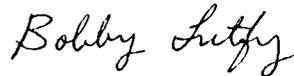
In addition to the problems associated with the original design of the wells, the existing wells have some specific problems that would also make upgrading the monitoring system necessary. One well has an obstruction that prevents the well from being sampled. Another well exhibits an artesian effect that indicates a problem with well design...the water is overflowing the inner casing and then draining through the outer casing. The outer casing of this well is also very rusted. Also there is a need to establish a true upgradient well in order to gather background water quality data. Therefore, even if the old wells had been properly constructed, it would be necessary to replace several of the wells at this time.

Page 2

For the reasons stated above, the Solid Waste Section will require that as one of the conditions of the amendment of the Sanitary Landfill Permit to allow a vertical expansion, Wayne County will need to upgrade the ground-water monitoring system to bring it into compliance with current standards. The ground-water monitoring system should be designed and constructed in a manner consistent with the "North Carolina Water Quality Monitoring Guidance Document For Solid Waste Facilities". A ground-water monitoring plan should be submitted to our office for approval prior to well installation.

If you have any questions or comments please contact our office at (919) 733-0692.

Sincerely,



Bobby Lutfy
Hydrogeologist
Solid Waste Section

Attachments

cc: ~~Terry Dover~~
✓ Suzanne Molloy
Bill Morris
Municipal Engineering Services



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

February 15, 1990

Mr. Bill Morris
404 St. Andrew Street
Greenville, NC 27834

RE: Wayne County Landfill, Amendment to Permit #96-01

Bill,

Enclosed please find a copy of the "letter of approval with modifications" from the Land Quality Section for the referenced facility.

Note the modifications pertaining to both the fill and borrow areas. A permit should be issued in the near future; however, I would like to visit the site first.

I will be in touch with you.

Sincerely,

Suzanne Molloy

Suzanne Molloy
Environmental Engineer
Solid Waste Section

SM/mj

Enclosure



State of North Carolina
Department of Environment, Health and Natural Resources
Northeastern Region
1424 Carolina Avenue, Washington, North Carolina 27889

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Lorraine G. Shinn
Regional Manager

LETTER OF APPROVAL
WITH MODIFICATIONS

DIVISION OF LAND RESOURCES
LAND QUALITY SECTION
February 14, 1990

County of Wayne
Attention: Mr. Will R. Sullivan, Manager
P.O. Box 227
Goldsboro, North Carolina 27530

RE: Dudley Landfill Vertical Expansion
Dudley - Wayne County
Date Received: January 24, 1990
Responsible Party: County of Wayne

Gentlemen:

This office has reviewed the erosion and sedimentation control plan submitted for the project as referenced above. We find the plan to be acceptable and hereby issue this letter of approval with modifications as stated on attached page.

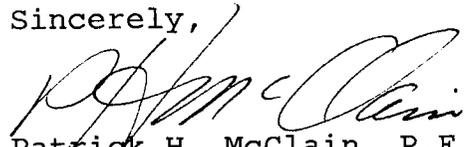
Please be advised that NCAC Title 15 4B.0017(A) requires that a copy of the approved soil erosion control plan be on file at the job site, and that inspections over the life of the project will be made to ensure compliance with the approved plan.

The state's sedimentation pollution control program is a performance oriented program requiring protection of the natural resources and adjoining properties. If, following commencement of this project, it is determined that the plan is inadequate to meet the requirements of G.S. 113A 51-66, this office may require revisions in the plan and its implementation so as to comply with the state law.

County of Wayne
February 14, 1990
Page 2

In recognizing the desirability of early coordination of sedimentation control, we believe that it would be beneficial if a pre-construction conference can be arranged to discuss the approved erosion and sedimentation control plan for this project. It would be appreciated if you would contact this office and let either Harry Bailey or me know the date of construction start-up and date of the pre-construction conference.

Sincerely,



Patrick H. McClain, P.E.
Assistant Regional Engineer

PHMcC:mr

Attachment

cc: Jeff Beehler, Municipal Engineering Services
✓Susan Malloy, Solid Waste Management Section, Raleigh

MODIFICATIONS TO APPROVAL
EROSION AND SEDIMENTATION CONTROL PLAN
DUDLEY LANDFILL VERTICAL EXPANSION
DUDLEY
WAYNE COUNTY

Borrow Area

1. A minimum 50' long by 14' wide by 6" deep construction pad of washed gravel must be provided and maintained at each point of project egress to a paved public road. The gravel size is recommended to be 1 1/2 to 3 inches.
2. The "high walls" of the borrow area must be at a 3 horizontal to 1 vertical slope when each section is complete.

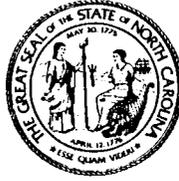
Fill Area

1. In reviewing the calculations, we have determined that Class 1 riprap will not stabilize the channels or riprap aprons (energy dissipators) in the event of a 10-year peak storm. We are, therefore, requiring that the riprap be NCDOT Class B.
2. The depth of riprap is recommended to be a minimum of 1.5 times the diameter of the largest stone. In the case of Class B. riprap, the minimum depth would be 21 inches.
3. When constructing the filter basins, note that the riprap extends to the top of the berm and that the center section of the filter check dam is lower than the sides.
4. All drop inlets must be provided with temporary inlet protection until a vegetative cover has been established.
5. The seeding specifications provided with this plan listed 19 options, not all of which are appropriate for this project area. We recommend the attached seeding specifications for this project.

NOTE: Rye grass will not be approved for use in combination with any other grass variety. We recommend that any small grain (rye, oats, millet, etc.) be used where temporary or nurse cover is required.

Both areas

A ground cover sufficient to restrain erosion must be provided within 30 working days of completion of any phase of grading on cut or filled slopes.



State of North Carolina
Department of Environment, Health, and Natural Resources
Division of Solid Waste Management
P.O. Box 27687 · Raleigh, North Carolina 27611-7687

James G. Martin, Governor
William W. Cobey, Jr., Secretary

William L. Meyer
Director

January 23, 1990

Mr. Jim Woodie
Municipal Engineering Services, Co., P.A.
P.O. Box 97
Garner, NC 27529

RE: Receipt of Complete Application - Construction Plan Application,
Wayne County, Amendment to Permit #96-01

Dear Mr. Woodie:

On January 22, 1990, the Solid Waste Section received a complete application for the referenced project. The Section is currently evaluating the application to assure its compliance with the North Carolina Solid Waste Management Rules.

Respectfully,

A handwritten signature in cursive script that reads "James C. Coffey".

James C. Coffey, Supervisor
Technical Operations Branch
Solid Waste Section

JCC/mj

cc: Will R. Sullivan, County Manager
County of Wayne
Box 227
Goldsboro, NC 27530

√Suzanne Molloy

**Municipal
Services****Engineering
Company, P.A.**

P.O. Box 97, Garner, North Carolina 27529 (919)772-5393

P.O. Box 349, Boone, North Carolina 28607 (704)262-1767

January 22, 1990

Mr. James Coffey
Supervisor, Technical Operations Branch
Solid Waste Section
401 Oberlin Road
Raleigh, NC 27602

RE: Re-Submittal - Wayne County Vertical Expansion

Dear Mr. Coffey:

This letter is in response to the Completeness Review comments of December 6, 1989. It will address each comment as listed in your letter.

- 1) See revised sheet 2 of 10 for location of existing monitoring wells as installed per construction plans for Permit #96-01. Since the fill area submitted for vertical expansion is entirely on the existing permitted area, the existing well locations should be adequate. If you feel that additional wells will be required, please have your hydrogeologist contact our office to coordinate their placement.
- 2) See revised sheets 3 and 7 of 10.
- 3)
 - (I) See sheet 9 of 10 for sequence of filling operation. There will be no temporary erosion control measures required in the fill area provided the operation plan is followed.
 - (II) See sheets 9 and 10 of 10. Revised sheet 3 of 10 shows progression of Borrow Area and required temporary erosion control measures.
 - (III) See revised construction sequence on sheets 3 and 7 of 10 and operation plan.
 - (IV) See revised construction sequence on sheet 3 of 10.
- 4)
 - (I) See Attached Deed.
 - (II) See Operation Plan.
 - (III) See Operation Plan.
 - (IV) See Operation Plan.
 - (V) See Operation Plan.

Equipment presently used includes a pan that was omitted from the equipment list on original report. The responsible use of the pan and dozer, by experienced operators, should eliminate any concerns you may have about "haphazard" removal of existing cover.

This should answer all comments but if you need additional information, please contact me at 772-5393. We would also like to get a copy of the "Design Requirements for Vertical Expansions of Existing Sanitary Landfills" referenced in your letter.

Sincerely,



Jeffrey L. Beehler

JLB:djr

Enclosures

COUNTY OF WAYNE

Sanitary Landfill Vertical Expansion

7 Working copy

Name of Operator: Lloyd Cook
Rt. 1, Box 220
Dudley, NC 28333
(919) 689-2994



Financially Responsible Party: Will Sullivan, County Manager
County of Wayne
Box 227
Goldsboro, NC 27530
(919) 731-1435

GENERAL

Wayne County is presently engaged in landfilling operations near the city of Dudley, as set forth by Permit 96-01, issued on April 30, 1981. Recent regulation changes have forced the county to make a determination of whether to submit plans for the installation of a liner, in the area described as Tract 2 of the original permit; or seek a revision to the original permit for a vertical expansion. Due to poor accessibility and the lack of adequate area with present buffer requirements, in Tract 2, the County has determined that vertical expansion is the most economically feasible thing to do. Use of the aforementioned Tract 2 as a borrow area has been determined to be non-feasible at the present time, due to the high cost of providing access. Future availability of cover material may dictate that the county eventually utilize this property, but convenience and accessibility were the county's main concerns when it acquired additional property on the south side of SR 1129, (see attached deed). Permeability test results show the soil on the new property to be more than adequate for use as a final cover.

OPERATIONAL PROCEDURE

The method of landfilling best suited for vertical expansion is area fill. After the construction of the perimeter diversion ditches, and the riser basin, preparation of the initial work area may begin. The area of the vertical expansion is entirely on top of existing fill with a final cover of 4'. Due to the shortage of suitable cover material at the site, preparation of the initial work area will include the removal and stockpiling of the top 2' of the existing cover. The removal of this material shall be carefully done in a manner that will ensure that a 2' minimum of cover remains over existing refuse. Care should also be exercised to ensure that a minimum slope of 2% be maintained to direct runoff to diversion ditches. After excavation is completed the work area shall be temporarily seeded to minimize erosion. Based on county population and estimated rates of refuse intake a daily work area of approximately 5,100 SF will be required for a 4' deep work area.

The daily work area shall always be located to prevent ponding or retention of stormwater on the refuse. This may be accomplished by filling from the high side toward the low side. Operational procedures require that daily cover be placed and compacted at the end of each day's operation. The material removed from the existing cover shall be used before material from the proposed borrow area. This will ensure that material with acceptable permeability rates will be available for final cover upon completion of the fill area. This method of filling will ensure that the closure of the fill area can be properly carried out at anytime, if deemed necessary by the Division of Solid Waste Management.

POPULATION

The estimated 1990 and 2000 population of Wayne County according to projections provided by the NC Division of Environmental Management are 103,150 and 110,250 respectively. Considering the 5 year term of the permit to run from 1990 to 1995 an average population for Wayne County was determined to be 104,925.

ANTICIPATED LIFE EXPECTANCY

County Population = 104,925.

Estimated Refuse Generation Per Capita = 5#/Day.

∴ Estimated Refuse Generation = 104,925 (5#/Day) = 524,625 #/Day.

To ensure adequate volume for the 5 year term of the permit use the worst case compaction rate of 800#/C.Y. This should provide a safety factor in case of increased industrial waste production or residential population.

∴ Volume trash/day = 524,625#/Day ÷ 800#/C.Y.
= 656 C.Y./Day.

Determine work area size required each day.

Trash Generation = 656 C.Y./Day (7 Days/Week).

Landfill Operate 6 Days/Week.

∴ Average Intake Per Day = 656 C.Y.(7/6) = 765 C.Y.

Determine required daily work area size using 4' deep work area
765 C.Y. (27 C.F./C.Y.) ÷ 4' Depth = 5164 S.F.

Area fill method of landfilling requires 6" compacted cover at the end of each day. Experience has shown volume of compacted soil to be approximately 80% of loose fill volume.

∴ Compacted 6" layer of cover will require placement of 7.5" of soil -6"
(1.25) = 7.5".

Determine Daily Cover Required = 5164 S.F. (7.5"/12")/27 C.F./C.Y.
= 120 C.Y./Day.

Determine factor for trash to dirt ratio

$$\frac{765 \text{ C.Y. Trash} + 120 \text{ C.Y. Cover}}{765 \text{ C.Y. Trash} - 120 \text{ C.Y. Cover}} = 1.16$$

Total Available Fill Volume = 1,391,430 C.Y.

$$\therefore \text{Life} = 1,391,430 \text{ C.Y.} \div \{(656 \text{ C.Y./Day})(365 \text{ Days/Yr})(1.16)\}$$
$$= 5 \text{ Years.}$$

= 5.02 yrs ✓

Determine Available Cover Material:

From Proposed Borrow Area = 117,925 C.Y.

From Excavating 2' of Existing Cover =
36.5 AC. (43,560 S.F./AC)(2')/27 C.F./C.Y. = 117,773 C.Y. *ok*

Total Cover = 117,925 + 117,773 = 235,698 C.Y.

$$\therefore \text{Life} = 235,698 \text{ C.Y.} \div \{(120 \text{ C.Y./Day})(6 \text{ Days/Wk})(52 \text{ Wks/Yr.})\}$$
$$= 6.3 \text{ Years.}$$

ok.

EQUIPMENT

The County presently uses a Rex 350 Compactor and a D6H Caterpillar Dozer for placement of refuse. They have 1-615 Caterpillar pan for moving cover material and are discussing the addition of another pan in the future. At this time the equipment is sufficient for the operation.

PROJECTED USE OF LAND AFTER COMPLETION OF PROJECT

The projected use of the landfill after completion is undetermined at this time.

Will R. Sullivan (S. L. F.)
 Co. Mgr.
 Box 227
 Goldboro 27530
 919 731-1435

Municipality
 P O Box 97
 Garner 27529
 919-772-5393

PERMIT APPLICATION TRACKING SYSTEM
 SOLID WASTE MANAGEMENT FACILITY

GENERAL INFORMATION
 APPLICANT Co. of Wayne TYPE OF FACILITY S. L. F.
 TYPE OF WASTE MSW TYPE OF APPLICATION Consentment to Permit #96-01
 LOCATION OF FACILITY S.R. 1129
 PERMITTING PROCESS
 PRELIMINARY SITING ASSISTANCE, TYPE DLF's w/ > Syr. capacity DATE _____

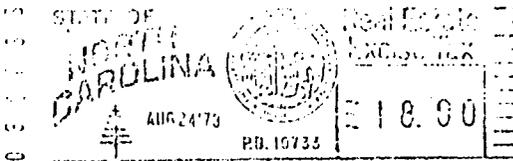
APPLICATION	APPLICATION RECEIVED	COMPLETENESS REVIEW, LETTER SENT	ADDITIONAL INFORMATION RECEIVED	NRCDCOMMENTS RECEIVED		TECHNICAL REVIEW LETTER SENT	ADDITIONAL INFORMATION RECEIVED
				SENT	RECEIVED		
SITE PLAN							
SITE SUITABILITY ACTION TAKEN: ACTIVITY _____ (DEM) DATE _____							
CONSTRUCTION PLAN		Letters sent 12/6/89 M	1/23/90	1/22/90	1/23/90	1/23/90	1/23/90
PERMIT ACTION TAKEN:	ACTIVITY	Issued Permit					(LQ) DATE 5/8/90
	PERMIT NO.	96-0					

PERTINENT ACTIVITY

DATE	TYPE OF ACTIVITY	COMMENTS
12-8	Talked to LG, told to wait on review.	
2-15	Sent letter to Bill Young in file and Barnes Allen.	
2-16	Talked w/ Jeff Bechler - used computer program to check borrow calc. in borrow area.	

NORTH CAROLINA

WAYNE COUNTY



THIS DEED, made and entered into this the 23rd day of August, 1973, by and between WELLS DEVELOPMENT & CONSTRUCTION CO., a North Carolina Corporation, party of the first part and the County of Wayne, a body politic and corporate, party of the second part;

WITNESSETH:

That the said party of the first part, for and in consideration of the sum of TEN DOLLARS (\$10.00) and other good and valuable considerations to it in hand paid, the receipt of which is hereby acknowledged, has bargained and sold, and by these presents does hereby bargain, sell and convey unto the party of the second part, its successors and assigns, that certain tract or parcel of land lying and being in Brogden Township, Wayne County, North Carolina, and being more particularly described as follows:

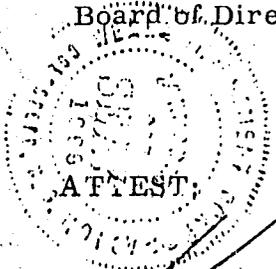
BEGINNING at an iron stake in the centerline of an old road, said iron stake being Leroy Nathan Langston's most Northwestern property corner; thence from the beginning leaving the said old road with Leroy Nathan Langston's most Western property line, S. 3-29 W. 13.00 feet to a concrete monument; thence continuing with said line, S. 3-29 W. 67.37 feet to an iron stake in the centerline of N. C. Secondary Road No. 1129; thence leaving said road center with Leroy Nathan Langston's line, S. 3-29 W. 34.60 feet to a concrete monument; thence continuing with Leroy Nathan Langston's line, S. 3-29 W. 658.31 feet to an iron stake; thence continuing and with said line, S. 3-29 W. 1,071.60 feet to an iron stake; thence continuing and with said line, S. 3-29 W. 562.85 feet to an iron stake; thence continuing and with said line, S. 3-29 W. 315.04 feet to an iron stake; thence continuing and with Leroy Nathan Langston's line, S. 3-29 W. 450.44 feet to an iron stake on the Northern bank of Yellow Marsh; thence continuing S. 3-29 W. 11.00 feet to a point in the centerline of Yellow Marsh, Leroy Nathan Langston's most Southwestern property corner; thence with the center of Yellow Marsh (the line) the following bearings and distances: N. 60-28 W. 128.12 feet, S. 83-47 W. 65.92 feet, N. 56-26 W. 97.89 feet, N. 48-09 W. 75.28 feet, N. 88-19 W. 31.01 feet, N. 25-16 W. 29.73 feet, N. 54-42 W. 58.46 feet, N. 16-29 W. 33.42 feet, N. 49-29 W. 48.38 feet, S. 64-05 W. 72.05 feet, S. 41-13 W. 19.06 feet to a point in the centerline of Yellow Marsh, D. M. Prince heirs most Southeastern property corner; thence leaving Yellow Marsh with D. M. Prince heirs line, N. 4-19' 30" E. 14.50 feet to a marked black gum; thence continuing N. 4-19' 30" E. 4.50 feet to an iron stake; thence continuing and with D. M. Prince heirs line,

N. 4-19' 30" E. 712.98 feet to an iron stake; thence continuing and with said line, N. 4-19' 30" E. 972.23 feet to an iron stake; thence continuing and with said line, N. 4-19' 30" E. 963.16 feet to a concrete monument; thence continuing and with said line, N. 4-19' 30" E. 42.85 feet to an iron stake in the centerline of N. C. Secondary Road No. 1129; thence continuing and with D. M. Prince heirs line, N. 4-19' 30" E. 151.06 feet to a concrete monument; thence continuing N. 4-19' 30" E. 7.00 feet to an iron stake in the center of an old road; thence with the centerline of the said old road, N. 86-14 E. 300.47 feet to an iron stake; thence continuing with the center of the said old road, N. 74-05 E. 215.50 feet to an iron stake in the centerline of the said old road, Leroy Nathan Langston's most Northwestern property corner, the point of beginning, containing 35.23 acres more or less excluding the right of way of N. C. Secondary Road No. 1129 and including an easement to Carolina Power & Light Company. And being the same property conveyed to Gertrude Prince Hood by deed dated April 9, 1942, and recorded in the Wayne County Registry in Book 277, at Page 146.

TO HAVE AND TO HOLD the aforesaid tract or parcel of land, together with all privileges and appurtenances thereunto belonging unto the said party of the second part, its successors and assigns, in fee simple absolute forever.

And the said party of the first part, for itself, its successors and assigns, covenants to and with the party of the second part, its successors and assigns, that it is seized of said premises in fee and has a right to convey the same in fee simple; that the same is free and clear from all encumbrances; and that it will warrant and defend the same from the lawful claims of all persons whomsoever.

IN TESTIMONY WHEREOF, the said party of the first part has caused this instrument to be signed in its corporate name by its President and attested by its Secretary, and the corporate seal affixed hereto, all by order of the Board of Directors, the day and year first above written.



[Signature]
SECRETARY

WELLS DEVELOPMENT & CONSTRUCTION CO.
BY: *[Signature]*
PRESIDENT