



FACILITY COMPLIANCE AUDIT REPORT
Division of Waste Management
Solid Waste Section

UNIT TYPE: (check all that apply to this audit with same Permit number)											
Lined MSWLF		LCID		YW		Transfer		Compost		SLAS	COUNTY: Stokes PERMIT NO.: 85-03 FILE TYPE: COMPLIANCE
Closed MSWLF		HHW		White goods		Incin		T&P		FIRM	
CDLF		Tire T&P / Collection		Tire Monofill		Industrial Landfill	<input checked="" type="checkbox"/>	DEMO		SDTF	

Date of Audit: 06/02/04.Date of Last Audit: 11/05/03**FACILITY NAME AND ADDRESS:**

Duke Power Company
 Belews Creek Steam Station Ash Landfill
 3195 Pine Hall Road
 Belews Creek, North Carolina 27009

FACILITY CONTACT NAME AND PHONE NUMBER:

Allen Stowe, Scientist 704-382-4309 (Charlotte)
 Randy Price, Environmental Scientist 336-445-0324 (Belews Creek)

FACILITY CONTACT ADDRESS (IF DIFFERENT):

SAME

AUDIT PARTICIPANTS:

Allen Stowe, Duke Energy
 Randy Price, Duke Power, Belews Creek
 Larry Harper, Duke Energy
 Hugh Jernigan, Solid Waste Section

STATUS OF PERMIT:

Permit Issued - December 30, 2002 – Permit to Operate Phase 1, Area 1 Expansion.
 Permit Modified – January 29, 2003 – Add Permit to Operate Phase 2, Area 1.
 Permit Expires – January 29, 2008

PURPOSE OF AUDIT:

Comprehensive Audit

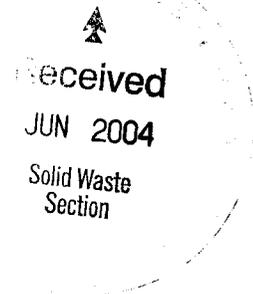
NOTICE OF VIOLATION(S) (citation and explanation):

None

You are hereby advised that, pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$5,000 per day may be assessed for each violation of the Solid Waste Statute or Regulations. If the violation(s) noted here continue, you may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

STATUS OF PAST NOTED VIOLATIONS (List all noted last audit):

None

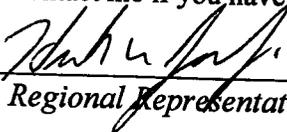


FACILITY COMPLIANCE AUDIT REPORT
Division of Waste Management
Solid Waste Section

OTHER COMMENTS /SUGGESTIONS:

1. The facility has been utilized for the disposal of flyash generated by the Belews Creek Steam Station.
2. The landfill is near permitted contours and is not accepting flyash for disposal. The landfill effectively ceased receiving flyash in February, 2004.
3. The flyash from the Belews Creek Steam Station is now being utilized as structural fill on the Duke Power Belews Creek facility as per the Letter of Notification of a Coal Combustion By-Products Structural Fill, dated May 8, 2003. The 20+ acre structural fill project has been reviewed and approved by the Solid Waste Section (See June 18, 2003 letter, attached).
4. Currently intermediate soil cover is being placed in Area 1, Phase 2 of the landfill, slope drains are being installed, and some temporary seeding of the intermediate areas has been conducted.
5. Soil is being borrowed from an area adjacent to the landfill. Allen Stowe is to contact the Solid Waste Section Permitting on possible issues regarding the borrow site and removal of monitoring wells.
6. Surface waters from the active landfill areas are directed to primary and secondary sedimentation basins before being discharged into a NPDES permitted ash basin.
7. Vegetative cover has been established over previously completed areas of the landfill. An enhanced cap is required over Area 1, Phase 1 & 2 landfill areas.
8. Semi-annual monitoring being conducted in accordance with the approved monitoring plan.
9. Observed the Structural Fill site.
10. Duke Energy is proceeding with a site suitability study for a proposed new flyash landfill located on the Duke Power, Belews Creek property. The site suitability application is expected to be submitted within 30 days.

Please contact me if you have any questions or concerns regarding this audit report.

 (signature) Phone: 336-771-4608 ext. 206
Regional Representative

Distribution: original signed copy to facility -- signed copy to compliance officer -- e-mail or copy to super

Delivered on : <u>06/03/04</u> by		hand delivery	X	US Mail		Certified No. []
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CC: Mark Poindexter
 Brent Rockett
 Ellen Lorscheider

North Carolina
Department of Environment and Natural Resources

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director



RECEIVED
N.C. Dept. of ENR

JUN 24 2003

Winston-Salem
Regional Office

June 18, 2003

Mr. Allen Stowe
Duke Energy Corporation
PO Box 1006
Charlotte, North Carolina 28201-1006

Subject: 30 April 2003 Letter of Notification of the Proposed 20+/- Acre Coal Combustion By- Products (CCBP's) Structural Fill and Revised 11 June 2003 Letter to be Located on SR 1908 in Stokes County. The Project is Planned to Begin Approximately July 2002 with an Estimated Completion Date of June 2007.

Dear Mr. Stowe:

Your subject letter of notification was received by the Division of Waste Management on 8 May 2003. Please refer to Rule .1702 which states that a solid waste management permit is not required for coal combustion by-products structural fills which meet the requirements listed in this section. Instead, the Division issues Letters of Acknowledgment informing the Notifier the submitted information indicates that the project will comply with the .1700 Rules when constructed as proposed.

The information, submitted by Shield Engineering, Inc. on your behalf, along with the subject Notification has been reviewed and has been found to indicate that the proposed fill satisfies the .1700 Rules. However, please note Rule .1706(d). Prior to placing any ash in the site, you should retain a registered NC professional engineer who can certify at the completion of the project that all requirements of the rules of this section have been met. This, of course, requires that he have knowledge of the site prior to the placement of any ash, which includes confirmation that the coal ash footprint is excavated no deeper than twelve inches from original grade. Likewise, he must observe the progress during construction so that he can stamp and submit a certifying report after closure stating that all of the .1700 Rules have been satisfied.

1646 Mail Service Center, Raleigh, North Carolina 27699-1646

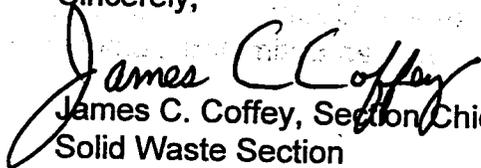
Phone: 919-733-0692 \ FAX: 919-733-4810 \ Internet: www.enr.state.nc.us

AN EQUAL OPPORTUNITY \ AFFIRMATIVE ACTION EMPLOYER - 50% RECYCLED / 10% POST CONSUMER PAPER

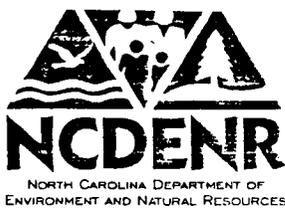
Please be aware that analysis of groundwater samples collected from monitoring wells located at a North Carolina coal ash structural fill site revealed that levels of sulfate and arsenic were elevated above the background well values and exceeded the 15A NCAC 2L Standards. It was later found that **the ash had been placed in the groundwater at this site** and the ash has been subsequently removed. The Division of Waste Management strongly recommends that you retain the services of a qualified hydrogeologic consulting firm to assist you in determining the vulnerability of the groundwater at your site based on site attenuation, waste extractability and end use to inhibit infiltration. Depending on vulnerability, you can then consider installation of groundwater monitoring wells before commencing fill operations.

A copy of this letter is being faxed to your office and a hard copy is being mailed under separate cover. If you have any questions, please contact Jim Barber at (919)-733-0692, extension 255 or Elizabeth Stewart at extension 346.

Sincerely,


James C. Coffey, Section Chief
Solid Waste Section

cc: Jim Barber
Hugh Jernigan
Tim Jewett
Brent Rockett
Mark Poindexter
Elizabeth Stewart
Raleigh Central file: Stokes County, Coal ash fill



FACILITY COMPLIANCE AUDIT REPORT
Division of Waste Management
Solid Waste Section

01

UNIT TYPE: (check all that apply to this audit with same Permit number)

Lined MSWLF	LCID	YW	Transfer	Compost	SLAS	COUNTY: Stokes PERMIT NO.: 85-03 FILE TYPE: COMPLIANCE
Closed MSWLF	HIW	White goods	Incin	T&P	FIRM	
CDLF	Tire T&P / Collection	Tire Monofill	Industrial Landfill	<input checked="" type="checkbox"/> DEMO	SDTF	

Date of Audit: 11/05/03

Date of Last Audit: 12/04/02

FACILITY NAME AND ADDRESS:

Duke Power Company
 Belews Creek Steam Station Ash Landfill
 3195 Pine Hall Road
 Belews Creek, North Carolina 27009

FACILITY CONTACT NAME AND PHONE NUMBER:

Allen Stowe, Scientist 704-382-4309 (Charlotte)
 Randy Price, Environmental Scientist 336-445-0324 (Belews Creek)

FACILITY CONTACT ADDRESS (IF DIFFERENT):

SAME

AUDIT PARTICIPANTS:

Bill Miller, Duke Power
 Hugh Jernigan, Solid Waste Section
 Ellen Lorscheider, Solid Waste Section

STATUS OF PERMIT:

Issued December 30, 2002 – Permit to Operate Phase 1, Area 1 expansion

PURPOSE OF AUDIT:

Comprehensive Audit



NOTICE OF VIOLATION(S) (citation and explanation):

None

You are hereby advised that, pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$5,000 per day may be assessed for each violation of the Solid Waste Statute or Regulations. If the violation(s) noted here continue, you may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

STATUS OF PAST NOTED VIOLATIONS (List all noted last audit):

None

OTHER COMMENTS /SUGGESTIONS:

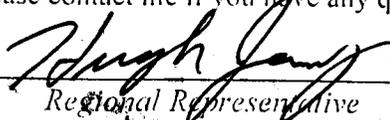
1. The facility is utilized for the disposal of flyash generated by the Belews Creek Steam Station.
2. Flyash generated by the facility is also sold to the concrete industry and is diverted from disposal.

Division of Waste Management
Solid Waste Section

Page 2 of 2

3. Surface waters from the active landfill areas are directed to primary and secondary sedimentation basins before being discharged into a NPDES permitted ash basin.
4. Some areas of erosion noted near the primary sedimentation basin.
5. Vegetative cover has been established over the completed areas of the landfill. Final cover, construction of slope drains and preparation for seeding is being conducted in areas addressed by the closure plan.
6. Semi-annual monitoring being conducted in accordance with monitoring plan, also conducting special studies monitoring.

Please contact me if you have any questions or concerns regarding this audit report.

 (signature) Phone: 336-771-4608 ext. 206
Regional Representative

Distribution: original signed copy to facility -- signed copy to compliance officer -- e-mail or copy to super

Delivered on 5/1 5/03 by		hand delivery	<input checked="" type="checkbox"/>	US Mail		Certified No. []
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CC: Mark Poindexter
Brent Rockett



FACILITY COMPLIANCE AUDIT REPORT
 Division of Waste Management
 Solid Waste Section

UNIT TYPE (check all that apply to this audit with same permit number)										COUNTY SIKES		
Lined MSWLF		LCID		YW		Transfer		Compost		SLAS		PERMIT NO. 85-03
Closed MSWLF		HHW		White goods		Incin		T&P		FIRM		FILE TYPE COMPLIANCE
CDLF		Tire T&P / Collection		Tire Monofill		Industrial Landfill	X	DEMO		SDTF		

Date of Audit: 12/04/02.

Date of Last Audit: 09/23/02

FACILITY NAME AND ADDRESS:

Duke Power Company
 Belews Creek Steam Station Ash Landfill
 3195 Pine Hall Road
 Belews Creek, North Carolina 27009

FACILITY CONTACT NAME AND PHONE NUMBER:

Allen Stowe, Scientist 704-382-4309 (Charlotte)
 Randy Price, Environmental Scientist 336-445-0324 (Belews Creek)

FACILITY CONTACT ADDRESS (IF DIFFERENT):

SAME

AUDIT PARTICIPANTS:

Randy Price, Duke Power
 Hugh Jernigan, Solid Waste Section

STATUS OF PERMIT:

Issued 12/10/84 Application for Area 1 under review

PURPOSE OF AUDIT:

Comprehensive Audit

NOTICE OF VIOLATION(S) (citation and explanation):

None

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STATUS OF PAST NOTED VIOLATIONS (List all noted last audit):

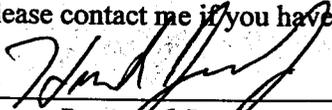
None

OTHER COMMENTS /SUGGESTIONS:

1. The facility is utilized for the disposal of flyash generated by the Belews Creek Steam Station.
2. Approximately 273,660 tons of flyash was disposed at the site for the period July, 2001- June 2002. Flyash generated by the facility is also sold to the concrete industry and is diverted from disposal.

3. Surface waters from the active landfill areas are directed to primary and secondary sedimentation basins before being discharged into a NPDES permitted ash basin.
4. A closure plan was submitted to the Solid Waste Section on July 30, 2002 for closure of the current operational area.
5. Vegetative cover has been established over the completed areas of the landfill. Final cover, construction of slope drains and preparation for seeding is being conducted in areas addressed by the closure plan.
6. The landfill is scheduled to close January 1, 2003, as per letter dated December 23, 1999 from the Solid Waste Section to Duke Power.
7. A permit application has been submitted for the new Area 1 of the ash landfill and is currently under review.

Please contact me if you have any questions or concerns regarding this audit report.

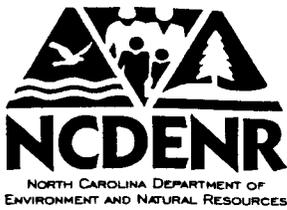

Regional Representative

(signature) Phone: 336-771-4608 ext. 206

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CC: Mark Poindexter
Brent Rockett



FACILITY COMPLIANCE AUDIT REPORT
Division of Waste Management
Solid Waste Section



UNIT TYPE: (check all that apply to this audit with same Permit number)										
Lined MSWLF	LCID	YW	Transfer	Compost	SLAS	COUNTY: Stokes				
Closed MSWLF	HHW	White goods	Incin	T&P	FIRM	PERMIT NO.: 85-03				
CDLF	Tire T&P / Collection	Tire Monofill	Industrial Landfill	<input checked="" type="checkbox"/>	DEMO	SDTF	FILE TYPE: COMPLIANCE			

Date of Audit: 09/23/02.

Date of Last Audit: 06/06/02.

FACILITY NAME AND ADDRESS:

Duke Power Company
 Belews Creek Steam Station Ash Landfill
 3195 Pine Hall Road
 Belews Creek, North Carolina 27009

09/23/02
 11:17 AM
 RECEIVED
 SOLID WASTE SECTION
 10/1/02

FACILITY CONTACT NAME AND PHONE NUMBER:

Allen Stowe, Scientist 704-382-4309 (Charlotte)
 Randy Price, Environmental Scientist 336-445-0324 (Belews Creek)

FACILITY CONTACT ADDRESS (IF DIFFERENT):

SAME

AUDIT PARTICIPANTS:

Allen Stowe, Duke Power
 Tim Jewett, Solid Waste Section
 Hugh Jernigan, Solid Waste Section

STATUS OF PERMIT:

Issued 12/10/84 Application for Area 1 under review

PURPOSE OF AUDIT:

Comprehensive Audit

NOTICE OF VIOLATION(S) (citation and explanation):

None

You are hereby advised that, pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$5,000 per day may be assessed for each violation of the Solid Waste Statute or Regulations. If the violation(s) noted here continue, you may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

STATUS OF PAST NOTED VIOLATIONS (List all noted last audit):

None

OTHER COMMENTS /SUGGESTIONS:

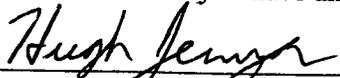
1. The facility is utilized for the disposal of flyash generated by the Belews Creek Steam Station.
2. Approximately 273,660 tons of flyash was disposed at the site for the period July, 2001- June 2002. Flyash generated by the facility is also sold to the concrete industry and is diverted from disposal.
3. The landfill disposal sequence is from a westerly to easterly direction towards sedimentation control features.

Division of Waste Management
Solid Waste Section

Page 2 of 2

4. Surface waters from the active landfill areas are directed to primary and secondary sedimentation basins before being discharged into a NPDES permitted ash basin.
5. Vegetative cover has been established over the completed areas of the landfill. Additional areas which have reached permitted elevations are being prepared for final soil cover and seeding. Approximately 3 to 4 acres is currently in the process of applying final cover
6. Trees have been removed from side slopes of the landfill as per suggestion from previous inspections.
7. Last semiannual groundwater monitoring event occurred April 2002.
8. The landfill is scheduled to close January 1, 2003, as per letter dated December 23, 1999 from the Solid Waste Section to Duke Power.
9. A closure plan for the landfill dated July 30, 2002 has been submitted to the Solid Waste Section to close the current operational area.
10. A permit application has been submitted for the new Area 1 of the ash landfill.

Please contact me if you have any questions or concerns regarding this audit report.


Regional Representative

(signature) Phone: 336-771-4608 ext. 206

Distribution: original signed copy to facility -- signed copy to compliance officer -- e-mail or copy to super

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CC: Compliance Officer/Central files
Brent Rockett
Allen Stowe



FACILITY COMPLIANCE AUDIT REPORT
Division of Waste Management
Solid Waste Section



UNIT TYPE: (check all that apply to this audit with same Permit number)											
Lined MSWLF		LCID		YW		Transfer		Compost		SLAS	COUNTY: Stokes PERMIT NO.: 85-03 FILE TYPE: COMPLIANCE
Closed MSWLF		HHW		White goods		Inciner		T&P		FIRM	
CDLF		Tire T&P / Collection		Tire Monofill		Industrial Landfill	<input checked="" type="checkbox"/>	DEMO		SDTF	

Date of Audit: 06/06/02.

Date of Last Audit: 05/15/01

FACILITY NAME AND ADDRESS:

Duke Power Company
 Belews Creek Steam Station Ash Landfill
 3195 Pine Hall Road
 Belews Creek, North Carolina 27009

FACILITY CONTACT NAME AND PHONE NUMBER:

Randy Price, Environmental Scientist 336-445-0324

FACILITY CONTACT ADDRESS (IF DIFFERENT):

SAME

AUDIT PARTICIPANTS:

Randy Price, Duke Power
 Allen Stowe, Duke Power
 Larry Harper, Duke Power
 Hugh Jernigan, Solid Waste Section

STATUS OF PERMIT:

Issued 12/10/84

PURPOSE OF AUDIT:

Comprehensive Audit

NOTICE OF VIOLATION(S) (citation and explanation):

None

You are hereby advised that, pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$5,000 per day may be assessed for each violation of the Solid Waste Statute or Regulations. If the violation(s) noted here continue, you may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

STATUS OF PAST NOTED VIOLATIONS (List all noted last audit):

None

OTHER COMMENTS /SUGGESTIONS:

1. The facility is utilized for the disposal of flyash generated by the Belews Creek Steam Station.
2. Approximately 140,000-150,000 tons of flyash is disposed annually at the site. An additional approximate 500,000 tons of flyash generated by the facility is sold to the concrete industry and is diverted from disposal.
3. The landfill disposal sequence is from a northwest to southeast direction towards sedimentation control features.

**Division of Waste Management
Solid Waste Section**

4. Surface waters from the active landfill areas are directed to primary and secondary sedimentation basins before being discharged into a NPDES permitted ash basin.
5. Excellent vegetative cover over the completed areas of the landfill. An additional area which has reached permitted elevation is being prepared for final soil cover and seeding.
6. Trees have been removed from side slopes of the landfill as per suggestion from previous inspection.
7. Last semiannual groundwater monitoring event occurred April 2002.
8. The landfill is scheduled to close January 1, 2003, as per letter dated December 23, 1999 from the Solid Waste Section to Duke Power.
9. A closure plan for the landfill is to be submitted by **July 31, 2002**.
10. A permit application is being prepared for submittal for Area 1 of the ash landfill.

Please contact me if you have any questions or concerns regarding this audit report.

Hugh Jennigan (signature) Phone: 336-771-4608 ext. 206
Regional Representative

Distribution: original signed copy to facility -- signed copy to compliance officer -- e-mail or copy to super

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CC: Central files
Brent Rockett
Allen Stowe



LANDFILL AUDIT REPORT

Facility Information: Duke Power Belews Creek Steam Station Ash Landfill
3195 Pine Hall Road
Belews Creek, NC 27009
Stokes County
Permit No. 85-03

Facility Contact: Ron Lewis
Duke Energy Company
P. O. Box 1006
Mail code EC12A
Charlotte, NC 28201-0006
Phone No. (704) 373-5718

Facility Description and Permit Status:

The facility is an Industrial Landfill utilized for the disposal of flyash generated by the Duke Power Belews Creek Steam Station. As proposed in the facility Transition Plan, the landfill shall stop receiving waste on or before January 1, 2003.

Inspection Participants: Ron Lewis: Duke Energy Company
Randy Price: Duke Power Company
Hugh Jernigan: NC Solid Waste Section

Date of Inspection: May 15, 2001

Violations Noted: None

Comment/Suggestions:

1. The Belews Creek Steam station produces approximately 500,000 tons/year of flyash from the coal-fired power plant. Approximately 100,000-150,000 tons/year is landfilled; the remainder is utilized by the concrete industry.
2. Surface waters from the active landfill areas are directed to primary and secondary sedimentation basins before being discharged to the NPDES permitted ash basin.
3. Excellent vegetative cover has been established over landfill areas that have reached final elevations. Current procedures are to progress landfilling operations from a northwest to southeast towards sedimentation control features. As the final elevations are reached, utilizing surveyed grade markers, final soil cover is applied and seeding is conducted. It is recommended that these procedures continue.
4. A final closure plan should be submitted at least 180 days prior to commencement of closure activities for approval by the Solid Waste Section.
5. During the inspection the Industrial Waste Landfill Reduction Plan update for Belews Creek Landfill, dated June 21, 2000, was reviewed.

cc: Phil Prete, Field Operations Branch
Brent Rockett, Western Area Supervisor

NC DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES

Division of Solid Waste Management

Solid Waste Section

SOLID WASTE MANAGEMENT FACILITY EVALUATION REPORT

Type of Facility Ash Landfill Permit # 85-03 County Stokes

Name of Facility Belews Creek Steam Station Ash Landfill Location SR 1908

Date of Last Evaluation 11/9/98

I. Permit Conditions Followed Yes No N/A

A. Specific Condition(s) Violated

II. Operational Requirements Followed Yes No

15A N.C. Admin. Code 138 Section 0505

A. Specific Violation(s) by number and letter.

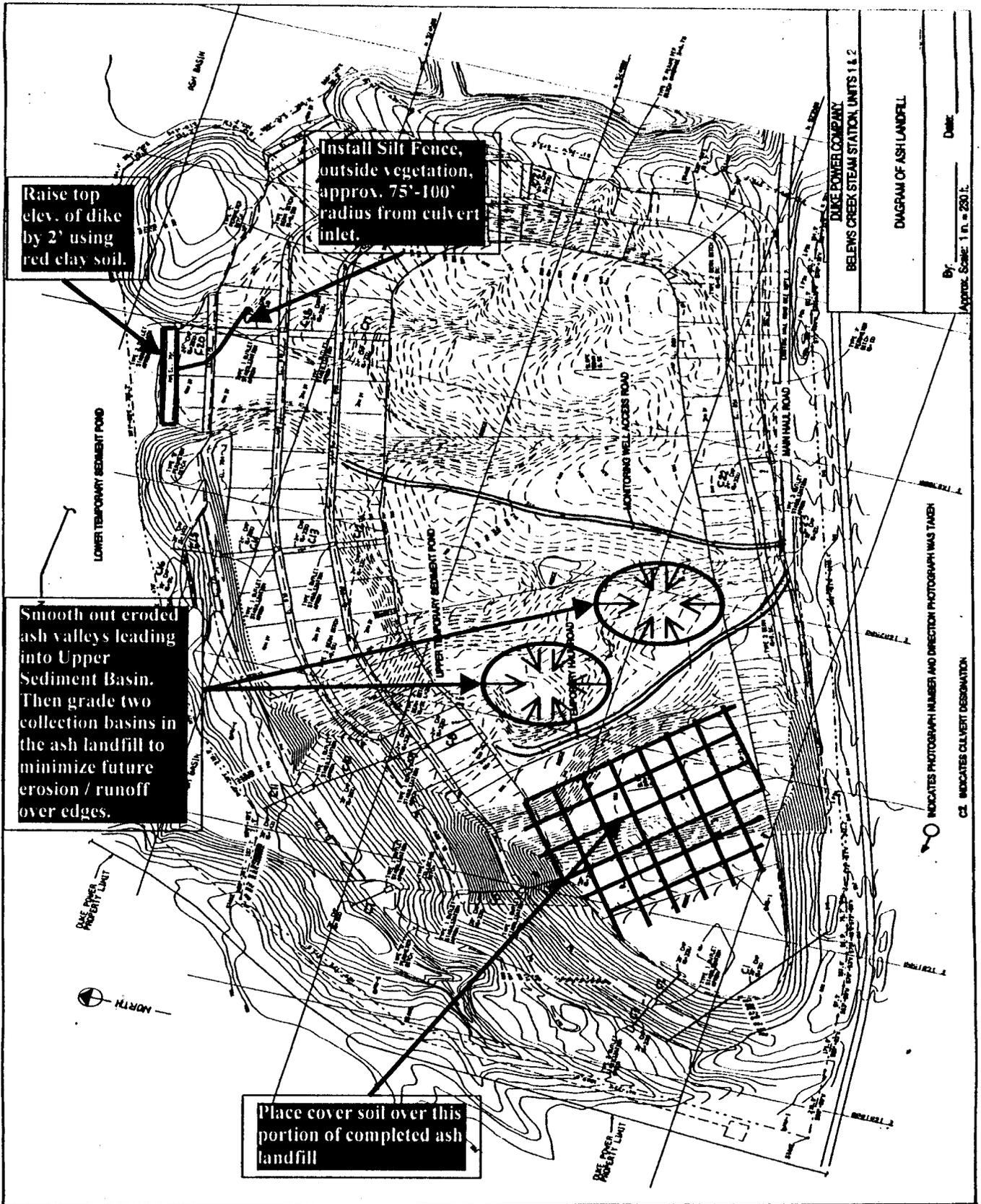
III. Other Violations of Rule or Law

IV. Evaluator's Comments Approximately 4 acres completed on top at Eastern portion of Landfill. Soil cover being placed - to be seeded. Adequate erosion control measures. Dike at lower temp. sediment pond raised in elevation

V. Continuation Page Required? Yes No Receiving Signature Ally Stone

Evaluation Date 6/24/99 Solid Waste Section Hahn

Diagram of BCSS Ash Landfill Addressing NCDEHNR's 11/9/98 Inspection Concerns





70135

NC DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES
Division of Solid Waste Management
Solid Waste Section

SOLID WASTE MANAGEMENT FACILITY EVALUATION REPORT

Type of Facility Ash Mound 1 Permit # 85-03 County Stokes

Name of Facility Duke Power Belows Creek Steam Station Location SR 1900
Ash Landfill

Date of Last Evaluation _____

I. Permit Conditions Followed Yes No N/A

A. Specific Condition(s) Violated _____

II. Operational Requirements Followed Yes No

15A N.C. Admin. Code 138 Section _____

A. Specific Violation(s) by number and letter.

III. Other Violations of Rule or Law _____

IV. Evaluator's Comments Vegetative cover established over completed areas. No off-site
sedimentation observed. Large area of open ash disposal -> all drainage from
open areas directed to ⁽²⁾ sedimentation basins in series. Secondary basin nearly full, collected
capacity -> will need to be cleaned before overflow occurs

V. Continuation Page Required? Yes No Receiving Signature Larry L. Fincher

Evaluation Date 11/7/98 Solid Waste Section [Signature]

J

PO135

NC DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES

Division of Solid Waste Management

Solid Waste Section

SOLID WASTE MANAGEMENT FACILITY EVALUATION REPORT

Type of Facility Fly Ash Landfill Permit # 85-03 County Stokes

Name of Facility Duke Power Landfill Location Pine Hall Road
Duke Belows Creek
Power Station

Date of Last Evaluation _____

I. Permit Conditions Followed Yes No N/A

A. Specific Condition(s) Violated _____

II. Operational Requirements Followed Yes No

15A N.C. Admin. Code 138 Section _____

A. Specific Violation(s) by number and letter. _____

III. Other Violations of Rule or Law _____

IV. Evaluator's Comments No erosion / sedimentative problems on completed areas.
Good vegetative cover on completed areas. Note: 38,944.06 tons
of flyash landfilled since August, 1995. Site in good condition.

V. Continuation Page Required? Yes No Receiving Signature [Signature]

Evaluation Date Feb 8, 1996 Solid Waste Section [Signature]

NC DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES

Division of Solid Waste Management

Solid Waste Section

SOLID WASTE MANAGEMENT FACILITY EVALUATION REPORT

IV
70135

Type of Facility Ash Manof:l Permit # 85-03 County Stokes

Name of Facility Duke Power-Belows Creek Steam Station Ash Landf. II Location SR 1908

Date of Last Evaluation _____

I. Permit Conditions Followed Yes No N/A

A. Specific Condition(s) Violated _____

Note: Operating as per plans subm Hcd 8/94

II. Operational Requirements Followed Yes No

15A N.C. Admin. Code 13B Section _____

A. Specific Violation(s) by number and letter.

III. Other Violations of Rule or Law _____

IV. Evaluator's Comments Ash being landfilled in last year has been greatly reduced.

Vegetative cover established on completed areas; no erosive problems observed
→ Note Sign needed at secondary entrance if to remain open ←

V. Continuation Page Required? Yes No Receiving Signature [Signature]

Evaluation Date 6/20/95 Solid Waste Section [Signature]

Purpose: G.S. 130A-294 requires that an evaluation program be established for the operation of solid waste management facilities on a statewide basis. The Solid Waste Management Act and Solid Waste Management Rules codified at 15A NCAC 13B list requirements which must be followed by solid waste facilities.

Instructions: Solid Waste Section personnel shall complete the evaluation form each time they conduct official evaluations. The form shall be signed by the person(s) receiving the report.

Distribution: Part I White: facility copy
Part II Canary: Raleigh central office file copy
Part III Pink: Regional office file copy

Disposition: This form may be retained in accordance with the Record Retention and Disposition Schedule of the Solid Waste Section, Solid Waste Management Division of the Department of Environment, Health and Natural Resources.



NC DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES

Division of Solid Waste Management

Solid Waste Section

SOLID WASTE MANAGEMENT FACILITY EVALUATION REPORT

Type of Facility Ash Manof:1 Permit # 85-03 County Stokes

Name of Facility Duke Power - Belews Creek Steam Station Ash Landfill Location SR 1908

Date of Last Evaluation 8/10/93

I. Permit Conditions Followed Yes No N/A

A. Specific Condition(s) Violated

Permit 85-03 Issued in 1984 - Modifications to permit will be required

II. Operational Requirements Followed Yes No

15A N.C. Admin. Code 138 Section _____

A. Specific Violation(s) by number and letter.

III. Other Violations of Rule or Law

IV. Evaluator's Comments Detailed plans, including 5 year phasing, and revised operational plans due for permit amendments.

* Note: Received revised operational plans, and detailed landfill drawings for information only.

V. Continuation Page Required? Yes No Receiving Signature Mailed

Evaluation Date 6/29/94 Solid Waste Section [Signature]

NC DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES

Division of Solid Waste Management

Solid Waste Section

SOLID WASTE MANAGEMENT FACILITY EVALUATION REPORT

Type of Facility Ash Man. 11 Permit # 8503 County Stok

Name of Facility Duke Power Seaboard 11 Location SR

Date of Last Evaluation 7/23/91



I. Permit Conditions Followed Yes No N/A

A. Specific Condition(s) Violated

Some changes from originally submitted plans of construction.
All other permit conditions followed

① - see comments below

II. Operational Requirements Followed Yes No

15A N.C. Admin. Code 138 Section .0505

A. Specific Violation(s) by number and letter.

* 4(b) Adequate erosion control measures shall be practiced to prevent
excessive erosion.

* 6(b) Temporary seeding will be utilized as necessary to stabilize
site

* Both 4(b) and 6(b) minor problems

III. Other Violations of Rule or Law

IV. Evaluator's Comments ① Detailed "as is" plans and final contour
plans due within 6 weeks to clarify areas of concern. No permit
modification required. Incidental changes with permitted site.

V. Continuation Page Required? Yes No Receiving Signature Joseph David White

Evaluation Date 8/10/93 Solid Waste Section [Signature]

||
Duke Power Company
Wachovia Center
P.O. Box 1007
Charlotte, N.C. 28201-1007

85-03
I+C
stamp



DUKE POWER

November 27, 1992

Should be
Feb. 27, 1992

Jeff Rogers
North Carolina Solid Waste Management Division
Winston-Salem Regional Office
310 East Third Street Suite 200
Winston-Salem, N.C. 27106

SUBJECT: Belews Creek Steam Station Ash Landfill (85-03)
Sanitary Landfill Annual Report
File: GS - 707.25

Dear Mr. Rogers:

Please find attached the completed Sanitary Landfill Annual Report form for the Belews Creek Ash Landfill (85-03) for the past report period (7/1/90 - 6/30/91). Please note that the tonnage data provided on the report are actual weights.

If you have any questions, please contact me at 704-373-2647.

Larry D. Evans

Larry D. Evans, Scientist
Environmental Protection

LDE/A29213

Attachment

DDDD-0000011
Solid Waste Section
(Version 10/90)

State of North Carolina

Department of Environment, Health, and Natural Resources
Division of Solid Waste Management and Office of Waste Reduction
P.O. Box 27687 Raleigh, North Carolina 27611

SANITARY LANDFILL ANNUAL REPORT

FOR THE PERIOD OF JULY 1, 1990 - JUNE 30, 1991

Solid waste disposal facilities are a vital part of the North Carolina infrastructure to manage solid waste. This report gathers information about solid waste facilities in the state.

Separate surveys have been sent to all counties and cities to gather information about other components of solid waste management programs in North Carolina.

Thank you for your assistance in completing this report. The information gathered as a part of this process should be of value to local governments and the state in assessing waste management programs and needs in planning for the future.

If you have any questions or concerns regarding this report please contact the Solid Waste Section at 919-733-0692 or a waste management specialist. Completed forms should be returned to the waste management specialist for your area. Refer to the attached map for names and addresses. A copy of this report should be sent to the county manager of each county served by this facility.

Facility Name Belews Creek Ash Landfill Permit Number 85-03
 Address Pine Hall Road, Walnut Cove, NC 27052
 Location SR 1908
 Facility Owner Duke Power Company
 Facility Operator Monex Resources, Inc.
 Facility Contact Person Jim Burnette
 Phone Number of Contact Person 919-429-0320 FAX _____
 Date Facility Began Receiving Waste 1985
 Date Facility Expected to Close --
 County(s) Served by this Facility Private
 Tipping Fee \$ NA /Ton _____ (Please attach a schedule of tip fees if appropriate)

1. Total waste landfilled at this facility during the period of July 1, 1990, thru June 30, 1991. Indicate tonnage received from each county served by this facility.

MONTH	COUNTY	STOKES	COUNTY	COUNTY	TOTAL
July		3,096			
August		8,687			
September		17,147			
October		4,348			
November		16,315			
December		20,108			
January		22,058			
February		10,530			
March		15,303			
April		13,001			
May		23,583			
June		19,262			
TOTAL		167,438			

Good
WEATHER CONDITIONS

N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS



85-03
PERMIT NUMBER

NAME OF SITE DUKE POWER / BELEWS CREEK ST. PLT.	
LOCATION SR 1908	SIGNATURE OF PERSON(S) RECEIVING WASTE David P. Roche

SIR: AN INSPECTION OF YOUR LAND DISPOSAL SITE HAS BEEN MADE THIS DATE AND YOU ARE NOTIFIED OF THE VIOLATIONS, IF ANY, MARKED BELOW WITH A CROSS (X).

- (1) PLAN AND PERMIT REQUIREMENTS
 - (a) Construction plans shall be approved and followed.
 - (b) Specified monitoring and reporting requirements shall be met.
- (2) SPREADING AND COMPACTING REQUIREMENTS
 - (a) Solid waste shall be restricted into the smallest area feasible.
 - (b) Solid waste shall be compacted as densely as practical into cells.
- (3) COVER REQUIREMENTS
 - (a) Solid waste shall be covered after each day of operation, with a compacted layer of at least six inches of suitable cover or as specified by the division.
 - (b) Areas which will not have additional wastes placed on them for 12 months or more shall be covered with a minimum of one foot of intermediate cover.
 - (c) After final termination of disposal operations at the site or a major part thereof or upon revocation of a permit, the area shall be covered with at least two feet of suitable compacted earth.
- (4) EROSION CONTROL REQUIREMENTS
 - (a) Adequate erosion control measures shall be practiced to prevent silt from leaving the site.
 - (b) Adequate erosion control measures shall be practiced to prevent excessive on-site erosion.
- RAINAGE CONTROL REQUIREMENTS
 - (a) Surface water shall be diverted from the operational area.
 - (b) Surface water shall not be impounded over or in waste.
 - (c) Completed areas shall be adequately sloped to allow surface water runoff in a controlled manner.
- (6) VEGETATION REQUIREMENTS
 - (a) Within six months after final termination of disposal operations at the site on a major part thereof or upon revocation of a permit, the area shall be stabilized with native grasses.
 - (b) Temporary seeding will be utilized as necessary to stabilize the site.
- (7) WATER PROTECTION REQUIREMENTS
 - (a) The separation distance of four (4) feet between waste and water table shall be maintained unless otherwise specified by the division in the permit.
 - (b) Solid waste shall not be disposed of in water.
 - (c) Leachate shall be contained on site or properly treated prior to discharge. An NPDES permit may be required prior to the discharge of leachate to surface waters.
- (8) ACCESS AND SECURITY REQUIREMENTS
 - (a) The site shall be adequately secured by means of gates, chains, berms, fences, and other security measures approved by the division, to prevent unauthorized entry.
 - (b) An attendant shall be on duty at the site at all times while it is open for public use to ensure compliance with operational requirements.
 - (c) The access road to the site shall be of all-weather construction and maintained in good condition.
 - (d) Dust control measures shall be implemented where necessary.
- (9) SIGN REQUIREMENTS
 - (a) Signs providing information on dumping procedures, the hours during which the site is open for public use, the permit number and other pertinent information shall be posted at the site entrance.
 - (b) Signs shall be posted stating that no hazardous or liquid waste can be received without written permission from the division.
 - (c) Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.
- (10) SAFETY REQUIREMENTS
 - (a) Open burning of solid waste is prohibited.
 - (b) Equipment shall be provided to control accidental fires or arrangements shall be made with the local fire protection agency to immediately provide fire-fighting services when needed.
 - (c) Fires that occur at a sanitary landfill shall be reported to the division within 24 hours and a written notification shall be submitted within 15 days.
 - (d) The removal of solid waste from a sanitary landfill is prohibited unless the owner/operator approves and the removal is not performed on the working face.
 - (e) Barrels and drums shall not be disposed of unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein.
- (11) WASTE ACCEPTANCE AND DISPOSAL REQUIREMENTS
 - (a) A site shall only accept those solid wastes which it is permitted to receive.
 - (b) No hazardous, liquid, or infectious waste shall be accepted or disposed of in a sanitary landfill except as may be approved by the division.
 - (c) Spoiled foods, animal carcasses, abattoir waste, hatchery waste, and other animal waste delivered to the disposal site shall be covered immediately.
 - (d) Asbestos waste that is packaged in accordance with 40 CFR 61, as amended through January 1, 1985, may be disposed of separate and apart from other solid wastes at the bottom of the working face or in an area not contiguous with other disposal areas, in either case, in virgin soil. Separate areas shall be clearly marked so that asbestos is not exposed by future land-disturbing activities. The waste shall be covered immediately with soil in a manner that will not cause airborne conditions. Copies of 40 CFR 61 may be obtained and inspected at the Solid and Hazardous Waste Management Branch, Division of Health Services, P. O. Box 2091, Raleigh, NC, 27602.
- (12) MISCELLANEOUS REQUIREMENTS
 - (a) Effective vector control measures shall be applied to control flies, rodents, and other insects or vermin when necessary.
 - (b) Appropriate methods such as fencing and diking shall be provided within the area to confine solid waste subject to be blown by the wind. At the conclusion of each day of operation, all windblown material resulting from the operation shall be collected and returned to the area by the owner or operator.

REMARKS: PERFORM TEMP SEEDING ASAP TO CONTROL EROSION.

DATE: 3-27-87 NAME: Terry Waddell
 Solid and Hazardous Waste Management Branch
Terry WADDELL
1135 PLAIN ST
Burlington, N.C.

Wiley
Weather Conditions

N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES

83-03
Permit Number

INSPECTION FORM FOR SANITARY LANDFILLS

Name of Site Snake Power Company - Belover Creek County Stokes
Location Pine Hall Rd. Stokes County Signature of Person(s) Receiving Report David Roche

SIR: An inspection of your land disposal site has been made this date and you are notified of the violations, if any, marked below with a cross (X).

- 1. PLAN REQUIREMENTS
 - Site plan approved
 - Construction plans approved
 - Plans being followed
- 2. SPREADING & COMPACTING
 - Waste restricted to the smallest area practicable
 - Waste properly compacted
- 3. COVER REQUIREMENTS
 - Six inches daily cover
 - Two foot final cover
 - One foot intermediate cover
- 4. DRAINAGE CONTROLLED
 - On-site erosion
 - Off-site siltation
 - Erosion control devices
 - Seeding of completed areas
 - Temporary seeding
- 5. WATER PROTECTION
 - Off-site leaching
 - Waste placed in water
 - Surface water impounded
 - Monitoring wells installed
- 6. ACCESS
 - Attendant on duty
 - Access controls
 - All weather road
 - Dust controlled
- BURNING
 - Evidence of burning
 - Fire control equipment available
- 8. SPECIAL WASTES
 - Spoiled food, animal carcasses, abattoir waste, hatchery waste, etc., covered immediately
- 9. UNAUTHORIZED WASTES ACCEPTED WITHOUT WRITTEN PERMISSION
 - Type _____
 - _____
 - _____
- 10. VECTOR CONTROL
 - Effective control measures
- 11. MISCELLANEOUS
 - Blowing material controlled
 - Proper signs posted

REMARKS: _____

DATE May 8, 1985

NAME Steve Phelbs
Solid & Hazardous Waste Management Branch



N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS

NAME OF SITE <i>Duke Power / Belews Creek Steam Plant (fly ash)</i>		COUNTY <i>STOKES</i>
LOCATION <i>SR 1908</i>	SIGNATURE OF PERSON(S) RECEIVING REPORT <i>X David P. Roche</i>	

SIR: AN INSPECTION OF YOUR LAND DISPOSAL SITE HAS BEEN MADE THIS DATE AND YOU ARE NOTIFIED OF THE VIOLATIONS, IF ANY, MARKED BELOW WITH A CROSS (X).

(1) PLAN AND PERMIT REQUIREMENTS

- (a) Construction plans shall be approved and followed.
- (b) Specified monitoring and reporting requirements shall be met.

(2) SPREADING AND COMPACTING REQUIREMENTS

- (a) Solid waste shall be restricted into the smallest area feasible.
- (b) Solid waste shall be compacted as densely as practical into cells.

(3) COVER REQUIREMENTS

- (a) Solid waste shall be covered after each day of operation, with a compacted layer of at least six inches of suitable cover or as specified by the division.
- (b) Areas which will not have additional wastes placed on them for 12 months or more shall be covered with a minimum of one foot of intermediate cover.
- (c) After final termination of disposal operations at the site or a major part thereof or upon revocation of a permit, the area shall be covered with at least two feet of suitable compacted earth.

(4) EROSION CONTROL REQUIREMENTS

- (a) Adequate erosion control measures shall be practiced to prevent silt from leaving the site.
- (b) Adequate erosion control measures shall be practiced to prevent excessive on-site erosion.

(5) DRAINAGE CONTROL REQUIREMENTS

- (a) Surface water shall be diverted from the operational area.
- (b) Surface water shall not be impounded over or in waste.
- (c) Completed areas shall be adequately sloped to allow surface water runoff in a controlled manner.

(6) VEGETATION REQUIREMENTS

- (a) Within six months after final termination of disposal operations at the site on a major part thereof or upon revocation of a permit, the area shall be stabilized with native grasses.
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- (c) The access road to the site shall be of all-weather construction and maintained in good condition.
- (d) Dust control measures shall be implemented where necessary.

(9) SIGN REQUIREMENTS

- (a) Signs providing information on dumping procedures, the hours during which the site is open for public use, the permit number and other pertinent information shall be posted at the site entrance.
- (b) Signs shall be posted stating that no hazardous or liquid waste can be received without written permission from the division.
- (c) Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.

(10) SAFETY REQUIREMENTS

- (a) Open burning of solid waste is prohibited.
- (b) Equipment shall be provided to control accidental fires or arrangements shall be made with the local fire protection agency to immediately provide fire-fighting services when needed.

Incidents that occur at a sanitary landfill shall be reported to the division within 24 hours and a written notification shall be submitted within 15 days.

The removal of solid waste from a sanitary landfill is prohibited unless the owner/operator approves and the removal is not performed on the working face.

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REMARKS:

correct erosion at dam, prevent silt from entering pond.

DATE: *6-15-87*

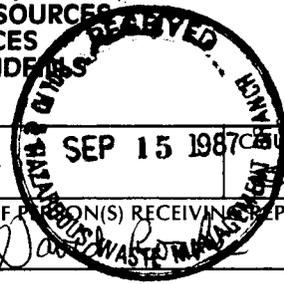
NAME: *[Signature]*
Solid and Hazardous Waste Management Branch

Dry
WEATHER CONDITIONS

N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS

85-03
PERMIT NUMBER

NAME OF SITE <i>DUKE POWER / BELEWS CREEK</i>		ST. PLT		COUNTY <i>WAKE</i>	
LOCATION <i>SR 1908</i>		SIGNATURE OF PERSON(S) RECEIVING REPORT <i>[Signature]</i>			



SIR: AN INSPECTION OF YOUR LAND DISPOSAL SITE HAS BEEN MADE THIS DATE AND YOU ARE NOTIFIED OF THE VIOLATIONS, IF ANY, MARKED BELOW WITH A CROSS (X).

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REMARKS: *previous violations corrected, recent heavy rain (6") cause some*

areas for repair;
DATE: *9/10/87* NAME: *[Signature]*
Solid and Hazardous Waste Management Branch

58

Dry
WEATHER CONDITIONS

N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS

85-03
PERMIT NUMBER

NAME OF SITE <u>Duke Power / Belews Creek</u>		COUNTY <u>Stokes Co</u>
LOCATION <u>SR 1908</u>	SIGNATURE OF PERSON(S) RECEIVING REPORT <u>David Roche</u>	

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- (12) MISCELLANEOUS REQUIREMENTS
 - ___ (a) Effective vector control measures shall be applied to control flies, rodents, and other insects or vermin when necessary.
 - ___ (b) Appropriate methods such as fencing and diking shall be provided within the area to confine solid waste subject to be blown by the wind. At the conclusion of each day of operation, all windblown material resulting from the operation shall be collected and returned to the area by the owner or operator.

REMARKS: landfill in good shape;

DATE: 10-26-87 NAME: [Signature]
Solid and Hazardous Waste Management Branch

10-4-87
SSY

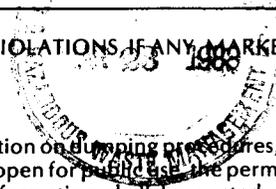
Dry
WEATHER CONDITIONS

N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS

4-19-88
85-03
PERMIT NUMBER

NAME OF SITE Duke Power/Belews Creek Stm. PLT		COUNTY Stokes Co
LOCATION SR 1908	SIGNATURE OF PERSON(S) RECEIVING REPORT Ralph C. Roberts	

SIR: AN INSPECTION OF YOUR LAND DISPOSAL SITE HAS BEEN MADE THIS DATE AND YOU ARE NOTIFIED OF THE VIOLATIONS IF ANY, MARKED BELOW WITH A CROSS (X).



- (1) PLAN AND PERMIT REQUIREMENTS
 - ___ (a) Construction plans shall be approved and followed.
 - ___ (b) Specified monitoring and reporting requirements shall be met.
- (2) SPREADING AND COMPACTING REQUIREMENTS
 - ___ (a) Solid waste shall be restricted into the smallest area feasible.
 - ___ (b) Solid waste shall be compacted as densely as practical into cells.
- (3) COVER REQUIREMENTS
 - ___ (a) Solid waste shall be covered after each day of operation, with a compacted layer of at least six inches of suitable cover or as specified by the division.
 - ___ (b) Areas which will not have additional wastes placed on them for 12 months or more shall be covered with a minimum of one foot of intermediate cover.
 - ___ (c) After final termination of disposal operations at the site or a major part thereof or upon revocation of a permit, the area shall be covered with at least two feet of suitable compacted earth.
- (4) EROSION CONTROL REQUIREMENTS
 - ___ (a) Adequate erosion control measures shall be practiced to prevent silt from leaving the site.
 - ___ (b) Adequate erosion control measures shall be practiced to prevent excessive on-site erosion.
- (5) RAINAGE CONTROL REQUIREMENTS
 - ___ (a) Surface water shall be diverted from the operational area.
 - ___ (b) Surface water shall not be impounded over or in waste.
 - ___ (c) Completed areas shall be adequately sloped to allow surface water runoff in a controlled manner.
- (6) VEGETATION REQUIREMENTS
 - ___ (a) Within six months after final termination of disposal operations at the site on a major part thereof or upon revocation of a permit, the area shall be stabilized with native grasses.
 - ___ (b) Temporary seeding will be utilized as necessary to stabilize the site.
- (7) WATER PROTECTION REQUIREMENTS
 - ___ (a) The separation distance of four (4) feet between waste and water table shall be maintained unless otherwise specified by the division in the permit.
 - ___ (b) Solid waste shall not be disposed of in water.
 - ___ (c) Leachate shall be contained on site or properly treated prior to discharge. An NPDES permit may be required prior to the discharge of leachate to surface waters.
- (8) ACCESS AND SECURITY REQUIREMENTS
 - ___ (a) The site shall be adequately secured by means of gates, chains, berms, fences, and other security measures approved by the division, to prevent unauthorized entry.
 - ___ (b) An attendant shall be on duty at the site at all times while it is open for public use to ensure compliance with operational requirements.
 - ___ (c) The access road to the site shall be of all-weather construction and maintained in good condition.
 - ___ (d) Dust control measures shall be implemented where necessary.
- (9) SIGN REQUIREMENTS
 - ___ (a) Signs providing information on dumping procedures, the hours during which the site is open for public use, the permit number and other pertinent information shall be posted at the site entrance.
 - ___ (b) Signs shall be posted stating that no hazardous or liquid waste can be received without written permission from the division.
 - ___ (c) Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.
- (10) SAFETY REQUIREMENTS
 - ___ (a) Open burning of solid waste is prohibited.
 - ___ (b) Equipment shall be provided to control accidental fires or arrangements shall be made with the local fire protection agency to immediately provide fire-fighting services when needed.
 - ___ (c) Fires that occur at a sanitary landfill shall be reported to the division within 24 hours and a written notification shall be submitted within 15 days.
 - ___ (d) The removal of solid waste from a sanitary landfill is prohibited unless the owner/operator approves and the removal is not performed on the working face.
 - ___ (e) Barrels and drums shall not be disposed of unless they are empty and perforated sufficiently to ensure that no liquid or hazardous waste is contained therein.
- (11) WASTE ACCEPTANCE AND DISPOSAL REQUIREMENTS
 - ___ (a) A site shall only accept those solid wastes which it is permitted to receive.
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 - ___ (a) Effective vector control measures shall be applied to control flies, rodents, and other insects or vermin when necessary.
 - ___ (b) Appropriate methods such as fencing and diking shall be provided within the area to confine solid waste subject to be blown by the wind. At the conclusion of each day of operation, all windblown material resulting from the operation shall be collected and returned to the area by the owner or operator.

REMARKS: INSTALL Temp. EROSION CONTROL DEVICES IN RECENTLY DISTURBED AREA.

otherwise Landfill looks good!
DATE: 3-14-88 NAME: [Signature]
Solid and Hazardous Waste Management Branch

Dry-Hot
WEATHER CONDITIONS

N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS

85-03
PERMIT NUMBER

NAME OF SITE <i>Duke Power / Belews Creek</i>	RECEIVED JUL 28 1988 SOLID AND HAZARDOUS WASTE MANAGEMENT BRANCH	COUNTY <i>STOKES Co</i>
LOCATION <i>SR 1908</i>	SIGNATURE OF PERSON(S) RECEIVING REPORT <i>Ralph E. Roberts</i>	

SIR: AN INSPECTION OF YOUR LAND DISPOSAL SITE HAS BEEN MADE THIS DATE AND YOU ARE NOTIFIED OF THE VIOLATIONS, IF ANY, MARKED BELOW WITH A CROSS (X).

(1) PLAN AND PERMIT REQUIREMENTS

- ___ (a) Construction plans shall be approved and followed.
- ___ (b) Specified monitoring and reporting requirements shall be met.

(2) SPREADING AND COMPACTING REQUIREMENTS

- ___ (a) Solid waste shall be restricted into the smallest area feasible.
- ___ (b) Solid waste shall be compacted as densely as practical into cells.

(3) COVER REQUIREMENTS

- ___ (a) Solid waste shall be covered after each day of operation, with a compacted layer of at least six inches of suitable cover or as specified by the division.
- ___ (b) Areas which will not have additional wastes placed on them for 12 months or more shall be covered with a minimum of one foot of intermediate cover.
- ___ (c) After final termination of disposal operations at the site or a major part thereof or upon revocation of a permit, the area shall be covered with at least two feet of suitable compacted earth.

(4) EROSION CONTROL REQUIREMENTS

- ___ (a) Adequate erosion control measures shall be practiced to prevent silt from leaving the site.
- ___ (b) Adequate erosion control measures shall be practiced to prevent excessive on-site erosion.

(5) RAINAGE CONTROL REQUIREMENTS

- ___ (a) Surface water shall be diverted from the operational area.
- ___ (b) Surface water shall not be impounded over or in waste.
- ___ (c) Completed areas shall be adequately sloped to allow surface water runoff in a controlled manner.

(6) VEGETATION REQUIREMENTS

- ___ (a) Within six months after final termination of disposal operations at the site on a major part thereof or upon revocation of a permit, the area shall be stabilized with native grasses.
- ___ (b) Temporary seeding will be utilized as necessary to stabilize the site.

(7) WATER PROTECTION REQUIREMENTS

- ___ (a) The separation distance of four (4) feet between waste and water table shall be maintained unless otherwise specified by the division in the permit.
- ___ (b) Solid waste shall not be disposed of in water.
- ___ (c) Leachate shall be contained on site or properly treated prior to discharge. An NPDES permit may be required prior to the discharge of leachate to surface waters.

(8) ACCESS AND SECURITY REQUIREMENTS

- ___ (a) The site shall be adequately secured by means of gates, chains, berms, fences, and other security measures approved by the division, to prevent unauthorized entry.
- ___ (b) An attendant shall be on duty at the site at all times while it is open for public use to ensure compliance with operational requirements.
- ___ (c) The access road to the site shall be of all-weather construction and maintained in good condition.
- ___ (d) Dust control measures shall be implemented where necessary.

(9) SIGN REQUIREMENTS

- ___ (a) Signs providing information on dumping procedures, the hours during which the site is open for public use, the permit number and other pertinent information shall be posted at the site entrance.
- ___ (b) Signs shall be posted stating that no hazardous or liquid waste can be received without written permission from the division.
- ___ (c) Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.

(10) SAFETY REQUIREMENTS

- ___ (a) Open burning of solid waste is prohibited.
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(12) MISCELLANEOUS REQUIREMENTS

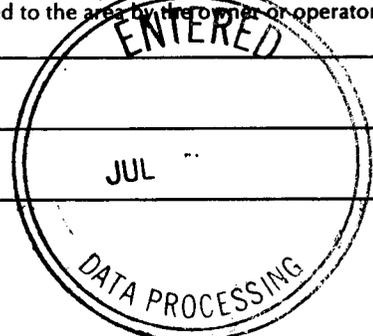
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REMARKS:

Landfill looks good

DATE: *6-23-88*

NAME: *[Signature]*
Solid and Hazardous Waste Management Branch



Dry - Hot
WEATHER CONDITIONS

N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS

85-03
PERMIT NUMBER

NAME OF SITE Duke Power / BELFUS CREEK		COUNTY STOKES CO
LOCATION SR 1908	SIGNATURE OF PERSON(S) RECEIVING REPORT X Ralph C Roberts	

SIR: AN INSPECTION OF YOUR LAND DISPOSAL SITE HAS BEEN MADE THIS DATE AND YOU ARE NOTIFIED OF THE VIOLATIONS, IF ANY, MARKED BELOW WITH A CROSS (X).

(1) PLAN AND PERMIT REQUIREMENTS

- ___ (a) Construction plans shall be approved and followed.
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- ___ (c) After final termination of disposal operations at the site or a major part thereof or upon revocation of a permit, the area shall be covered with at least two feet of suitable compacted earth.

(4) EROSION CONTROL REQUIREMENTS

- ___ (a) Adequate erosion control measures shall be practiced to prevent silt from leaving the site. *to ASH POND*
- ___ (b) Adequate erosion control measures shall be practiced to prevent excessive on-site erosion.

RAINAGE CONTROL REQUIREMENTS

- ___ (a) Surface water shall be diverted from the operational area.
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REMARKS: *repair stand pipe to prevent off site siltation*

DATE: *8-19-88* NAME: *Jay Madell*
Solid and Hazardous Waste Management Branch SEP 21 1988

Sunny - Dry
WEATHER CONDITIONS

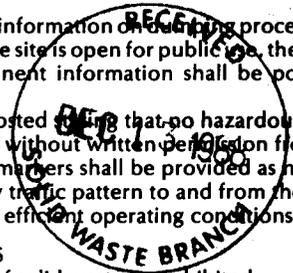
N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS

85-03
PERMIT NUMBER

NAME OF SITE <i>Duke Power / Beleus Creek</i>		COUNTY <i>Stokes Co</i>
LOCATION <i>SR 1908</i>	SIGNATURE OF PERSON(S) RECEIVING REPORT <i>Ralph Roberto</i>	

SIR: AN INSPECTION OF YOUR LAND DISPOSAL SITE HAS BEEN MADE THIS DATE AND YOU ARE NOTIFIED OF THE VIOLATIONS, IF ANY, MARKED BELOW WITH A CROSS (X).

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REMARKS: *landfill look good!*

JAN 13 1989

DATE: *12-5-88* NAME: *[Signature]*
Solid and Hazardous Waste Management Branch

HEAVY RAIN
WEATHER CONDITIONS

N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS

85-03
PERMIT NUMBER

NAME OF SITE Duke Power / Belews Creek		COUNTY Stokes
LOCATION SR 1908	SIGNATURE OF PERSON(S) RECEIVING REPORT Ralph Roberts	

SIR: AN INSPECTION OF YOUR LAND DISPOSAL SITE HAS BEEN MADE THIS DATE AND YOU ARE NOTIFIED OF THE VIOLATIONS, IF ANY, MARKED BELOW WITH A CROSS (X).

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- ___ (c) Spoiled foods, animal carcasses, abattoir waste, hatchery waste, and other animal waste delivered to the disposal site shall be covered immediately.
- ___ (d) Asbestos waste that is packaged in accordance with 40 CFR 61, as amended through January 1, 1985, may be disposed of separate and apart from other solid wastes at the bottom of the working face or in an area not contiguous with other disposal areas, in either case, in virgin soil. Separate areas shall be clearly marked so that asbestos is not exposed by future land-disturbing activities. The waste shall be covered immediately with soil in a manner that will not cause airborne conditions. Copies of 40 CFR 61 may be obtained and inspected at the Solid and Hazardous Waste Management Branch, Division of Health Services, P. O. Box 2091, Raleigh, NC, 27602.

(12) MISCELLANEOUS REQUIREMENTS

- ___ (a) Effective vector control measures shall be applied to control flies, rodents, and other insects or vermin when necessary.
- ___ (b) Appropriate methods such as fencing and diking shall be provided within the area to confine solid waste subject to be blown by the wind. At the conclusion of each day of operation, all windblown material resulting from the operation shall be collected and returned to the area by the owner or operator.

REMARKS:

LANDFILL VERY WET

DATE: 3-23-89

NAME: [Signature] Solid and Hazardous Waste Management Branch

SUNNEY - Dry
WEATHER CONDITIONS

N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS

85-03
PERMIT NUMBER

NAME OF SITE Duke Power / Belew Creek		COUNTY STOKES
LOCATION SR 1908	SIGNATURE OF PERSON(S) RECEIVING REPORT Ralph Roberts	

SIR: AN INSPECTION OF YOUR LAND DISPOSAL SITE HAS BEEN MADE THIS DATE AND YOU ARE NOTIFIED OF THE VIOLATIONS, IF ANY, MARKED BELOW WITH A CROSS (X).

(1) PLAN AND PERMIT REQUIREMENTS

- ___ (a) Construction plans shall be approved and followed.
- ___ (b) Specified monitoring and reporting requirements shall be met.

(2) SPREADING AND COMPACTING REQUIREMENTS

- ___ (a) Solid waste shall be restricted into the smallest area feasible.
- ___ (b) Solid waste shall be compacted as densely as practical into cells.

(3) COVER REQUIREMENTS

- ___ (a) Solid waste shall be covered after each day of operation, with a compacted layer of at least six inches of suitable cover or as specified by the division.
- ___ (b) Areas which will not have additional wastes placed on them for 12 months or more shall be covered with a minimum of one foot of intermediate cover.
- ___ (c) After final termination of disposal operations at the site or a major part thereof or upon revocation of a permit, the area shall be covered with at least two feet of suitable compacted earth.

(4) EROSION CONTROL REQUIREMENTS

- ___ (a) Adequate erosion control measures shall be practiced to prevent silt from leaving the site.
- ___ (b) Adequate erosion control measures shall be practiced to prevent excessive on-site erosion.

RAINAGE CONTROL REQUIREMENTS

- ___ (a) Surface water shall be diverted from the operational area.
- ___ (b) Surface water shall not be impounded over or in waste.
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(6) VEGETATION REQUIREMENTS

- ___ (a) Within six months after final termination of disposal operations at the site on a major part thereof or upon revocation of a permit, the area shall be stabilized with native grasses.
- ___ (b) Temporary seeding will be utilized as necessary to stabilize the site.

(7) WATER PROTECTION REQUIREMENTS

- ___ (a) The separation distance of four (4) feet between waste and water table shall be maintained unless otherwise specified by the division in the permit.
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- ___ (c) Leachate shall be contained on site or properly treated prior to discharge. An NPDES permit may be required prior to the discharge of leachate to surface waters.

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- ___ (a) The site shall be adequately secured by means of gates, chains, berms, fences, and other security measures approved by the division, to prevent unauthorized entry.
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- ___ (d) Dust control measures shall be implemented where necessary.

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(10) SAFETY REQUIREMENTS

- ___ (a) Open burning of solid waste is prohibited.
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- ___ (c) Fires that occur at a sanitary landfill shall be reported to the division within 24 hours and a written notification shall be submitted within 15 days.
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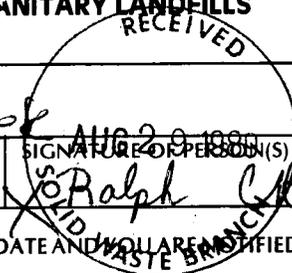
REMARKS: LANDFILL LOOKS GREAT!

DATE: 5-25-89 NAME: Jerry A. Hubbell
Solid and Hazardous Waste Management Branch

SUNNY-Dry
WEATHER CONDITIONS

N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS

85-03
PERMIT NUMBER



4E OF SITE Duke Power / Belews Creek	COUNTY STOKES CO
LOCATION SR 1908	SIGNATURE OF PERSON(S) RECEIVING REPORT Ralph C. Roberts

SIR: AN INSPECTION OF YOUR LAND DISPOSAL SITE HAS BEEN MADE THIS DATE AND YOU ARE NOTIFIED OF THE VIOLATIONS, IF ANY, MARKED BELOW WITH A CROSS (X).

- (1) PLAN AND PERMIT REQUIREMENTS
 - ___ (a) Construction plans shall be approved and followed.
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REMARKS: LF veg is well established. Looks good!

DATE: 8-23-89 NAME: [Signature] AUG 29 1989
Solid and Hazardous Waste Management Branch

Sunny - Dry
WEATHER CONDITIONS

N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS

85-03
PERMIT NUMBER

NAME OF SITE Duke Power / Belew Creek		COUNTY Stoke Co
LOCATION JR 1908	SIGNATURE OF PERSON(S) RECEIVING REPORT X C.E. Brown	

RECEIVED
DEC 5 1989

SIR: AN INSPECTION OF YOUR LAND DISPOSAL SITE HAS BEEN MADE THIS DATE AND YOU ARE NOTIFIED OF THE VIOLATIONS, IF ANY, MARKED BELOW WITH A CROSS (X).

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REMARKS: LF Looks good!

DATE: 11-30-89 NAME: [Signature]
Solid and Hazardous Waste Management Branch

CLEAR / DRY
WEATHER CONDITIONS

N.C. DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
INSPECTION FOR SANITARY LANDFILLS

85-03
PERMIT NUMBER

NAME OF SITE MIKE POWER / BELGUS CREEK STEAM PLANT ASH MONOFILL		COUNTY STOKES
LOCATION SR 1908	SIGNATURE OF PERSON(S) RECEIVING REPORT J. S. Shawver	

SIR: AN INSPECTION OF YOUR LAND DISPOSAL SITE HAS BEEN MADE THIS DATE AND YOU ARE NOTIFIED OF THE VIOLATIONS, IF ANY, MARKED BELOW WITH A CROSS (X).

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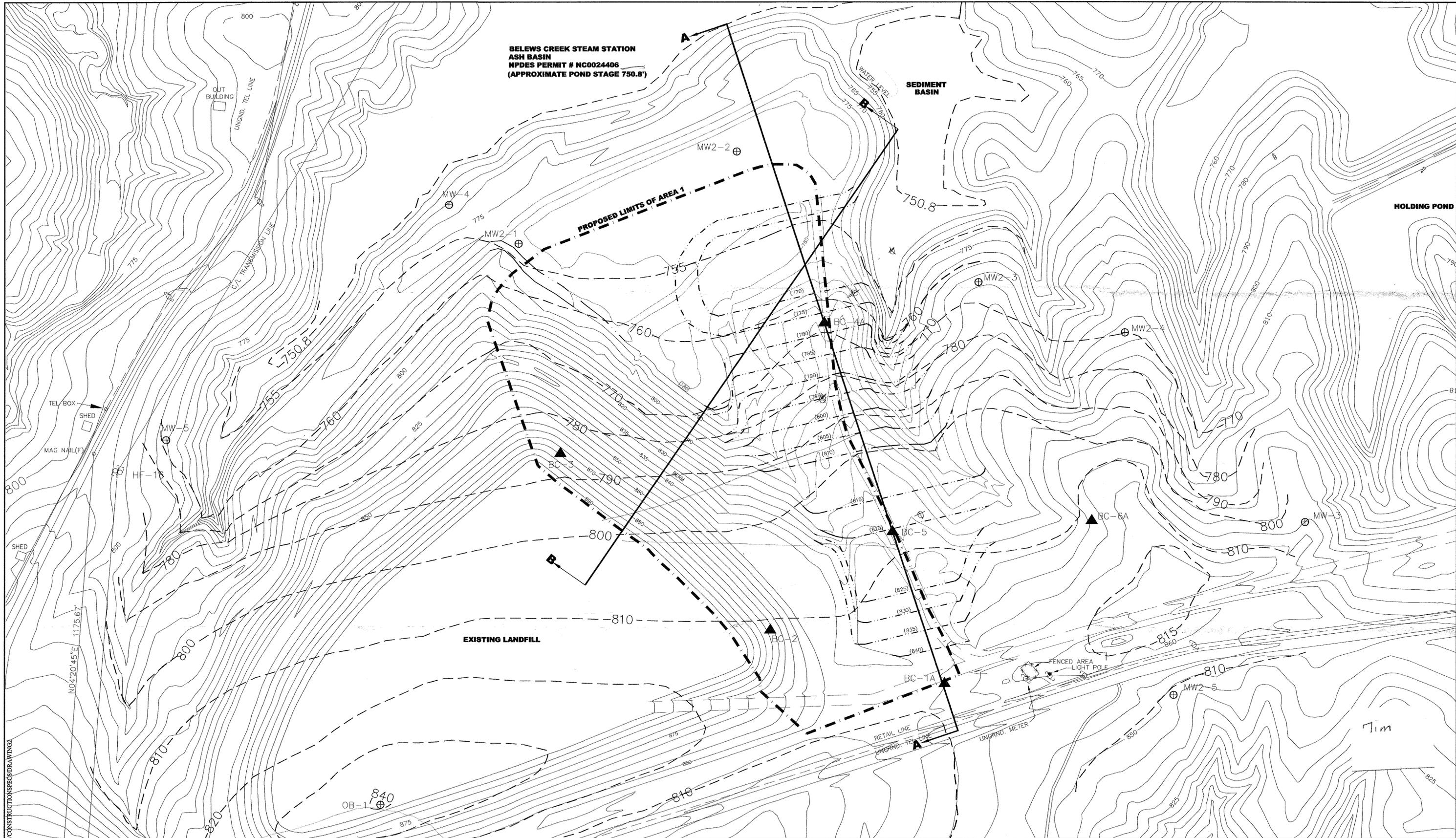
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REMARKS: _____

DATE: 7/23/91 NAME: [Signature] Solid and Hazardous Waste Management Branch

8/9/91
[Signature]

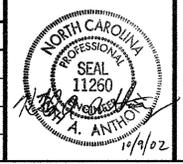


**BELEWS CREEK STEAM STATION
ASH BASIN
NPDES PERMIT # NC0024406
(APPROXIMATE POND STAGE 750.8')**

LEGEND:

	PROPOSED ASH PLACEMENT -- AREA 1
	PROPOSED AREA 1 GRADES
	APPROXIMATE GROUNDWATER ELEVATIONS

REVISIONS		
REV.	DATE	COMMENTS



SHIELD
ENGINEERING, INC.
4301 TAGGART CREEK ROAD
CHARLOTTE, NC 28208
704-394-6919
704-394-6968 FAX
www.shieldengineering.com

PROJECT#: 1020062
DATE: 10/2/02
PROJECT MGR: KAA
DESIGNED BY: AAD
DRAWN BY: AAD
SCALE: 1" = 100'

BELEWS CREEK ASH LANDFILL DESIGN
DUKE ENERGY
STOKES COUNTY, NORTH CAROLINA

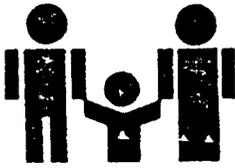
GRADING PLAN	DRAWING: 2
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RECEIVED
N.C. Dept.
DEC 21 2002

ENGINEERING/2002/1020062 CONSTRUCTION SPEC/DRAWING A

DEC 13 1984

PERMITS



Ronald H. Levine, M.D., M.P.H.
STATE HEALTH DIRECTOR

DIVISION OF HEALTH SERVICES
P.O. Box 2091
Raleigh, N.C. 27602-2091

STOKES

December 10, 1984

Mr. D.P. Roche
Duke Power Company
Fossil Production Department
P.O. Box 33189
422 South Church Street
Charlotte, NC 28242

Re: Permit 85-03 Duke Power Company , *STOKES CO.*

Dear Mr. Roche:

The enclosed permit is issued in accordance with GS 130A-290.

If you have any questions, please advise.

Sincerely,

O.W. Strickland, Head
Solid & Hazardous Waste Management Branch
Environmental Health Section

JGL/plg

Enclosure

cc: Steve Phibbs ✓
Julian Foscue

PERMIT NO. 85-03

DATE ISSUED 12-10-84

STATE OF NORTH CAROLINA
DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES

P.O. Box 2091 Raleigh 27602

SOLID WASTE PERMIT

Duke Power Company is hereby issued a permit to
operate a Sanitary Landfill
located On SR 1908 Belews Creek Steam Station Plant Property, Stokes County,
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 on the below described property.
BEGINNING at a point, N 923,404.00, E 1683,780.48 located S 58°56'18"W 1714.41'
from BC marker 146, thence S 82°15'W, 124.5'; thence S 79°15'W, 103.2'; thence
S 76°12'W, 102.9'; thence S 73°44'W, 102.2'; thence S 72°01'W, 1440.4'; thence
S 72°01'W, 342.2'; thence S 73°58'W, 75.7'; thence S 75°48'W, 86.5'; thence 79°53'
W, 107.0'; thence S 83°00'W, 97.5'; thence S 85°03'W, 179.8'; thence S 86°00'W,
216.8'; thence N 4°22'E, 1089.6'; thence N 29°12'E, 573.5'; thence N 86°36'E, 197.1'
thence 6450' with ash pond water line; thence S 65°20'E, 99.0'; thence S 24°40'W,
274.0'; thence S 1°26'W, 673.5'; thence S 39°58'E, 101.7'; thence S 13°09'W, 279.2'
to the beginning.



O. W. Strickland, Head
Solid & Hazardous Waste Management Branch
Environmental Health Section

PERMIT NO. 85-03

DATE ISSUED 12-10-84

SOLID WASTE PERMIT

Conditions of Permit:

1. This permit may be subject to review at an administrative hearing upon petition of anyone whose legal rights, privileges and duties may have been affected by the issuance thereof.
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 & Hazardous Waste Management Branch and shall have indicated on it the page and book number, date of recordation and registrar's seal.
3. The following requirements shall be met prior to receiving solid waste at the site:
 - a. Site preparation shall be in accordance with construction plan.
 - b. Site inspection shall be made by a representative of the Division of Health Services.
 - c. The permit number and the words "NO HAZARDOUS OR LIQUID WASTE ACCEPTED WITHOUT WRITTEN PERMISSION FROM THE DIVISION OF HEALTH SERVICES" shall be posted on an entrance sign.
4. This site is permitted to receive non-hazardous flyash from Duke Power Company.
5. This permit is for construction according to plans prepared by Monier Resources, Inc. dated 12/83. Any modification or deviation from the approved plans shall be approved by the N.C. Solid and Hazardous Waste Management Branch.
6. Groundwater monitoring is not required at time of permit issuance.
7. When portions of the site have reached final grade, two feet of soil will be applied, and seeding implemented.
8. When this property is sold, leased, conveyed or transferred, the deed or other instrument of 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.

FLYASH LANDFILL PERMIT APPLICATION
BELEWS CREEK STEAM STATION
WALNUT COVE, N. C.



The following information is provided to address the application requirements for sanitary landfills under 10NCAC10G.0504. Some of these requirements do not apply to the flyash landfill proposed for Belews Creek Steam Station.

.0504 (1) (a) Property map

A map of the property owned by Duke Power Company at Belews Creek Steam Station is provided as Attachment 1. The dwellings (marked with an X) shown along County Roads 1908 and 1904 near the site were present prior to the construction of Belews Creek Steam Station and are no longer in existence.

(1) (b) Site plan and groundwater sources

Attachment 2 is a site plan showing the location of the drinking water well at the station. There are no other groundwater users or sources in the vicinity of the proposed landfill.

(1) (c) Geological and hydrological study

Because the landfill site will only receive flyash (which is a non-hazardous material based on Extraction Procedure leach test results given in Attachment 3), and the landfill will be located adjacent to the NPDES-permitted ash pond which will receive all surface drainage from the landfill, a variance from the geological and hydrological study requirements is requested under Section .0205.

(1) (d) Design plan

Specifications for cleaning, constructing, operating, and closing the flyash landfill are provided as Attachment 4.

(1) (e) Zoning approval

The landfill site is on Belews Creek Steam Station property and is already zoned for industrial use.

(1) (f) Siting standards

The proposed landfill is not located in a floodplain and does not involve any critical habitat. No putrescible waste shall be disposed of at this site. The access road to the site will be controlled by a locked gate and most of the site is fenced. All surface drainage from the site will be discharged to the NPDES-permitted pond and not to receiving waters. The site is over 500 ft. from private dwellings and drinking water wells. Erosion will be controlled at the site as described in Attachment 4, Appendix A.

.0504 (2) Construction plan

Attachment 4 includes details on grading, surface water and erosion control, sequential use of the site, and final elevation and closure of the site. A map and typical cross-section of the landfill are provided. The construction plan does not address soil boring and groundwater monitoring locations for the site; a variance under Section .0205 is requested from those requirements.

ATTACHMENT 3

BELEWS CREEK
FLY ASH LEACHATE (ppb)

	<u>ASTM</u>	<u>EPA EP</u>	<u>EPA Limits</u>
pH	3.7	4.0	
Arsenic	500	<5	5,000
Barium	Not Determined	<500	100,000
Cadmium	100	<100	1,000
Chromium	115	<100	5,000
Cobalt	100	<100	
Copper	2050	600	
Iron	2000	300	
Lead	<1000	<1000	5,000
Manganese	200	100	
Mercury	Not Determined	<2	200
Nickel	300	200	
Selenium	50	<10	1,000
Silver	Not Determined	<100	5,000
Zinc	1050	300	

Source: Raba-Kistner Consultants



Stokes
 PERMIT NO. 85-03

DATE ISSUED 12-10-84

STATE OF NORTH CAROLINA
 DEPARTMENT OF HUMAN RESOURCES
 DIVISION OF HEALTH SERVICES

P.O. Box 2091 Raleigh 27602



SOLID WASTE PERMIT

Duke Power Company is hereby issued a permit to operate a Sanitary Landfill located On SR 1908 Belews Creek Steam Station Plant Property, Stokes County, 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 on the below described property. BEGINNING at a point, N 923,404.00, E 1683,780.48 located S 58°56'18"W 1714.41' from BC marker 146, thence S 82°15'W, 124.5'; thence S 79°15'W, 103.2'; thence S 76°12'W, 102.9'; thence S 73°44'W, 102.2'; thence S 72°01'W, 1440.4'; thence S 72°01'W, 342.2'; thence S 73°58'W, 75.7'; thence S 75°48'W, 86.5'; thence 79°53' W, 107.0'; thence S 83°00'W, 97.5'; thence S 85°03'W, 179.8'; thence S 86°00'W, 216.8'; thence N 4°22'E, 1089.6'; thence N 29°12'E, 573.5'; thence N 86°36'E, 197.1' thence 6450' with ash pond water line; thence S 65°20'E, 99.0'; thence S 24°40'W, 274.0'; thence S 1°26'W, 673.5'; thence S 39°58'E, 101.7'; thence S 13°09'W, 279.2' to the beginning.

O. W. Strickland

O. W. Strickland, Head
 Solid & Hazardous Waste Management Branch
 Environmental Health Section

PERMIT NO. 85-03DATE ISSUED 12-10-84

SOLID WASTE PERMIT

Conditions of Permit:

1. This permit may be subject to review at an administrative hearing upon petition of anyone whose legal rights, privileges and duties may have been affected by the issuance thereof.
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 & Hazardous Waste Management Branch and shall have indicated on it the page and book number, date of recordation and registrar's seal.
3. The following requirements shall be met prior to receiving solid waste at the site:
 - a. Site preparation shall be in accordance with construction plan.
 - b. Site inspection shall be made by a representative of the Division of Health Services.
 - c. The permit number and the words "NO HAZARDOUS OR LIQUID WASTE ACCEPTED WITHOUT WRITTEN PERMISSION FROM THE DIVISION OF HEALTH SERVICES" shall be posted on an entrance sign.
4. This site is permitted to receive non-hazardous flyash from Duke Power Company.
5. This permit is for construction according to plans prepared by Monier Resources, Inc. dated 12/83. Any modification or deviation from the approved plans shall be approved by the N.C. Solid and Hazardous Waste Management Branch.
6. Groundwater monitoring is not required at time of permit issuance.
7. When portions of the site have reached final grade, two feet of soil will be applied, and seeding implemented.
8. When this property is sold, leased, conveyed or transferred, the deed or other instrument of 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.



0296 0111

Ronald H. Levine, M.D., M.P.H.
STATE HEALTH DIRECTOR

DIVISION OF HEALTH SERVICES
P.O. Box 2091
Raleigh, N.C. 27602-2091

CERTIFIED COPY OF SOLID WASTE PERMIT

I do hereby certify that the attached PERMIT is an exact and true copy
of Permit No. 85-03.

North Carolina, Stokes County
The foregoing certificate of Charles E. Rundgren,
Rundgren a Notary (or Notaries)
Public of the governmental units designated is (are)
certified to be correct. Presented for registration and
recorded in this office in Book 96 Page 109
This 11 day of Dec. 1984
at 10 o'clock A.M.
EDNA E. CRADDOCK, Register of Deeds
By Kathy Young Deputy

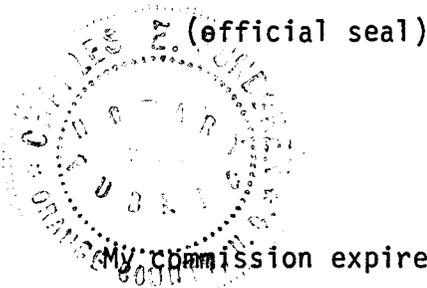
O. W. Strickland
O. W. Strickland, Head
Solid & Hazardous Waste Management Branch
Environmental Health Section

North Carolina

WAKE County

I, CHARLES E. RUNDGREN, a Notary Public for said
County and State, do hereby certify that O. W. STRICKLAND
personally appeared before me this day and acknowledged the due
execution of the foregoing instrument.

Witness my hand and official seal, this the 11th day of
December, 1984.



Charles E. Rundgren
Notary Public

My commission expires April 18, 1986.

DUKE POWER COMPANY
FOSSIL PRODUCTION DEPARTMENT
P.O. BOX 33189, 422 SOUTH CHURCH STREET
CHARLOTTE, N.C. 28242
(704) 373-4011



December 3, 1984

Mr. Gordon Layton
Environmental Engineer
Solid & Hazardous Waste Management Branch
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602

Subject: Flyash Landfill Permit Application
Belews Creek Steam Station, Walnut Cove, N. C.

Dear Mr. Layton:

The property description to be used in the permit for the Belews Creek flyash landfill site is:

- ✓ Beginning at a point, N 923,404.00
E 1683,780.48
located S 58°56'18"W 1714.41' from BC marker 146
thence S 82°15'W, 124.5';
thence S 79°15'W, 103.2';
thence S 76°12'W, 102.9';
thence S 73°44'W, 102.2';
thence S 72° 01'W, 1440.4';
thence S 72°01'W, 342.2';
thence S 73°58'W, 75.7';
thence S 75°48'W, 86.5';
thence 79°53'W, 107.0';
thence S 83°00'W, 97.5';
thence S 85°03'W, 179.8';
thence S 86°00'W, 216.8';
thence N 4°22'E, 1089.6';
thence N 29°12'E, 573.5';
thence N 86°36'E, 197.1';
thence 6450' with ash pond water line
thence S 65°20'E, 99.0';
thence S 24°40'W, 274.0';
thence S 1°26'W, 673.5';
thence S 39°58'E, 101.7';
✓ thence S 13°09'W, 279.2' to the beginning.

Very truly yours,

David Roche

D. P. Roche
Biologist
Fossil Environmental Compliance

DPR:mp

NORTH CAROLINA DEPARTMENT OF NATURAL RESOURCES AND
COMMUNITY DEVELOPMENT - DIVISION OF ENVIRONMENTAL
MANAGEMENT

NOVEMBER 23, 1984

MEMORANDUM

RECEIVED
NOV 29 1984

To: Gil Vinzani, Supervisor *STV*
Permits Review Unit

PERMITS & ENGINEERING

Thru: M. Steven Mauney *MS*
Regional Engineer, WSRO

From: James C. Watson
Environmental Engineer

Subject: Proposed Duke Power Flyash Landfill
Walnut Cove, Stokes County

I visited the above mentioned site of the proposed flyash landfill on 11/2/84, with Mr. David Roche, Biologist, Fossil Environmental Compliance, Duke Power Company. According to Mr. Roche, the following actions will be taken:

- a) The station will reroute the discharge from Belews Lake to the Dan River, as the Dan is able to handle it more effectively.
- b) Acid will be added to the discharge to lower the Sel Count.
- c) The proposed landfill site will be located across SR 1908 from the steam station.

All surface drainage from the site will be discharged to the NPDES-permitted pond and not to receiving waters.

Recommendation: I recommend approval of the proposed plan to landfill.



North Carolina Department of Natural Resources & Community Development

James B. Hunt, Jr., Governor

James A. Summers, Secretary

M E M O R A N D U M

TO: Steve Mauney
Regional Engineer, WSRO

FROM: John L. Choplin *JL*
Regional Hydrologist, WSRO

SUBJECT: Proposed Duke Power Company Belews Creek Steam Station,
Walnut Cove, Stokes County

DATE: November 28, 1984

The material in the application did not address groundwater contamination or the prevention of contamination.

The analysis, attachment 3 in the package, indicates a low pH value of 3.7. There was no discussion of what effect this would have on the GB and eventually GA groundwaters of the area of the site. Other parameters in the flyash leachate could cause a degradation of groundwater quality. The parameters of concern are iron, chromium, manganese, cadmium, and pH.

It is my opinion that before the Division signs off on this permit that the Groundwater Section should be provided sufficient data to evaluate this project's effect on groundwater resources in the area.

amh

cc: Bob Cheek

Gordon Layton:

*Everything checks out OK -
proposed plan meets
DEM approval.*

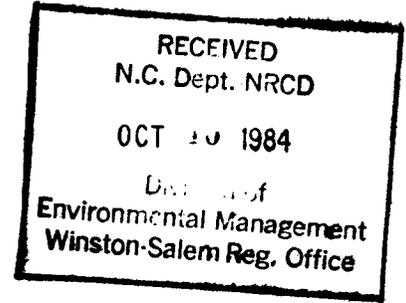
Gil V.





Ronald H. Levine, M.D., M.P.H.
STATE HEALTH DIRECTOR

DIVISION OF HEALTH SERVICES
P.O. Box 2091
Raleigh, N.C. 27602-2091



October 4, 1984

MEMORANDUM

TO: Robert Helms, Director
Division of Environmental Management

FROM: *CHS*
C. W. Strickland, Head
Solid & Hazardous Waste Management Branch
Environmental Health Section

SUBJECT: Proposed Duke Power Flyash Landfill
Walnut Cove, N. C.

Please review the enclosed permit application in accordance with current MOU.

Thank you.

JGL:ct

Enclosure

*Steve Mauney W-5
Reg. Office 10/8/84*

*Proposed landfill - DHS will
permit - Regional Office Incl.
Groundwater should review
& comment back to DHS if
any changes are needed -*

Phil Ungari

ENGINEERING

DUKE POWER COMPANY
FOSSIL PRODUCTION DEPARTMENT
P.O. BOX 33189, 422 SOUTH CHURCH STREET
CHARLOTTE, N.C. 28242
(704) 373-4011



June 29, 1984

Mr. Gordon Layton
Environmental Engineer
Solid & Hazardous Waste Management Branch
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602

Subject: Flyash Landfill Permit Application
Belews Creek Steam Station, Walnut Cove, N. C.
File: BC-705.10

Dear Mr. Layton:

Attached are four copies of a permit application package for a landfill at Belews Creek Steam Station in Stokes County. The landfill site is adjacent to the NPDES-permitted ash pond, and all runoff from the site will be collected and discharged to the pond. Only flyash will be disposed of at this landfill. It is expected that landfilling will begin in late 1984.

If you require additional information, please contact David Roche at (704) 373-8775.

Very truly yours,

Buddy Davis
B. E. Davis, Manager
Fossil Technical Services

DPR:gw

Attachments

Book

85-03

Subject: Revision to Flyash Landfill
Permit Application Belews Creek
Steam Station

Oct. 8th, 1984

DUKE POWER COMPANY
FOSSIL PRODUCTION DEPARTMENT
P.O. BOX 33189, 422 SOUTH CHURCH STREET
CHARLOTTE, N.C. 28242
(704) 373-4011



Mr. Gordon Layton
Environmental Engineer
Solid & Hazardous Waste Management Branch
Division of Health Services
P. O. Box 2091
Raleigh, North Carolina 27602

Subject: Revision to Flyash Landfill Permit Application
Belews Creek Steam Station, Walnut Cove, N. C.
File: BC-705.10

Attached are four copies of a revised boundary plat for the proposed flyash landfill site at Belews Creek Steam Station, to be added to the permit application package. This revision is being made to include adjacent land that was not noted in the maps provided with the application.

Please call me at (704) 373-8775 if you have any questions concerning this revision.

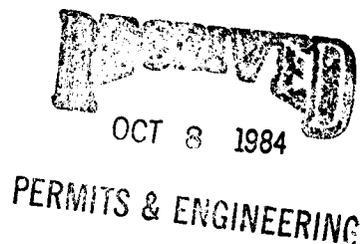
Very truly yours,

David Roche

D. P. Roche
Biologist
Fossil Environmental Compliance

DPR:gw

Attachments



ATTACHMENT 3

BELEWS CREEK

FLY ASH LEACHATE (ppb)

	<u>ASTM</u>	<u>EPA EP</u>	<u>EPA Limits</u>
pH	3.7	4.0	
Arsenic	500	<5	5,000
Barium	Not Determined	<500	100,000
Cadmium	100	<100	1,000
Chromium	115	<100	5,000
Cobalt	100	<100	
Copper	2050	600	
Iron	2000	300	
Lead	<1000	<1000	5,000
Manganese	200	100	
Mercury	Not Determined	<2	200
Nickel	300	200	
Selenium	50	<10	1,000
Silver	Not Determined	<100	5,000
Zinc	1050	300	

Source: Raba-Kistner Consultants



ATTACHMENT 4

DUKE POWER COMPANY
SPECIFICATIONS ON CLEARING, CONSTRUCTING,
OPERATING AND CLOSING
DRY FLYASH LANDFILL
AT BELEWS CREEK STEAM STATION IN STOKES COUNTY, N.C.

DUKE POWER COMPANY
DRY FLYASH LANDFILL

INDEX TO SPECIFICATIONS

General Provisions

<u>Section</u>		<u>Page</u>
1.0	Definitions	1
2.0	Project Location	1
3.0	Contract Work Description and Principal Work Features	1
4.0	Estimate of Quantities	2
5.0	Measurement of Quantities	2
6.0	Specifications and Exhibit	3
7.0	Lines and Grades	3
8.0	Property Use and Damage	3
9.0	Accidents and Accident Prevention	3
10.0	Contractor's Administration of Own Forces	4
11.0	Utility Services	4
12.0	Materials and Workmanship	4
13.0	Damages or Defective Material and Work	5
14.0	Delays and Difficulties	5
15.0	Additional and Changed Work	5
16.0	Cleanliness	5
	Detailed Provisions	
17.0	Clearing	6
18.0	Grubbing	6
19.0	Diversion and Care of Water	6

DUKE POWER COMPANY
DRY FLYASH LANDFILL

INDEX TO SPECIFICATIONS
Detailed Provisions (cont'd)

	<u>Page</u>
20.0 Earth Excavation	7
21.0 Disposal of Flyash in Landfill	8
22.0 Closure of Disposal Area	10
 <u>Appendix A</u>	
Erosion Control and Sedimentation Plan	14
 <u>Appendix B</u>	
Materials for Grassing Requirements	15

DUKE POWER COMPANY
SPECIFICATIONS FOR DRY FLYASH LANDFILL

GENERAL PROVISIONS

1.0 DEFINITIONS

The words and terms used in the Specification shall have the meanings given below:

- Owner: Duke Power Company, or its authorized representatives.
- Engineer: Duke Power Company's Vice President, Fossil Production Department or his authorized representatives.
- Inspector: The person or persons authorized by the Engineer to inspect the Contractor's work and materials.
- Contractor: Monier Resources, Inc. (MRI)
- Contract: Fly Ash Disposal Agreement dated September 1, 1983 between Duke Power Co and Monier Resources Incorporated.
- Specifications: All of the terms and conditions contained (1) in the General and Detailed Provisions of this Specification and (2) in the amendments and revisions which may be made to them, and (3) in all written agreements, made or to be made, pertaining to the method and manner of performing the work or to the quantity and quality of the material to be furnished.
- Drawings: All of the drawings attached to this Specification as Exhibit I, and those supplementary or additional drawings which the Engineer may issue later during work to clarify or further detail the contract drawings or work.

2.0 PROJECT LOCATION

The project site for the contract work is located at Belews Creek Steam Station in Stokes County, North Carolina. Belews Creek Steam Station is located on Secondary Road 1908, approximately 7½ miles east of Walnut Cove, N.C. Disposal Site and Monier Operating Area are shown on Exhibit 1.

3.0 CONTRACT WORK DESCRIPTION AND PRINCIPAL WORK FEATURES

The work to be performed by the Contractor shall consist of furnishing all labor, materials, equipment, construction plant, tools, supplies, transportation and all other goods and/or services required to perform the Contract.

The principal work features listed below are a general outline and do not in any way limit the responsibility of the Contractor to perform all work required by the Contract.

The principal work features are as follows:

- Clearing of Landfill site
- Grubbing of Landfill site
- Diversion and Care of Water
- Disposal of Flyash in the Landfill
- Closure of the Disposal Area

4.0 ESTIMATE OF QUALITIES

All quantities of work mentioned in the specifications are approximate and may vary considerably from those measured during the course of actual work for purposes of payment. Payment will be made for work as agreed upon in the Contract.

Listed below is the estimated quantity of flyash to be disposed in the landfill:

<u>Year</u>	<u>Tonnage</u>
1984	456,000
1985	390,000
1986	414,000
1987	360,000
1988	336,000
1989	300,000
1990	324,000
1991	360,000
1992	355,000

5.0 MEASUREMENT OF QUANTITIES

Within thirty (30) days after the end of each calendar month, the Contractor shall provide the Owner with the following documentation: Copies of the Contractor's weight slips from a certified scale for those trucks weighed and a disposal summary containing such information as the Owner may request for all flyash disposed of in the disposal site during the preceding month.

6.0 SPECIFICATIONS AND EXHIBIT

This Specification and Exhibit I will show, explain or indicate the method or manner of performing the work and the type or class of materials to be used. Any work or material shown or mentioned in either the Specification or Exhibit I and not specifically shown or mentioned in the other, shall be accomplished or furnished by the Contractor as if shown or mentioned in both.

Should disputes arise with respect to these Specifications or Exhibit I, or should discrepancies be found between two or more parts of the specification, or should there be questions relative to implications beyond specific descriptions, the Engineer's explanation and decision shall be final and binding.

7.0 LINES AND GRADES

The Contractor shall establish baselines and benchmarks pertinent to the work and will furnish or indicate location and limit marks, including slope stakes, necessary for construction of the project. All such marks and stakes shall be carefully preserved by the Contractor, and the Contractor shall be responsible for the construction of work to those lines and grades. Lines and grades are subject to field verification by the Engineer.

8.0 PROPERTY USE AND DAMAGE

The property on which the project is to be built is or will be controlled by the Owner. All of the Contractor's operations on the Owner's premises, including the storage of materials, shall be confined to areas authorized by the Engineer.

9.0 ACCIDENTS AND ACCIDENT PREVENTION

The Contractor shall at all times comply with the latest OSHA Safety Regulations for the safety of persons engaged in any sort of work or business on the project sites.

The Contractor's safety program shall be subject to periodic review by the Engineer. The wearing of hard hats, safety glasses with side shields and safety shoes by all persons in areas in which work is in progress is mandatory. The Contractor shall be responsible for and shall enforce the wearing of such safety equipment by all his personnel. The color code and material of construction for the hard hats will be determined by the Engineer.

All accidents involving injury to persons on the project sites or damage to property or equipment shall be reported immediately to the Engineer.

The Contractor shall furnish and maintain, at his own cost and expense and to the Engineer's satisfaction, all necessary guard fences, barricades, watchman and lights, and such other safeguards and facilities for protection of the work as may be required. In addition, the Contractor shall take all necessary precautions for the safety of his employees or others who may be on the work site and for the protection of property on the work site. All work performed by the Contractor on the Owner's premises shall comply with the latest revision

of Safety and Health Regulations for Construction (29 C.F.R. 1926). The Contractor shall observe all rules and regulations of the State Board of Health, and all local health officials and shall take such precautions as are necessary to avoid unhealthy conditions. When explosives are used in the prosecution of the work, the Contractor shall observe the utmost care so as not to endanger life and property, and, whenever directed by the Engineer, the number and size of charges shall be reduced. All explosives shall be stored in a secure manner, and all such storage places shall be marked clearly "Dangerous - Explosives."

10.0 CONTRACTOR'S ADMINISTRATION OF OWN FORCES

The Contractor shall place in charge of the work on a daily basis a competent and reliable superintendent, who shall have the authority to act for the Contractor and who shall be accountable to the Engineer. The Contractor shall, at all times employ labor and equipment sufficient to accomplish the several classes of work to full completion in the manner and time specified. All personnel engaged in special or skilled work shall have sufficient experience in such work to properly and satisfactorily perform and operate the equipment involved.

Whenever the Contractor or the Contractor's superintendent is not present on any part of the site, the Contractor shall designate a responsible supervisory employee to interface with the Engineer.

The Contractor agrees to transfer any employee, agent or subcontractor working in the Contractor's operating area or disposal site if so requested by the Engineer, provided the Engineer has reasonable cause for such request.

11.0 UTILITY SERVICES

The Contractor shall make all arrangements necessary to secure and use any utility service, such as water, fuels, electric power and other similar or related services required for performance of the Contract. Access to utilities shall be provided by the Owner. The Owner shall be responsible for obtaining a burning permit when required.

12.0 MATERIALS AND WORKMANSHIP

The Contractor is required to furnish all materials indicated or mentioned in the Specifications, or shown on Exhibit I and any other material which is or may become necessary for construction and completion of the project, except for certain materials the Owner will furnish as designated in these Specifications or noted on Exhibit I.

The quality of all workmanship of any kind or for any purpose shall be in accordance with the best engineering practice and highest industry standards and shall be satisfactory to the Engineer.

13.0 DAMAGED OR DEFECTIVE MATERIALS AND WORK

In the event the Contractor's work does not conform to the Specification or Drawings (including any amendments or changes thereto) or is defectively or improperly performed, and in addition to any other remedies the Engineer may have, the Contractor will proceed expeditiously to modify and correct such work to the Engineer's satisfaction at no additional charge.

If any part of the work is damaged in any manner, except through the fault of the Owner, or should defects develop during construction or after completion but prior to final written acceptance of the work, the Contractor shall remedy such damage or defects in a manner satisfactory to the Engineer. Work to remedy damage or defects, except as noted and authorized by the Engineer shall be done at the expense of the Contractor and there will be no compensation thereof.

If any material considered by the Engineer to be defective and unsuitable is used by the Contractor during construction or after completion but prior to final written acceptance of the work, the Contractor shall remove such material and replace in a manner with materials satisfactory to the Engineer. Work to remove and replace unsuitable or defective materials, except as noted and authorized by the Engineer, shall be done at the expense of the Contractor and there will be no compensation thereof.

14.0 DELAYS AND DIFFICULTIES

The Owner is not responsible for any damages, hindrances, difficulties or delays arising from rain, storms, floods, and other types of weather, no matter how extended the rising of creeks and rivers or filling of impoundments may be, or from similar contingencies. Contractor shall bear any expense caused by these damages, hindrances, difficulties or delays and there will be no compensation thereof.

15.0 ADDITIONAL OR CHANGED WORK

The Owner may make such written additions, deletions or alterations in the plans of construction, or in the quality of work, as he may consider necessary or desirable during the progress of the work to complete fully and acceptably the proposed work, provided that such written alterations are agreed upon by both the Owner and Contractor. Any changes shall have the prior written approval of the Engineer.

16.0 CLEANLINESS

The Contractor shall maintain the work and project grounds free from rubbish, debris and waste materials during all phases of the work. All trucks hauling flyash to the landfill shall be covered to prevent ash from spilling out and creating a nuisance. The Contractor shall make daily inspections of the haul route to locate and cleanup any spillages of ash that may occur.

DETAILED PROVISIONS

17.0 CLEARING

17.1 SCOPE OF WORK

This item refers to the felling, cutting and removal of standing timber, underbrush and fallen trees from any areas on or near the project site as may be designated by the Engineer or shown on Exhibit I.

17.2 SPECIFICATIONS

Salable timber and pulpwood, if any, shall be cut and stockpiled as directed by the Engineer and will remain the property of the Owner. Any other trees or underbrush may be cleared by means of bulldozers or other equipment and any such materials shall be burned in small piles as directed by the Engineer. (See Section 11 for burning permit).

18.0 GRUBBING

18.1 SCOPE OF WORK

This item refers to the grubbing and disposal of grubbed material from the earth fill foundations, borrow pits, and any other areas within the landfill.

18.2 SPECIFICATIONS

The Contractor shall remove logs, stumps, roots and similar materials, and all stones of more than 12" in maximum dimension as directed by the Engineer.

Logs, stumps and other material shall be burned in small piles within the disposal area. The Engineer will direct disposition of materials that cannot be burned. (See Section 11 for burning permit).

19.0 DIVERSION AND CARE OF WATER

19.1 SCOPE OF WORK

This item consists of all work required to protect the work from flooding during the construction of the principal features as defined in Section 3. In addition, this item also includes the work necessary to comply with the N. C. Sedimentation Pollution Control Act of 1973. See the attached Appendix A for details of sedimentation control plan. This item also includes any diversion or impoundment of water for the convenience of the Contractor.

19.2 SPECIFICATIONS

Required cofferdams designed by the Contractor shall be provided as shown on Exhibit I or as directed by the Owner. All excavation work required shall be performed in accordance with Sections 21.2 or as directed by the Owner. If pumping is required to protect the cofferdams from overtopping as indicated by

the Owner, the Contractor shall submit a dewatering plan to the Owner for approval, indicating the number, type and capacity of pumps to be operated to meet the pumping capacity required.

As shown on Exhibit 1, a minimum of four (4) cofferdams will be required, one for each cove. Prior to landfilling ash, the cofferdam must be in place for the drainage area where ash is to be landfilled. The minimum elevation of the top of the cofferdam is to be elevation 770'. The Contractor shall be responsible for all repairs, maintenance or replacement of the cofferdams as required.

Designs of cofferdams, culverts, ditches, or other features which are utilized for the diversion or impoundment of water must be approved by the Owner prior to installation. The function of the cofferdams is to control water runoff from the area during disposal site construction and ash disposal operations. The cofferdams also function as the final toe of the landfill upon closure and to prevent ash, silt or other material from emptying into the ash basin. Ponded water can also be used in dust suppression operations.

No ponded water is to be pumped into the ash basin unless prior written approval is provided by the Owner to the Contractor. The impoundment shall be designed to retain the 1 in 10 year frequency storm with adequate freeboard provided for stability of cofferdam. The Contractor will provide emergency overflow features in the design of the cofferdams. The Contractor shall implement the various features of the sedimentation control plan (Appendix A) as shown on the drawing and as directed by the Engineer.

20.0 EARTH EXCAVATION

20.1 SCOPE OF WORK

This item consists of earth excavation for the following:

- Cofferdam Foundations
- Fill for Final Cover over ash

In addition, this item shall include any other work requiring earth excavation as shown on the drawings or that may be approved by the Engineer.

The term "Earth Excavation" shall be considered to include the removal, hauling and disposal of materials required to be excavated or as directed by the Engineer.

20.2 SPECIFICATIONS

All excavation for fill to be used for final cover over ash is to occur within the boundaries of the dry ash storage area. The minimum volume of excavation required will be to provide the required depth of earth fill to provide required cover over the ash. A minimum of one (1) foot of soil shall be provided on horizontal surfaces and a minimum of two (2) feet of soil shall be provided on slopes steeper than five percent (5%) for seeding. The excavated soil shall be stockpiled within the disposal area for use as final cover when needed.

Foundation preparation for the cofferdams shall consist of removal to the depths necessary of any materials not suitable for foundation. This includes all vegetative cover, organic material, and alluvial materials. Irregularities in soft soil or decomposed rock shall be exposed by dental excavation. Holes, irregularities, test pits, etc., shall be filled with earth fill (reference Subsection 22.2.1) or lean concrete prior to emplacement of main embankment. Any overhanging or near-vertical rock surfaced shall be treated with lean concrete to achieve a 1:1 slope prior to placement of fill against the affected surface.

21.0 DISPOSAL OF FLYASH IN LANDFILL

21.1 SCOPE OF WORK

This item consists of all work required to transport the flyash from the Monier Operating Area to the landfill, disposal procedures in the landfill, procedures for dust control, and landfill testing requirements.

21.2 SPECIFICATIONS

All flyash destined for the landfill shall be dampened using conventional pre-wetter systems to mix the flyash and water. The flyash shall then be loaded at fifteen percent (15%) to twenty percent (20%) moisture content into large vehicles. These vehicles shall be operated in a prudent manner and in accordance with speed limits and rules prescribed by the Owner. The Contractor shall use the route shown in Exhibit I for transporting flyash. Trucks shall make a full circle within the Contractor's operating area and proceed along the haul route to the landfill. Ash will be disposed in the landfill in the sequence shown on Exhibit I. i.e., Zone 1 is first, followed by Zone 2, Zone 3 and then Zone 4.

Prior to depositing flyash within the landfill the following shall be completed:

1. Clearing, grubbing and burning of logs, stumps, etc. within the active disposal zone.
2. Excavation and stockpiling of earth fill for use of cover.
3. Installation of cofferdams.
4. Installation of ditches, culverts and underdrainage systems as necessary to prevent surface runoff or ground water from interfering with placement of compacted flyash.

Flyash shall be placed and compacted in twelve (12) inch lifts or less. Compaction throughout the lift shall attain not less than ninety percent (90%) of the Standard Proctor Density, ASTM D 698-78, Method C. All compaction shall be done with moisture content of the flyash between five percent (5%) drier and five percent (5%) wetter than optimum moisture. The maximum height of ash stored in the landfill is shown on Exhibit I.

An adequate well or surface water source shall be maintained so that the Contractor can control and suppress dust by spraying deposited flyash with water.

The Contractor shall perform at least one (1) field density test on the compacted flyash for every two thousand (2000) tons of flyash placed in the landfill. Test results shall be furnished to the Engineer. The Contractor shall insure integrity of the landfill slopes, by insuring slopes are dressed and compacted. Grass cover shall be provided as early as possible and in accordance with NC Sedimentation Control Laws.

21.2.1 MOISTURE CONTROL

All compaction shall be done at moisture contents within the range given in the Specification. Regardless of source, materials that are too wet to permit proper compaction shall not be placed and compacted on an active disposal area until the moisture content is satisfactorily reduced. When material is too dry, each layer of the fill shall be sprinkled prior to its compaction. This water shall be worked into the material, by harrowing or otherwise, until a uniform distribution of moisture has been obtained. The amount of water so applied shall be sufficient to dampen the material to the required moisture content, and its application shall be so controlled that no free water will appear on the surface during the rolling process or afterwards. Should too much water be added to any part of the embankment so that the material is too wet to obtain the desired compaction the rolling and all work on that section of the embankment shall be delayed until the moisture content of the material is reduced to within the specified limits. Water jets shall not be directed at the embankment with enough force to cause separation of materials. If it is found impractical to add sufficient moisture to materials on the fill, the materials shall be prewetted at the source. The Contractor shall have an adequate supply of water available at all times.

After dumping, the materials shall be spread by bulldozers, motor graders, scrapers, pans, or other approved means in approximately horizontal layers over the areas to be filled. Unless otherwise directed, the thickness of the layers, prior to compaction with tamping type rollers, shall be not more than 12". After a layer of fill material has been dumped and spread, it shall be mechanically blended if required, to break up and blend the fill materials, or to obtain uniform moisture distribution. Each successive layer shall be compacted as outlined in the specification.

21.2.2 PLACEMENT OF FILL MATERIAL

As soon as practical after starting construction of a fill, the central portion thereof shall be built and maintained slightly higher than the sides so that the top of the fill will drain freely toward the side slopes. The transverse grades on top of the fills shall not exceed three percent. The fill surfaces shall be maintained in a free draining condition throughout construction.

When the fills have been otherwise completed, the Contractor shall dress the slope surfaces to the required limits of fill as shown on Exhibit I.

22.0 CLOSURE OF DISPOSAL AREA

22.1 SCOPE OF WORK

This item consists of all work required to close the landfill to the Owner's standard: it includes;

- Placing earth fill over ash
- Grassing
- Drainage Ditches
- Closure and Fill of Poned Water in Front of Cofferdam

It is important to note that closure of the landfill shall be an ongoing process. Slopes shall be dressed and compacted to prevent erosion. Drainage ditches shall be placed to insure integrity of the landfill slopes. Earth cover shall be placed and compacted on the final slopes immediately after ash is placed and compacted. Grassing of slopes is to be accomplished as given in the schedule provided in Appendix B.

22.2 SPECIFICATIONS

The final geometry of the landfill can be seen in the typical cross section shown on Exhibit I. The particular features that the Contractor must implement can be seen on the cross section and include:

Landfill shall be completely grassed with minimum soil cover depths outlined in Section 20.2.

The maximum elevation of the landfill shall be El. 890'.

The slopes shall be 3 horizontal to 1 vertical.

The landfill shall be benched at 40 feet elevation levels.

The pond in front of the cofferdam shall be pumped out and filled with ash.

Adequate drainage ditches shall be reviewed and approved by the Owner. Minimum number and location of drain ditches are shown on Exhibit I.

The toe of the ash fill around the sedimentation pond up to the maximum pond elevation shall be stabilized with four percent (4%) cement by weight.

The landfill shall be adequately sloped for drainage.

22.2.1 PLACEMENT AND QUALITY OF EARTH FILL OVER ASH

The requirements for compacted earth fills are as follows:

1. Range of moisture contents; between five percent drier and five percent wetter than optimum.

2. Minimum percent of Standard Proctor Density; 90.

The following materials shall not be placed in the fill included in this item:

Rocks larger than 12" in maximum dimension, excessively wet soil, logs, brush, roots larger than 1" in diameter, sod, perishable materials, snow, ice, frozen earth, or any other materials which are disapproved by the Engineer.

The Contractor shall excavate and remove from the fills, after its placement therein, material which the Engineer considers unsuitable. Such unsuitable material shall be disposed of in spoil areas shown on Exhibit I.

For standards on moisture, control reference Section 21.2.1, for standards on placement of earth, cover reference Section 21.2.2.

22.2.2 GRASSING

Grassing shall consist of furnishing all that is required to establish and maintain a stand of grass adequate to protect earth slopes and other graded surfaces against erosion. Grassing shall be done on all slopes not otherwise protected and upon any graded surfaces designated by the Engineer. The Contractor's services required in connection with grassing slopes and surfaces shall include but not be limited to the following:

Finished grading; soil preparation; furnishing and applying ground limestone, fertilizer, grass seed, and mulch; watering; mowing; and any other maintenance.

Topsoil shall be applied to surface whenever necessary to aid in obtaining grass cover. Topsoil shall be obtained from stockpiles and shall be reasonably free from roots, rocks and other objectionable material. Surfaces to be topsoiled shall be loosened to a depth of 2" prior to application. The topsoil shall be spread over areas to a thickness adequate for grassing and shall be raked to obtain smooth surfaces.

The ground limestone (calcium carbonate) shall comply with applicable State Lime Law. At least 50 percent shall pass a 200 mesh sieve; at least 90 percent shall pass a 100 mesh sieve; and 100 percent shall pass a 10 mesh sieve. Total carbonates shall not be less than 88 percent. The ground limestone shall be distributed evenly, by machine, over all areas to be seeded. It shall be worked into the top 3" of the soil.

Commercial mixed fertilizer shall be used and shall comply with the applicable state Fertilizer Laws. The fertilizer shall be selected based on soil test results. Soil test results shall be furnished to the Engineer. Fertilizer shall be distributed evenly by machine over all areas to be seeded or as otherwise directed by the Engineer, and shall be worked into the top 3" of the soil.

The grass seed used shall comply with the applicable state Seed Law mixed in the designated portions by weight.

Grass seed shall be sown preferably in the fall during September and October or in the spring during March, April and May, or at such other times as are approved by the Engineer. All seeding shall be done in dry, or moderately dry, soil and at times when the wind does not exceed a velocity of approximately five miles per hour.

All areas to be seeded shall be prepared by scarifying or otherwise loosening to a depth of 4" and shall be raked to true lines, free from all unsightly variations, bumps, ridges, or depressions. All uneven and rough areas shall be raked and dressed to obtain smooth surfaces suitable for later mowing and maintenance. All sticks, stones, roots or other objectionable material which might interfere with the movement or action of mowing equipment or with the formation of a finely pulverized seed bed shall be removed from the soil. The soil shall then be raked to a smooth even-draining surface and compacted with an approved roller as directed by the Engineer. Any depressions which occur shall be regarded and rerolled until a satisfactory grade is obtained.

Seed shall be sown in such a manner that a uniform stand will result.

The Contractor shall properly water and otherwise maintain all seeded areas until final acceptance by the Engineer. Any areas which fail to show a uniform stand shall be reseeded, at the Contractor's expense, and such reseeded shall be repeated until all affected areas are covered with grass. All grass growth shall be fertilized in the spring and fall for maintenance. Lime shall be applied as needed on grass based on soil test reports.

The Engineer reserves the right to reject on or after delivery seed, limestone and fertilizer which do not, in the Engineer's opinion, meet the requirements of these Specifications.

All grass seed shall be delivered showing weight, analysis and name of brand.

Slopes of site soil shall be firm to eliminate possibility of slides during wet weather. Surface shall be rough enough to hold seed and fertilizer from slipping off. Topsoil shall be blended with site soil to avoid discontinuity within layers.

Apply limestone prior to Stage 1 application.

Stage 1 - Load tank with water, seeds, fertilizer, and wood - cellulose pulp. Churn into a slurry and spray on slope.

See Appendix B for planting dates and materials for grassing requirements.

Fertilizer shall be applied as recommended in the soil test report, and if, after commencement of earthwork, the Contractor's experience or development of more specific information about site soil conditions indicate needed changes or adjustments in the above system, such changes may be made subject to the approval of the Engineer.

22.2.4 CLOSURE OF LANDFILL

When the landfill reaches capacity, the ponded water shall be removed from the sedimentation ponds. If the Owner provides written approval, the Contractor may pump the water into the ash basin. The empty pond shall be filled with ash and covered with soil as specified in Subsection 22.2.1, and grassed as specified in Subsection 22.2.2. Reference the typical cross section for details shown on Exhibit I.

FB/arr
CE51103A

APPENDIX A

EROSION AND SEDIMENT CONTROL

1. All of the landfill excavation runoff and runoff from the landfill shall be routed to sedimentation ponds formed by installing cofferdams as shown on Exhibit I. These ponds shall prevent loss of sediment into the ash basin.
2. Silt barriers shall be installed and maintained along the slopes of the sedimentation ponds, above maximum level to prevent the ponds from filling with silt from construction runoff. At the conclusion of the work, the trapped silt shall be removed.
3. Properly designed ditches, designed by the Contractor and reviewed by the Owner shall be provided along all slopes to insure integrity of the slope and prevent flyash from entering the ash basin.
4. Soil cover shall be placed completely over the landfill and grassed.
5. Stockpiled soil for cover shall have silt fences downstream of soil to insure soil is retained. The spoil pile shall have silt fences installed downstream of pile. Any runoff from the spoil pile shall go into the ash basin.
6. The erosion and sedimentation plan shall adhere to the guidelines established by the NCDNER, in "The Sedimentation Pollution Control Act of 1973."

APPENDIX B
 MATERIALS FOR GRASSING REQUIREMENTS

<u>Schedule No.</u>		<u>Per Acre</u>	<u>Planting Date</u>
	Agriculture Pulverized Limestone	Note 3	1-1 to 12-31
<u>STAGE I:</u>			
	Fertilizer	Note 3	1-1 to 12-31
	Sericia Lespedeza (Scarified)	25 lbs.	1-1 to 8-15
	Sericia Lespedeza (Unhulled - Unscarified)	50 lbs.	8-15 to 12-31
	Wood Cellulose Pulp (Conwed, Spra-Mulch, or equal)	500 lbs.	1-1 to 12-31
	Accompanying Seed Rye	25 lbs.	11-1 to 2-1

Load all materials into water filled tank, agitate until a smooth slurry is formed, then spray on slope.

STAGE II:

Erosion control fabric		1-1 to 12-31
Excavated slopes above the limits of the Erosion Control Fabric		1-1 to 12-31
Blown straw with asphalt tack coat		1-1 to 12-31
Other areas not listed above: 3:1 or flatter		1-1 to 12-31
Wood cellulose pulp	500 lbs.	1-1 to 12-31
Slopes Steeper than 3:1		1-1 to 12-31
Wood cellulose pulp	1000 lbs.	1-1 to 12-31

Notes:

1. Plain straw with tack coat is an acceptable substitute for wood cellulose pulp.
2. Erosion control fabric will be excelsior blanket with netting on two sides to facilitate placement.
3. Quantity shall be as recommended in the soil test report.

FLYASH LANDFILL PERMIT APPLICATION
BELEWS CREEK STEAM STATION
WALNUT COVE, N. C.

The following information is provided to address the application requirements for sanitary landfills under 10NCAC10G.0504. Some of these requirements do not apply to the flyash landfill proposed for Belews Creek Steam Station.

.0504 (1) (a) Property map

A map of the property owned by Duke Power Company at Belews Creek Steam Station is provided as Attachment 1. The dwellings (marked with an X) shown along County Roads 1908 and 1904 near the site were present prior to the construction of Belews Creek Steam Station and are no longer in existence.

(1) (b) Site plan and groundwater sources

Attachment 2 is a site plan showing the location of the drinking water well at the station. There are no other groundwater users or sources in the vicinity of the proposed landfill.

(1) (c) Geological and hydrological study

Because the landfill site will only receive flyash (which is a non-hazardous material based on Extraction Procedure leach test results given in Attachment 3), and the landfill will be located adjacent to the NPDES-permitted ash pond which will receive all surface drainage from the landfill, a variance from the geological and hydrological study requirements is requested under Section .0205.

(1) (d) Design plan

Specifications for cleaning, constructing, operating, and closing the flyash landfill are provided as Attachment 4.

(1) (e) Zoning approval

The landfill site is on Belews Creek Steam Station property and is already zoned for industrial use.

(1) (f) Siting standards

The proposed landfill is not located in a floodplain and does not involve any critical habitat. No putrescible waste shall be disposed of at this site. The access road to the site will be controlled by a locked gate and most of the site is fenced. All surface drainage from the site will be discharged to the NPDES-permitted pond and not to receiving waters. The site is over 500 ft. from private dwellings and drinking water wells. Erosion will be controlled at the site as described in Attachment 4, Appendix A.

Flyash Landfill Permit Application
Belews Creek Steam Station, Walnut Cove, N. C.
Page 2

.0504 (2) Construction plan

Attachment 4 includes details on grading, surface water and erosion control, sequential use of the site, and final elevation and closure of the site. A map and typical cross-section of the landfill are provided. The construction plan does not address soil boring and groundwater monitoring locations for the site; a variance under Section .0205 is requested from those requirements.

Duke Power Company
Wachovia Center
P.O. Box 1007
Charlotte, N.C. 28201-1007



DUKE POWER

November 27, 1992

Jeff Rogers
North Carolina Solid Waste Management Division
Winston-Salem Regional Office
310 East Third Street Suite 200
Winston-Salem, N.C. 27106

SUBJECT: Belews Creek Steam Station Ash Landfill (85-03)
Sanitary Landfill Annual Report
File: GS - 707.25

Dear Mr. Rogers:

Please find attached the completed Sanitary Landfill Annual Report form for the Belews Creek Ash Landfill (85-03) for the past report period (7/1/90 - 6/30/91). Please note that the tonnage data provided on the report are actual weights.

If you have any questions, please contact me at 704-373-2647.

Larry D. Evans, Scientist
Environmental Protection

LDE/A29213

Attachment

bc: E. B. Whitt
M. E. Hollis
J. R. Hendricks
J. C. Burnette
M. A. Ruhe
L. S. Harper
Staff (route)



DUKE POWER
MARSHALL STEAM STA.
18-04
(CATAWBA Co.)

BELEWS CREEK STEAM STA.
85-03

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

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

September 10, 1992

William L. Meyer
Director

Mr. Phil R. Hammond
Fossil Environmental Compliance
Duke Power
P.O. Box 33189
Charlotte, N.C. 28242

RE: Notification Of Semi-annual Sampling Dates For Landfills

Dear Mr. Hammond,

This past January a letter was mailed to all landfill owner/operators informing them that the Solid Waste Section will be requiring semi-annual ground and surface water monitoring beginning January 1, 1993. All landfill owner/operators were requested to notify the Section prior to July 1, 1992, of the months they will be performing each of their semi-annual sampling episodes for the 1993 calendar year. Please note details in the letter of January 10, 1992 that is enclosed with this letter.

As of this date the Solid Waste Section has no record of the proposed sampling dates for next year for your facility. Please notify the Solid Waste Section in writing immediately of the two months you have chosen for sampling this coming year. A response should be received in our office by October 15, 1992.

If you have any questions regarding this request or the water quality monitoring program required at sanitary landfills in North Carolina, please contact the Solid Waste Section at (919) 733-0692.

Sincerely,

A handwritten signature in cursive script that reads "Bobby Lutfy".

Bobby Lutfy
Hydrogeologist
Solid Waste Section

cc: Julian Foscue
Richard Doby
Attachment

Duke Power Company
Wachovia Center
P.O. Box 1007
Charlotte, N.C. 28201-1007

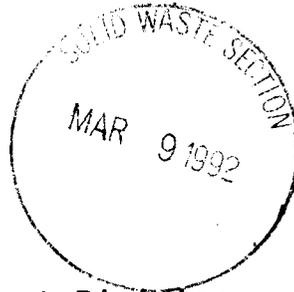
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85-03
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DUKE POWER

February 28, 1992



Jeff Rogers
North Carolina Solid Waste Management Division
Winston-Salem Regional Office
310 East Third Street Suite 200
Winston-Salem, N.C. 27106

SUBJECT: Dan River Steam Station Demolition Landfill (79-B)
Belews Creek Steam Station Ash Landfill (85-03)
Sanitary Landfill Annual Reports
File: GS - 707.25

Dear Mr. Rogers:

Attached are copies of cover letters mailed to you recently concerning submittal of the Sanitary Landfill Annual Report for the referenced landfills. These cover letters were inadvertently dated November 27, 1992. The correct date should have been February 27, 1992. Please make the necessary changes to your copies and/or files.

If you have any questions, please contact me at 704-373-2647.

A handwritten signature in cursive script that reads "Larry D. Evans".

Larry D. Evans, Scientist
Environmental Protection

LDE

Attachments

85-03
STOKES

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



April 19, 1994

MEMORANDUM

TO: Landfill Operators

FROM: Dexter R. Matthews, Chief *DRM*
Solid Waste Section

SUBJECT: Recordkeeping Requirements for MSWLFs

This is to remind all MSWLF facility operators that certain elements of transition plans for existing facilities are included in required recordkeeping effective April 9, 1994. These elements and other required records must be kept at the facility and available for inspection by section personnel.

For your convenience, I am enclosing a list of the record keeping requirements for MSW Landfills.

OPERATING RECORD INCLUDES:

1. Outline of waste screening program for detecting and preventing disposal of hazardous waste, liquid waste, P.C.B. waste, and banned items.
2. Records of screening inspections.
3. Outline of training of facility personnel to recognize liquid waste, hazardous waste, P.C.B. waste and banned items.
4. Waste determination records.
5. Amounts by weight of solid waste received at the facility to include source of generation.
6. Gas monitoring results and any remediation plans required. (Recommend written description of monitoring program.)
7. Any demonstration, certification, finding, monitoring, testing, or analytical data required by rules .1630 through .1637 of this section. (see attachment)
8. Any monitoring, testing, or analytical data as required by rule .1627 of this section.
9. Any cost estimates and financial assurance documentation required by Rule .1628 of this section. (see attachment)
10. Any demonstration that a site located within 5,000 ft. of an airport used by only piston powered aircraft or within 10,000 ft. of a runway used by turbine powered aircraft does not pose bird hazard to aircraft as required by rule .1622(1)(C) of this section.

OTHER REQUIRED RECORDKEEPING

1. Contingency Plan.
2. Records required by 40 CFR 61 (asbestos rules).
3. Scrap Tire Certification Forms (scrap tire collection, processing and disposal sites).
4. Operation Plan.
5. Leachate Management Plan .1626(12) (sites with leachate collection system only).

6. Inspection reports of above ground leachate storage tanks (if applicable) .1680(C)(5).
7. Inspection reports of underground leachate storage tanks (if applicable) .1680(D)(5).
8. Records of all monitoring information required by the Permit .1604(2)(K)(ii).

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



February 18, 1994

Inspection Checklist For Rules .1630 - .1637

- .1631(b)(1) Documentation from the Division of approval for the design, installation, development, and decommission of any monitoring well or piezometer.
- *.1631(d)(2) A copy of the approved monitoring plan, including information on the number, spacing, location, and design of the monitoring wells.
- *.1632(a) A copy of the approved ground-water sampling and analysis plan, including procedures and techniques for: sample collection, sample preservation and shipment, analytical procedures, chain of custody, and quality assurance and quality control.
- *.1632(j) For each sampling event, a report that includes all information from each sampling event, including: field observations, field data, laboratory data, statistical analysis, sampling methodologies, QA/QC data, ground-water flow directions and rates for each monitoring well, and for each well any constituents that exceed groundwater standards or show a statistically significant increase over background levels.
- .1633(c)(1) A notice indicating which constituents have shown statistically significant changes from background levels.
- .1633(c)(3) A report documenting any demonstration that statistically significant increases resulted from error in sampling, analysis, statistical evaluation, or natural variation in ground-water quality or that a source other than a MSWLF unit caused the contamination.

- .1634(d)(1) A notice identifying the Appendix II constituents that have been detected.
- .1634(d)(2) A report from each sampling event.
- .1634(g) A notice if one or more Appendix II constituents are detected at statistically significant levels above the approved ground-water protection standards in any sampling event.
- .1634(g)(2) A report documenting any demonstration that statistically significant increases resulted from error in sampling, analysis, statistical evaluation, or natural variation in ground-water quality or that a source other than a MSWLF unit caused the contamination.
- .1636(a) Any permit modification necessary to document the selection of remedy based on the results of the corrective measures assessment.
- .1637(c)(4) Any report justifying alternative (corrective) measures.
- .1637(f) A report documenting that the (corrective action) remedy has been completed.

NOTE: The need for most of this information is based upon different stages of ground-water investigation and will not be required for all facilities. Initially, all facilities will be responsible for having an approved monitoring plan, .1631(d)(2), an approved sampling and analysis plan, .1632(a), and reports for each sampling event, .1632(j). The monitoring plan and sampling and analysis plan are part of the Transition Plan due by April 9, 1994. The initial sampling report is due by October 9, 1994.

* Initially required

FINANCIAL ASSURANCE CHECKLIST

Cost Estimate For Closure [.1628(b)(1)]

Financial Assurance For Closure (one of the following)

- Trust Fund [.1628(e)(1)(A)]
- Surety Bond [.1628(e)(1)(B)]
- Letter of Credit [.1628(e)(1)(C)]
- Insurance [.1628(e)(1)(D)]
- Local Government Financial Test [.1628(e)(1)(F)]
- Capital Reserve Fund [.1628(e)(1)(I)]

Cost Estimate For Post-Closure Care [.1628(c)(1)]

Financial Assurance For Post-Closure Care (one of the following)

- Trust Fund [.1628(e)(1)(A)]
- Surety Bond [.1628(e)(1)(B)]
- Letter of Credit [.1628(e)(1)(C)]
- Insurance [.1628(e)(1)(D)]
- Local Government Financial Test [.1628(e)(1)(F)]
- Capital Reserve Fund [.1628(e)(1)(I)]

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



September 26, 1996

Mr. Grayling Vandervelde
Duke Power
1339 Hagers Ferry Road
Huntersville, NC 28078

Re: Preliminary Evaluation, Duke Power Industrial Landfill, Stokes County,
[REDACTED]

Dear Mr. Vandervelde:

The North Carolina Division of Waste Management, Solid Waste Section (Section) has completed its preliminary evaluation of the Compliance Boundary and Modeling Plan for the above referenced facility submitted by Duke Power. As of this time, Duke Power is in compliance with 15A NCAC 2L groundwater standards. The Section will require the following additional information in order to make a final determination with respect to the facility's operations past January 1, 1998.

Future Facility Development

The submittal does not indicate what the facility's future development plan will be beyond January 1, 1998. A Construction Plan detailing the continued development will need to be submitted in order to continue operating for 5 years after January 1, 1998. Submit a drawing showing the 5 year development from 1998 to 2003.

If you need further clarification or have any additional questions, please feel free to contact me at (919) 733-0692, extension 262.

Sincerely,

Susan Leistiko
Environmental Engineer
Solid Waste Section

cc: Julian Foscue, SWS
Hugh Jernigan, SWS

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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. Grayling Vandervelde
Duke Power
1339 Hagers Ferry Road
Huntersville, NC 28078

RE: Status of Duke Power Industrial Landfill, Permit Number 85-03, Stokes County

Dear Mr. Vandervelde:

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. Vandervelde
January 18, 1996
Page 2

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.

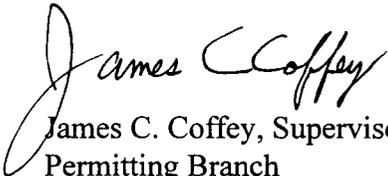
Mr. Vandervelde
January 18, 1996
Page 3

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
Julian Foscue
Hugh Jernigan

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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



June 19, 1997

Mr. Larry Evans
Electric System Support
Duke Power Company
13339 Hagers Ferry Road
Huntersville, NC 28078-7929

Subject: Coal fly ash structural fill in an abandoned sand filter system at Duke Power Company's Belews Creek Steam Station site in Stokes County. The project is scheduled to begin upon receipt of this acknowledgement (approximately June 19, 1997).

Dear Mr. Evans:

We are in receipt of your June 6, 1997 notification for constructing the subject structural fill estimated to be completed by June 30, 1997. The information submitted satisfies the requirements for coal ash structural fill activities as set forth in Solid Waste Management Rules 15A NCAC 13B Section .1700 concerning beneficial use of coal combustion by-products.

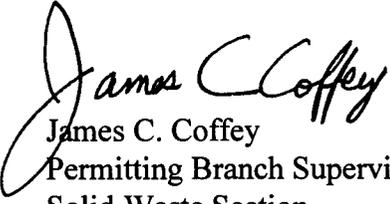
As previously agreed to between Duke Power and the Solid Waste Management Division, Duke Power is accepting the responsibility of informing the landowner(s) of their responsibility should any groundwater contamination occur due to structural fill activity. In the subject project, Duke Power is the landowner and this communication is automatic.

Please understand that the Division of Waste Management is continuing to interpret the .1700 Rules as in the past and has not altered its interpretation of the rules even though your company is insisting that the Division alter its position on this matter. Therefore, this project is to be treated by the Division the same as previous projects have been treated. This particular project will not require recordation since it involves less than 1,000 cubic yards of coal combustion by-product. However, when Duke Power issues the required closure certification upon completion of the project, the P.E. signing and sealing the certification will be certifying that this project was done according to Section .1700 Rules in its entirety.

Mr. Larry D. Evans
June 19, 1997
Page 2

Please telephone me at (919) 733-0692, ext. 255 or Bill Hocutt at ext. 260 if you have any questions.

Sincerely,


James C. Coffey
Permitting Branch Supervisor
Solid Waste Section

cc: Bill Hocutt
Hugh Jernigan
Julian Foscue

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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



June 13, 1997

Mr. Grayling Vandervelde
Duke Power
1339 Hagers Ferry Road
Huntersville, NC 28078

RE: Coal Ash Model, Duke Power Industrial Landfill, Stokes County, Permit No. 85-03

Dear Mr. Vandervelde:

In a previous letter dated February 26, 1997, the Solid Waste Section (Section) notified all owners and operators of coal ash monofills that the Section would study the possibility of developing a simple, generic model to demonstrate compliance with the requirements of Rule .0503(2)(d)(ii)(A). The study has been completed and the conclusion reached that the development of such a model is not possible. This conclusion is based on the following reasons:

1. Infiltration through coal ash monofills is incompletely understood and dependent on several factors including the self-cementing properties of the ash (which is dependent on ash type), operation (geometry, disposal rate, compaction, intermediate cover, vegetation, mixing of ash types, fracture of shallow self-cementing horizons) and climate.
2. Leachate concentrations of metals to be expected in water leaving the ash pile are not known very well either. They might depend on the infiltration paths and on ash type. They probably evolve through the life of the landfill. And they may differ significantly from concentrations measured in a variety of laboratory studies.
3. Existing data on subsurface characteristics are insufficient for all ash monofills in North Carolina to allow construction of even simple models.
4. Existing groundwater detection monitoring systems at all of the sites do not provide enough useful information to calibrate or validate any model.
5. There is no data concerning the sorptive capability of saprolite in the Southeastern U.S.

Consequently the previously required submittal must include a final cap system designed to ensure compliance with the ground water standards as demonstrated by modelling methods acceptable to the Section.

The previously required submittal from the February 26, 1997 letter included the following:

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Mr. Vandervelde
June 13, 1997
Page 2

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.

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.

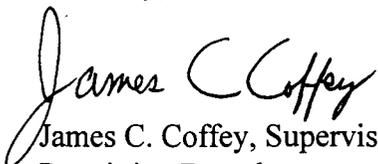
A closure plan including a final cap system.

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 regarding this letter, please call Susan Leistiko at (919) 733-0692 extension 262.

Sincerely,


James C. Coffey, Supervisor
Permitting Branch
Solid Waste Section

cc: Julian Foscue
Hugh Jernigan

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



February 26, 1997

Mr. Grayling Vandervelde
Duke Power
1339 Hagers Ferry Road
Huntersville, NC 28078

RE: Preliminary Evaluation, Duke Power Industrial Landfill, Stokes County, Permit Number 85-03

Dear Mr. Vandervelde:

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 coal ash monofill 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.

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Mr. Vandervelde
February 26, 1997
Page 2

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.

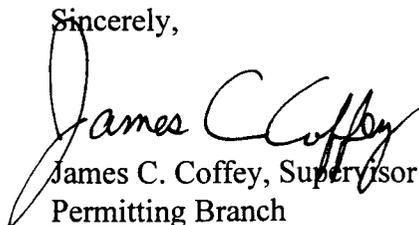
Since the referenced landfill has only received coal ash for disposal and current rules allow the utilization of coal ash for structural fill, site-specific modelling to demonstrate compliance with 2L will not be required. The Section is currently developing a modelling approach that will be used to evaluate all coal ash landfills. The model will be used to evaluate existing landfills for closure and to determine the required landfill design for future lateral expansions and new landfills.

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 regarding this letter, please call Susan Leistiko at (919) 733-0692 extension 262.

Sincerely,


James C. Coffey, Supervisor
Permitting Branch
Solid Waste Section

cc: Julian Foscue
Hugh Jernigan

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF WASTE MANAGEMENT

January 5, 1998

Mr. William Miller
Duke Power
13339 Hagers Ferry Road
Huntersville, NC 28078-7929

Re: Duke Power Industrial Landfill, Permit Number 85-03

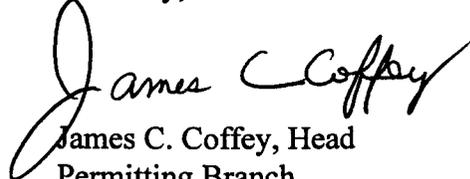
Dear Mr. Miller:

This letter serves as formal acknowledgement of receipt by the Division of Waste Management, Solid Waste Section, of information required by Rule .0503(2)(d)(ii) submitted on behalf of the owner and operator of the referenced industrial landfill. The rule requires that the owner and operator of an industrial landfill receiving waste on or after January 1, 1998, submit a demonstration that the landfill design ensures compliance with the ground water standards of 15A NCAC 2L. This acknowledgement is given without Section review and evaluation of the submittal and does **not** constitute final determination by the Section that the design ensures compliance with the ground water standards established under 15A NCAC 2L.

The Section will review and evaluate the information submitted and determine if the landfill design ensures compliance with the ground water standards. If the Section determines that the landfill design does not ensure compliance with 2L, closure of the landfill will be required. The Section may take into consideration the time required to properly close the landfill and the time necessary to prepare for alternative waste management when considering an order to close. If the Section determines that the landfill design ensures compliance with 2L, a five-year permit will be issued. Additional requirements such as an enhanced final cap system and specific operational requirements may be made conditions of the permit.

If there are any questions, please contact me @ (919) 733-0692, ext 255.

Sincerely,



James C. Coffey, Head
Permitting Branch
Solid Waste Section

cc: Hugh Jernigan

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**NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES**

DIVISION OF WASTE MANAGEMENT

December 23, 1999

Mr. Allen Stowe, Scientist
Environmental Protection
Duke Power
13339 Hagers Ferry Road
Huntersville, NC 28078-7929

Re: Transition Plan Approval for Duke Power Belews Creek Steam Station Fly
Ash Industrial Landfill, Permit Number 85-03, Stokes County

Dear Mr. Stowe:

The purpose of this letter is to inform the owner/operator that the Solid Waste Section(Section) has approved the Transition Plan for the referenced industrial waste landfill as proposed in your letter dated November 30, 1999.

Rule .0503(2)(d)(ii) of the solid waste management rules codified at 15A NCAC 13B required that operators of industrial waste landfills operating on or after January 1, 1998, submit to the Division 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.

As stated in the letter dated July 22, 1999, the Section has determined that the information submitted does not meet the requirements of this Rule. Specifically, the submitted ground water monitoring information does not demonstrate current compliance with the ground water standards in the upper most aquifer at the compliance boundary; the modeling information submitted does not provide adequate hydrogeologic characterization of the site to demonstrate future compliance with ground water standards in the upper most aquifer at the compliance boundary; and the information provided concerning previously disposed wastes does not provide accurate physical and chemical characteristics of the leachate.

It is important to note that this determination means only that the owner/operator has not demonstrated compliance with the industrial waste rule. No determination has been made regarding current compliance with the 2L regulations.



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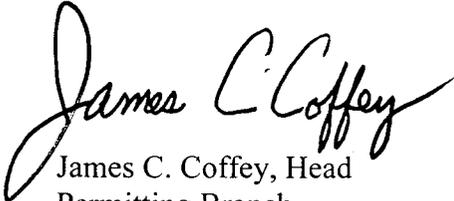
Mr. Stowe
December 23, 1999
Page 2

As proposed in the Transition Plan, the landfill shall stop receiving waste on or before January 1, 2003. As with all sanitary landfills, any necessary future detection and assessment ground water monitoring and possible corrective action will be based on ongoing water quality monitoring results. Based upon these results, the Section may require closure of the referenced landfill prior to January 1, 2003. A final closure plan should be submitted at least 180 days prior to commencement of closure activities for approval by the Section.

Upon submittal of a permit application for a lateral expansion of the ash monofill, the Section shall conduct the review in accordance with the permit requirements of Rules .0503, .0504, and .0505. Specifically, the approved landfill design must meet the design requirements of Rule .0503(2)(d)(ii). The Section, in cooperation with the regulated community, may develop by rule or policy, a categorical liner and leachate collection system for coal ash monofills.

If there are any questions concerning this letter, please contact me @ (919) 733-0692, extension 255.

Sincerely,



James C. Coffey, Head
Permitting Branch
Solid Waste Section

cc: Dexter Matthews
Phil Prete
Mark Poindexter
Ellen Lorscheider
Hugh Jernigan

Ral Central Files
#85-03

North Carolina
Department of Environment and Natural Resources



Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director
December 30, 2002

Allen Stowe
Duke Energy
PO Box 1006
Charlotte, NC 28201-1006

RE: Permit to Operate for Phase 1 of the Area 1 Expansion for an Industrial Landfill, Duke Energy Belews Creek Steam Station, Stokes County, NC. Permit No. 85-03

Dear Mr. Stowe;

Enclosed please find a solid waste **Permit to Operate** for the area identified as Phase 1 of the Area 1 Ash Landfill Expansion and the accompanying conditions for the subject facility, issued in accordance with N.C.G.S. 130A-294 and the NC Solid Waste Management Rules 15A NCAC 13B .0201(b). Please submit information required in the Permit to Construct condition numbers 13, 15, and 19(e) as well as closure cap information for the existing ash monofill to show that all pre-operative conditions have been met.

As stated in our earlier letter dated 18 December 2002, development of the remaining proposed Phases 2-4 of Area 1 cannot be approved without further hydrogeologic investigation to locate the source of ground water contamination. Re-evaluation of groundwater modeling and the composite liner system requirements specified in .0503(2)(d)(ii) and .0503(2)(d)(iii) may be necessary to develop these additional phases and future proposed expansion areas while maintaining ground water standards established under 15A NCAC 2L.

Please review the conditions of permit carefully. If you have any questions or comments about the enclosed permit, please feel free to contact me at (336) 771-4608 ext. 204 or the Waste Management Specialist for your area, Hugh Jernigan, at (336) 771-4608 ext. 206.

Sincerely,

Timothy A. Jewett

Western Area Engineer

cc: James C. Coffey, SW Section Chief
Ellen Lorscheider, SWS
Brent Rockett, SWS
Hugh Jernigan, SWS
Raleigh Central Files: Stokes County Permit No. 85-03

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Phone: 919-733-0692 \ FAX: 919-733-4810 \ Internet: www.enr.state.nc.us/

North Carolina
Department of Environment and Natural Resources

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director

*Area Central Files
#85-03*



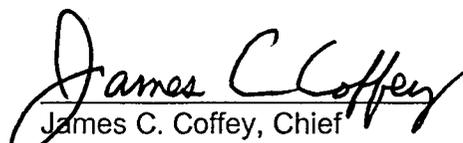
FACILITY PERMIT NO: 85-03
Phase 1 of Area 1 Expansion
Part 2-Permit to Operate
Date Issued: December 30, 2002
Page 1

INDUSTRIAL SOLID WASTE LANDFILL PERMIT

Duke Power/Belews Creeks Steam Station - A Duke Energy Company

is hereby issued a PERMIT to OPERATE Area 1, Phase 1 of an
INDUSTRIAL SOLID WASTE LANDFILL FACILITY

located off SR 1908 (Pine Hall Road), near Walnut Cove, Stokes 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.


James C. Coffey, Chief
Solid Waste Section

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-733-0692 \ FAX: 919-733-4810 \ Internet: www.enr.state.nc.us/

ATTACHMENT 3

PART I: INDUSTRIAL LANDFILL FACILITY
PART II: INDUSTRIAL LANDFILL UNIT

Approved Documents

1. *Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application - Siting Package, Volume 1, 15A NCAC 13B .0503(1) and .0504(1) Requirements and Responses, prepared by Duke Energy, submitted October 2, 2001.*
2. *Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application - Siting Package, Volume 2, Attachment .0504(1)(c) Geological and Hydrological Study for Proposed Landfill Site, prepared by Duke Energy, submitted October 2, 2001.*
3. *Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application .0503(2)(d)(ii)(A) Compliance Demonstration Report, prepared by Duke Energy, submitted January 18, 2002.*
4. *Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application .0503(2)(d)(ii)(A) Compliance Demonstration Report, Addendum 1, prepared by Duke Energy, submitted May 31, 2002.*
5. *Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application - Design Package, prepared by Keith Anthony, P.E. of Shield Engineering, Inc.; submitted October 10, 2002.*
6. *Duke Energy Corporation Belews Creek Steam Station, Stokes County, NC: Ash Landfill Expansion Ground Water Monitoring Program, Sampling and Analysis Plan Revision 1, prepared by William M. Miller, P.E. of Duke Energy Corporation, submitted December 26, 2002.*

ATTACHMENT 4

Conditions of Permit to Operate

PART I: INDUSTRIAL WASTE LANDFILL FACILITY GENERAL CONDITIONS

1. This permit shall be reviewed, pursuant to 15A NCAC 13B.0201(e), five (5) years from the issuance date of this permit to operate or the latest amendment.
2. In the event of conflicts between this Permit to Operate and previously issued conditions, the conditions of this Permit to Operate shall supersede previously issued conditions.
3. Additional conditions and revision of the approved documents or changes during the operation of the landfill require approval by the North Carolina Solid Waste Section.

PART II: INDUSTRIAL WASTE LANDFILL UNIT OPERATIONAL CONDITIONS

4. This permit approves the operation of Phase 1 of the Area 1 Expansion to the existing Ash Monofill as well as the on-site environmental management and protection facilities as described in the approved plans.
5. The solid waste management units within this facility shall conform to all operating requirements described in the approved plans, 15A NCAC 13B .0505, and the conditions specified herein:
 - a. Closure or partial closure of any MSWLF unit shall be in accordance with the Closure Plans described in the approved plans. Final Closure Plans shall be submitted to the Division at least 90 days prior to implementation. The Section may require a modification to the operations plan, the monitoring plan, and the closure cap design should contamination above the 2L standard be detected in the ground water or surface water monitoring system
6. Ground water quality at this facility is subject to the "Classifications and Water Quality Standards Applicable To The Groundwater of North Carolina", 15A NCAC 2L. This includes, but is not limited to provisions for detection monitoring, assessment, and corrective action. Compliance will be determined with ground water monitoring at the landfill.

MONITORING AND REPORTING

7. Ground water monitoring at this unit shall be as described in the approved monitoring plan.

8. A readily accessible unobstructed path shall be cleared and maintained so that four-wheel drive vehicles may access monitoring well locations at all times.
9. A field log book which details all development, sampling, repair, and all other pertinent activities associated with each monitoring well and all sampling activities associated with each surface water and leachate sampling location shall be kept as part of the permanent facility record.
10. Records of all ground water, surface water, and leachate analytical data shall be kept as part of the permanent facility record.
11. Ground water monitoring wells and surface water sampling locations must be sampled at least semi-annually according to the specifications outlined in the approved water quality monitoring plan and the current policies and guidelines of the Section in effect at the time of sampling.
12. Reports of the analytical data for each water quality sampling event shall be submitted to the Section within 60 days of the respective sampling event. Analytical data shall be submitted in a manner prescribed by the Section.
13. On or before August 1 of each year, the permittee shall report the amount of waste received (in tons) at this facility and disposed of in the landfill units to the Solid Waste Section, on forms prescribed by the Section. This report shall include the following information:
 - a. The reporting period shall be for the previous year, beginning July 1 and ending on June 30.
 - b. The amount of waste received and landfilled in tons, compiled on a monthly basis by county or transfer station of origin and by specific waste type if diverted to a specific unit within the permitted facility; and
 - c. The completed report shall be forwarded to the Regional Waste Management Specialist for the facility. A copy of the completed report shall be forwarded to the County Manager of each county from which waste was received.

North Carolina
Department of Environment and Natural
Resources



Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director

December 18, 2002

Allen Stowe
Duke Energy
PO Box 1006
Charlotte, NC 28201-1006

RE: Permit to Construct for Phase 1 of the Area 1 Expansion for an Industrial Landfill, Duke Energy Belews Creek Steam Station, Stokes County, NC. Permit No. 85-03

Dear Mr. Stowe;

The Solid Waste Section of the Division of Waste Management (Division), has completed its review of the Area 1 Ash Landfill Expansion application and facility plan for the proposed Belews Creek Steam Station, Industrial Landfill. The proposed site is located on NC SR 1908 in Stokes County, near Walnut Cove, North Carolina.

Enclosed please find a solid waste Permit to Construct for the area identified as Phase 1 of the Area 1 Ash Landfill Expansion and the accompanying conditions for the subject facility, issued in accordance with N.C.G.S. 130A-294 and the NC Solid Waste Management Rules 15A NCAC 13B .0201(b). The Division may only issue a Permit to Operate after it determines that the facility has been constructed in accordance with the construction permit and that all pre-operative conditions have been met.

Sampling results from monitoring well MW 2-4 located near the existing sediment basin northeast of the landfill indicate that the site may not be in compliance with ground water standards established under 15A NCAC 2L. Therefore, development of the remaining proposed Phases 2-4 of Area 1 cannot be approved without further hydrogeologic investigation to locate the source of contamination. Re-evaluation of groundwater modeling and the composite liner system requirements specified in .0503(2)(d)(ii) and .0503(2)(d)(iii) may also be necessary to develop these additional phases and future proposed expansion areas. The additional hydrogeological work is also needed to more accurately establish the potentiometric surface at the site for achieving a 4 foot vertical separation and to further evaluate the influence of springs to the east of the landfill for proper water quality monitoring.

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-733-4996 \ FAX: 919-715-3605 \ Internet: www.enr.state.nc.us

North Carolina
Department of Environment and Natural Resources



Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director

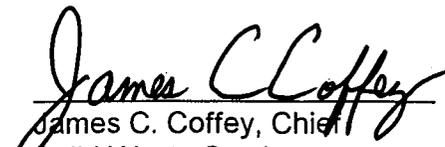
FACILITY PERMIT NO: 85-03
Phase 1 of Area 1 Expansion
Part 1-Permit to Construct
Date Issued: DECEMBER 18, 2002
Page 1

INDUSTRIAL SOLID WASTE LANDFILL PERMIT

Duke Power/Belews Creeks Steam Station - A Duke Energy Company

is hereby issued a PERMIT to CONSTRUCT Area 1, Phase 1 of an
INDUSTRIAL SOLID WASTE LANDFILL FACILITY

located off SR 1908 (Pine Hall Road), near Walnut Cove, Stokes 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.


James C. Coffey, Chief
Solid Waste Section

1646 Mail Service Center, Raleigh, North Carolina 27699-1646
Phone: 919-733-0692 \ FAX: 919-733-4810 \ Internet: www.enr.state.nc.us/

ATTACHMENT 1

Approved Documents

Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application .0503(2)(d)(ii)(A) Compliance Demonstration Report, prepared by Duke Energy, submitted January 18, 2002.

Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application .0503(2)(d)(ii)(A) Compliance Demonstration Report, Addendum 1, prepared by Duke Energy, submitted May 31, 2002.

Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application - Siting Package, Volume 1, 15A NCAC 13B .0503(1) and .0504(1) Requirements and Responses, prepared by Duke Energy, submitted October 2, 2002.

Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application - Siting Package, Volume 2, Attachment .0504(1)(c) Geological and Hydrological Study for Proposed Landfill Site, prepared by Duke Energy, submitted October 2, 2002.

Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application - Design Package, prepared by Keith Anthony, P.E. of Shield Engineering, Inc.; submitted October 10, 2002.

Duke Energy Corporation Belews Creek Steam Station, Stokes County, NC: Ash Landfill Expansion Ground Water Monitoring Program, Sampling and Analysis Plan, prepared by William M. Miller, P.E. of Duke Energy Corporation, submitted December 11, 2002.

ATTACHMENT 2

Conditions of Permit to Construct

PART I: INDUSTRIAL WASTE LANDFILL FACILITY

GENERAL CONDITIONS

1. This permit shall be effective upon compliance with 15A NCAC 13B .0204 and when the certified copy with the page, book number, date of recordation, and Register's seal is returned to the Solid Waste Section (Section).
2. This permit is subject to review every five years as per 15A NCAC 13B .0201(e), according to the issuance date of the Permit to Operate. Modifications to the facility may be required in accordance with rules in effect at the time of review.
3. The approved plans are described in Attachment 1, "Approved Documents". Where discrepancies may exist, the most recent approved submittal and Conditions of Permit shall govern.
4. The landfill is permitted to receive solid waste generated solely by Duke Power/Belews Creek Steam Station as described in the approved plan and as defined in 15A NCAC 13B .0101(36), except where prohibited by North Carolina General Statutes Article 9 of Chapter 130A, and rules adopted by the Commission for Health Services.
5. This facility is subject to the requirements of all applicable sections of the most recent version of the North Carolina Solid Waste Management Rules, 15A NCAC 13B and the specific conditions contained herein.
6. This permit is not transferable.

PART II: INDUSTRIAL WASTE LANDFILL UNIT

CONSTRUCTION CONDITIONS

7. The permittee shall conduct an on-site pre-construction meeting prior to initiating construction and shall notify the Solid Waste Section of said meeting. If construction does not begin within 18 months from the issuance date of this permit, then the permittee must obtain written approval from the Section prior to construction and comply with any conditions of said approval.
8. This permit approves the construction of Phase 1 of the Area 1 Expansion to the existing Ash Monofill. Construction shall be in accordance with the approved plans and only Phase 1 is approved for development as described in Attachment 1, "Approved Documents".
9. Duke Energy shall submit an application for amendment to this permit for subsequent phases and areas of development.

10. Additional conditions and revisions of the approved documents or changes during construction require approval by the North Carolina Solid Waste Section.
11. Any modifications in sedimentation and erosion control activities require approval by the Land Quality Section. The Section shall be notified of any sedimentation and erosion control modifications.
12. Abandonment of observation wells shall be in accordance with 15A NCAC 2C. Well abandonment records shall be submitted to the Section Hydrogeologist for review and approval prior to beginning landfill construction.
13. The owner's geologist shall examine the cell excavation and note any pertinent geologic features exposed during the construction process and shall notify the Solid Waste Section Hydrogeologist, by letter, of these findings prior to requesting a permit to operate.
14. The owner's geologist shall be in the field to supervise all well installations. Any modifications to the approved water quality monitoring plan require approval by the Section Hydrogeologist. Documentation of all changes to the approved plan shall be submitted with the well construction records.
15. For each monitoring well constructed, a well construction record, well schematic, boring log and a description of well development activities shall be submitted to the Section within 30 days upon well completion.
16. At a minimum, the ground water monitoring plan shall consist of MW 2-1, 2-2, 2-5 (in accordance with approved monitoring plan referenced in Attachment 1) and an additional monitoring well to be located approximately 125 feet north, northeast of the edge of Phase 1. Exact locations shall be coordinated with the Section Hydrogeologist. Additional monitoring wells may be needed prior to issuance of the permit to operate based on sampling results.
17. Surface and ground water sampling shall be done semi-annually and shall include analytes, constituents, and sample parameters listed in the approved plan referenced in Attachment 1.

PRE-OPERATIVE CONDITIONS

18. Prior to receiving waste, a Permit to Operate must be obtained from the Solid Waste Section in accordance with 15A NCAC 13B .0201(b).
19. The following requirements shall be met prior to obtaining a Permit to Operate:
 - a. Site preparation shall be in accordance with the approved plans, and the conditions specified herein.
 - b. Site inspection shall be made by a representative of the Solid Waste Section.
 - c. A pre-operative meeting shall be held on-site with key landfill personnel and representatives of the Solid Waste Section.
 - d. Ground water monitoring wells and surface water sampling locations shall be installed and sampled.
 - e. CQA documentation as well as a certification by the project engineer that the landfill was built in accordance with approved plans shall be submitted to the Section.

North Carolina
Department of Environment and Natural
Resources



Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director

January 30, 2003

Allen Stowe
Duke Energy
PO Box 1006
Charlotte, NC 28201-1006

RE: Permit to Operate for Phase 2 of the Area 1 Expansion for an Industrial Landfill, Duke Energy Belews Creek Steam Station, Stokes County, NC. Permit No. 85-03

Dear Mr. Stowe;

Enclosed please find a solid waste **Permit to Operate** for the area identified as Phase 2 of the Area 1 Ash Landfill Expansion and the accompanying conditions for the subject facility, issued in accordance with N.C.G.S. 130A-294 and the NC Solid Waste Management Rules 15A NCAC 13B .0201(b). Phase 2 is in addition to the previously approved Phase 1 of Area 1 Expansion. Please submit information required in the Permit to Construct condition numbers 13, 15, and 19(e) as well as closure cap information for the existing ash monofill to show that all pre-operative conditions have been met.

As stated in our earlier letter dated 30 December 2002, development of the remaining proposed Phases 3&4 of Area 1 cannot be approved without further hydrogeologic investigation to locate the source of ground water contamination. Re-evaluation of groundwater modeling and the composite liner system requirements specified in .0503(2)(d)(ii) and .0503(2)(d)(iii) may be necessary to develop these additional phases and future proposed expansion areas while maintaining ground water standards established under 15A NCAC 2L.

Please review the conditions of permit carefully. If you have any questions or comments about the enclosed permit, please feel free to contact me at (336) 771-4608 ext. 204 or the Waste Management Specialist for your area, Hugh Jernigan, at (336) 771-4608 ext. 206.

Sincerely,

Timothy A. Jewett

Western Area Engineer

cc: James C. Coffey, SW Section Chief

Ellen Lorscheider, SWS Brent Rockett, SWS

Hugh Jernigan, SWS

Raleigh Central Files: Stokes County Permit No. 85-03

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North Carolina
Department of Environment and Natural
Resources



Michael F. Easley, Governor
William G. Ross Jr., Secretary
Dexter R. Matthews, Director

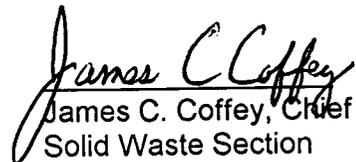
FACILITY PERMIT NO: 85-03
Phase 1 of Area 1 Expansion
Part 2-Permit to Operate
Date Issued: December 30, 2002
Date Modified(Phase 2 of Area 1 added): January 29, 2003
Page 1

INDUSTRIAL SOLID WASTE LANDFILL PERMIT

Duke Power/Belews Creeks Steam Station - A Duke Energy Company

is hereby issued a PERMIT to OPERATE Area 1, Phase 1 & 2 of an
INDUSTRIAL SOLID WASTE LANDFILL FACILITY

located off SR 1908 (Pine Hall Road), near Walnut Cove, Stokes 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.


James C. Coffey, Chief
Solid Waste Section

ATTACHMENT 3

PART I: INDUSTRIAL LANDFILL FACILITY
PART II: INDUSTRIAL LANDFILL UNIT

Approved Documents

1. *Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application - Siting Package, Volume 1, 15A NCAC 13B .0503(1) and .0504(1) Requirements and Responses, prepared by Duke Energy, submitted October 2, 2001.*
2. *Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application - Siting Package, Volume 2, Attachment .0504(1)(c) Geological and Hydrological Study for Proposed Landfill Site, prepared by Duke Energy, submitted October 2, 2001.*
3. *Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application .0503(2)(d)(ii)(A) Compliance Demonstration Report, prepared by Duke Energy, submitted January 18, 2002.*
4. *Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application .0503(2)(d)(ii)(A) Compliance Demonstration Report, Addendum 1, prepared by Duke Energy, submitted May 31, 2002.*
5. *Duke Energy Belews Creek Steam Station, Stokes County, NC: Landfill Permit Application - Design Package, prepared by Keith Anthony, P.E. of Shield Engineering, Inc.; submitted October 10, 2002.*
6. *Duke Energy Corporation Belews Creek Steam Station, Stokes County, NC: Ash Landfill Expansion Ground Water Monitoring Program, Sampling and Analysis Plan Revision 1, prepared by William M. Miller, P.E. of Duke Energy Corporation, submitted December 26, 2002.*

ATTACHMENT 4

Conditions of Permit to Operate

PART I: INDUSTRIAL WASTE LANDFILL FACILITY GENERAL CONDITIONS

1. This permit shall be reviewed, pursuant to 15A NCAC 13B.0201(e), five (5) years from the issuance date of this permit to operate or the latest amendment.
2. In the event of conflicts between this Permit to Operate and previously issued conditions, the conditions of this Permit to Operate shall supersede previously issued conditions.
3. Additional conditions and revision of the approved documents or changes during the operation of the landfill require approval by the North Carolina Solid Waste Section.
4. This permit is not transferable.

PART II: INDUSTRIAL WASTE LANDFILL UNIT OPERATIONAL CONDITIONS

5. This permit approves the operation of Phase 1 & 2 of the Area 1 Expansion to the existing Ash Monofill as well as the on-site environmental management and protection facilities as described in the approved plans.
6. The solid waste management units within this facility shall conform to all operating requirements described in the approved plans, 15A NCAC 13B .0505, and the conditions specified herein:
 - a. Closure or partial closure of any MSWLF unit shall be in accordance with the Closure Plans described in the approved plans. Final Closure Plans shall be submitted to the Division at least 90 days prior to implementation. The Section may require a modification to the operations plan, the monitoring plan, and the closure cap design should contamination above the 2L standard be detected in the ground water or surface water monitoring system
7. Ground water quality at this facility is subject to the "Classifications and Water Quality Standards Applicable To The Groundwater of North Carolina", 15A NCAC 2L. This includes, but is not limited to provisions for detection monitoring, assessment, and corrective action. Compliance will be determined with ground water monitoring at the landfill.

MONITORING AND REPORTING

8. Ground water monitoring at this unit shall be as described in the approved monitoring plan.
9. A readily accessible unobstructed path shall be cleared and maintained so that four-wheel drive vehicles may access monitoring well locations at all times.
10. A field log book which details all development, sampling, repair, and all other pertinent activities associated with each monitoring well and all sampling activities associated with each surface water and leachate sampling location shall be kept as part of the permanent facility record.
11. Records of all ground water, surface water, and leachate analytical data shall be kept as part of the permanent facility record.
12. Ground water monitoring wells and surface water sampling locations must be sampled at least semi-annually according to the specifications outlined in the approved water quality monitoring plan and the current policies and guidelines of the Section in effect at the time of sampling.
13. Reports of the analytical data for each water quality sampling event shall be submitted to the Section within 60 days of the respective sampling event. Analytical data shall be submitted in a manner prescribed by the Section.
14. On or before August 1 of each year, the permittee shall report the amount of waste received (in tons) at this facility and disposed of in the landfill units to the Solid Waste Section, on forms prescribed by the Section. This report shall include the following information:
 - a. The reporting period shall be for the previous year, beginning July 1 and ending on June 30.
 - b. The amount of waste received and landfilled in tons, compiled on a monthly basis by county or transfer station of origin and by specific waste type if diverted to a specific unit within the permitted facility; and
 - c. The completed report shall be forwarded to the Regional Waste Management Specialist for the facility. A copy of the completed report shall be forwarded to the County Manager of each county from which waste was received.



North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary

July 13, 2004

Allen Stowe
Duke Energy
PO Box 1006
Charlotte, NC 28201-1006

RE: Monitoring of Coal Ash Landfill Phase 1 and 2
Belews Creek Steam Station, Stokes County, NC

Dear Mr. Stowe;

A meeting was held at the site of the proposed Belews Creek Industrial Landfill on May 28, 2004. The purpose of the meeting was to discuss the monitoring of the groundwater and surface water around Phases 1 and 2 of this landfill.

In past monitoring reports there have been detection and exceedances of the NCAC 2L standard of groundwater at several of the wells. In order to assess these monitoring reports the following information will be needed:

- Aerial photo of landfill and vicinity
- Map, to scale, with following shown: property boundary, compliance boundary, waste limits, well locations, potentiometric map.
- Boring logs to existing wells
- Updated cross sections with new borings shown.

Much of the aforementioned information has already been included in past applications, etc. The information should be sent, at this time, to Larry Rose, who works in the Compliance Branch of the Solid Waste Section. He will determine what future actions need to be taken to assess whether exceedances occurred at or outside the compliance boundary of this landfill and whether to update the monitoring plans to include more/different wells, etc.

Mr. Allen Stowe

July 14, 2004

If you have any questions, or would like to schedule a meeting to discuss this letter, please contact me at (919) 733-0692 extension 345 or Larry Rose at extension 257.

Sincerely,

A handwritten signature in cursive script that reads "Ellen Lorscheider".

Ellen Lorscheider
Permitting Hydrogeologist

cc: Jim Barber, SWS
Tim Jewett, SWS
Geof Little, SWS
Larry Rose, SWS
Hugh Jernigan, SWS



North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary

May 17, 2004

Mr. Rich Lyman
National Gypsum Company
2001 Rexford Road
Charlotte, NC 28211

Re: National Gypsum Company
Proposed Wallboard Manufacturing Plant
Qualification for Special Tax Certification
for Resource Recovery and Recycling Facilities and Equipment

Dear Mr. Lyman:

Staff from the Division of Waste Management recently toured National Gypsum Company's Apollo Beach, Florida, facility. The purpose of the visit was to determine whether a similar facility proposed for North Carolina would be eligible for special tax benefits provided to facilities and equipment that are exclusively used for solid waste recycling or for recovering resources from solid waste. The Division of Waste Management has the responsibility to certify eligibility for those tax benefits under Solid Waste Management Rules Section .1500 "Standards for Special Tax Treatment of Recycling and Resource Recovery Equipment and Facilities".

It is our understanding that the proposed wallboard manufacturing facility would exclusively use synthetic gypsum recovered from Duke Energy's flue gas desulphurization scrubbers to produce wallboard. As residue or sludge from an air pollution control facility, this synthetic gypsum would be considered a solid waste when generated at Duke Energy. Based on observations of the Apollo Beach facility, a preliminary analysis indicates that facilities and equipment exclusively used to recycle the synthetic gypsum scrubber waste into wallboard would meet the requirements of 15A N.C. Administrative Code 13B, Section .1500, and qualify for tax certification as solid waste recycling facilities and equipment. There are no permitting requirements within the Solid Waste Management Rules directly associated with the tax certification process.

National Gypsum Company indicated that initially it would need to store an amount of the recovered material prior to the beginning of the operation of the facility. As long as the recovered material meets the conditions under North Carolina General Statutes Chapter 130A-309.05 "Regulated wastes: certain exclusions" (c)(1), (2) and (3), then the recovered material is not subject to regulation as solid waste under this Article. Please note that sub-section (c)(2) would require enclosed storage of the recovered synthetic gypsum.

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Phone 919-733-4996 \ FAX 919-715-3605 \ Internet <http://wastenotnc.org>

For purposes of this letter, the Division has made two assumptions about matters on which it has no information at this time: (1) that the flue gas desulphurization process to be used by Duke Energy will generate wallboard quality gypsum; and (2) that the synthetic gypsum will not exhibit any characteristic of hazardous waste. The Division again emphasizes that this is a preliminary analysis based on the observation of a similar facility and the information provided. The Division reserves the right to modify this analysis based upon application documents and an inspection of the actual facility.

The Division wishes the project every success, and looks forward to working with you. Please feel free to call our office at any time.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Poindexter", with a stylized flourish at the end.

Mark Poindexter
Field Operations Branch
Solid Waste Section

cc: Dexter Matthews
James Coffey
Central file