



Permit
60-04
Mecklenburg

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

William L. Meyer
Director

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

July 31, 1991

Mr. Tim Huffman
Design Engineering Department
Duke Power Company
P. O. Box 33189
Charlotte, North Carolina 28242

Carmen Johnson
Fac/Perm/Co ID: 60-04
4/17/12
Doc ID#

RE: Amendment to Permit No. 60-04
Duke Power - McGuire Landfill Lined Expansion
Mecklenburg County

Dear Mr. Huffman:

Enclosed is an Amended Solid Waste Permit (Part 1: Permit to Construct) and Conditions of Permit for the referenced lined expansion. The pre-operative requirements of Construction Condition No. 3 must be met in order to obtain a Permit to Operate.

Please note Operation Condition No. 1 which covers various aspects of waste acceptance. Specifically, this condition requires that only waste generated by Duke Power's McGuire Nuclear Station be disposed at the McGuire Landfill. Waste from Duke Power's South Carolina facilities will be considered on a case-by-case basis and only when the requirements of 15A NCAC 13B Section .0108 have been met. Also, this condition requires an annual update of the "Procedures and Criteria for Waste Determination" form for both waste sludge and oil contaminated material described in the approved plan.

Asbestos acceptance is addressed in Operation Condition No. 1, as well. Due to recent changes in both Federal and State regulations regarding asbestos management, the Solid Waste Section recommends that you contact the Asbestos Hazard Management Branch at (919) 733-0820, and the local program administered by the Mecklenburg County Department of Environmental Protection at (704) 336-5500 for further information.

Also, please note Monitoring and Reporting Requirements Numbers 6 and 7. These are fairly new requirements mandated by Senate Bill 111 and recently clarified in House Bill 1109. All solid waste received at the facility must be weighed, and records

ons of Permit

The CQA report will include a summary of the methodology, modifications, and construction quality control measures necessary to construct the landfill in accordance with the approved plans and as specified herein; and

all sedimentation/erosion control activities will be conducted in accordance with the Sedimentation Control Act codified at 15 NCAC 4.

The following pre-operative requirements shall be met to obtain permit to operate this facility:

- a. Site preparation shall be in accordance with the construction plan, and the conditions specified herein.
- b. Site inspection shall be made by a representative of the Division of Solid Waste Management (DSWM).
- c. The permit number and the words "NO HAZARDOUS, OR LIQUID WASTE ACCEPTED" shall be posted on an entrance sign.
- d. Upon completion of construction, the permittee will submit the CQA report and document drawings to the DSWM; within 30 days upon receipt, the agency will review the submittal and issue its concurrence that the facility was constructed as specified herein.
- e. All necessary Local, State, and Federal permits or approvals to manage leachate must be obtained.
- f. Groundwater monitoring wells (see Monitoring and Reporting Requirements) shall be installed and a baseline sampling performed.

ATION:

This solid waste disposal facility is permitted to receive solid waste generated solely by Duke Power Company's McGuire Nuclear Station as described in the approved plan, and as defined in 15A NCAC 13B, .0101(36), except that hazardous waste and liquid waste are prohibited from disposal at this site.

- a. Acceptance of solid wastes in addition to those described in the approved plan shall be in accordance with Section .0103(d) of 15A NCAC 13B.
- b. Testing of sludges and routine petroleum contaminated materials shall be conducted at least annually. Testing shall be in accordance with Section .0103(d) of 15A NCAC 13B. Results shall be submitted to DSWM in a timely manner.

PERMIT APPLICATION

REPORT FOR

MCGUIRE LANDFILL

DUKE POWER COMPANY
MCGUIRE NUCLEAR STATION
HIGHWAY 73
HUNTERVILLE, N.C.

DESIGN ENGINEERING DEPARTMENT
MCGUIRE ENGINEERING DIVISION
CHARLOTTE, N.C.

August 31, 1990

Introduction

This report addresses for the McGuire Landfill each of the permit application requirements detailed in Section .0500 of the North Carolina Administrative Code, Subchapter 10G - Solid Waste Management.

SECTION .0503

Siting and Design Requirements for Disposal Sites

(1) A site shall meet the following siting requirements:

- (a) A site located in a floodplain shall not restrict the flow of the 100 year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources;

Response: The McGuire Landfill is not located in a floodplain.

(b) A site shall be located in consideration of the following:

- (i) A site shall not cause or contribute to the taking of any endangered or threatened species of plants; fish or wildlife;
- (ii) A site shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species as identified in 50CFR, Part 17;

Response: The McGuire Landfill meets these requirements. Reference letter from Charles Roe, Head of N.C. Natural Heritage Program, dated 6-15-90. (See Attachment 1.)

- (iii) A site shall not damage or destroy an archaeological or historical site;

Response: The McGuire Landfill meets this requirement. Reference letter from David Brook, Deputy State Historic Preservation Officer, dated 6-25-90. (See Attachment 2.)

- (iv) A site shall not cause an adverse impact on a state park, recreation or scenic area, or any other lands included in the state nature and historic preserve:

Response: The McGuire Landfill meets this requirement. Reference letter from Charles Roe, Head of N.C. Natural Heritage Program, dated 6-15-90. (See Attachment 1.)

- (c) A new site disposing of putrescible wastes shall not be located within 10,000 ft. of an airport runway used by turbojet aircraft or within 5,000 ft. of an airport runway used by piston-type aircraft;

Response: The closest airport to the landfill site is located 8 miles north of McGuire Nuclear Station. The airport is a private 1600' grass runway used by piston-type aircraft.

- (d) A site shall have available adequate suitable soils for cover either on-site or from off-site.

Response: There is adequate on-site soil available based on calculations and soil borings. (See Appendix D of Project Manual for Soil Borings.)

(2) A site shall meet the following design requirements:

(a) The concentration of explosive gases generated by the site shall not exceed:

(i) twenty-five percent of the limit for the gases in site structures (excluding gas control or recovery system components);

(ii) the lower explosive limit for the gases at the property boundary;

Response: Based on the type of waste disposed of in the landfill and previous experience at current landfill, gas production/migration is considered negligible.

(b) A site shall not allow uncontrolled public access so as to expose the public to potential health and safety hazards at the disposal site;

Response: The site is surrounded by 6' fence.

(c) A site shall meet the following surface water requirements:

(i) A site shall not cause a discharge of pollutants into waters of the state that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES), under Section 402 of the Clean Water Act, as amended;

(ii) A site shall not cause a discharge of dredged material or fill material into waters of the state that is in violation of the requirements under Section 404 of the Clean Water Act, as amended; and

(iii) A site shall not cause non-point source pollution of waters of the state that violates assigned water quality standards;

Response: The McGuire Landfill has a leachate collection system that collects the leachate and pumps it to an existing treatment facility. The only water discharged from the site without treatment is the stormwater collected in the inactive areas.

(d) A site shall meet the following groundwater requirements:

(i) A site shall not contravene groundwater standards as established under 15 NCAC 2L. 15 NCAC 2L is adopted by reference in accordance with Subsection "c" of N.C.G.S. 150B-14. Copies of 15 NCAC 2L may be obtained from and inspected at the Solid Waste Branch, Division of Health Services, P.O. Box 2091, Raleigh, N.C. 27602.

- (ii) A site shall be designed so that the bottom elevation of solid waste will be a minimum of four feet above the seasonal high water table;

Response: The McGuire Landfill is a containment landfill with a synthetic liner. The minimum distance between groundwater and waste is met. (See Drawing CFD-MG-6433C-C-0030).

- (e) A site shall not engage in open burning of solid waste;

Response: McGuire Landfill will not burn solid waste.

- (f) A site shall meet the following buffer requirements (except demolition landfills):

- (i) A 50-foot minimum buffer will be required between all property lines and disposal areas;
- (ii) A 500-foot minimum buffer will be required between private dwellings and wells and disposal areas; and
- (iii) A 50-foot minimum buffer will be required between streams and rivers and disposal areas;

Response: The McGuire Landfill has met all buffer requirements. (See Drawing CFD-MG-6433C-C-0020)

- (g) Requirements of the Sedimentation Pollution Control Law (15 NCAC 4) shall be met.

Response: See Erosion and Sediment Control Plan in Appendix B of Project Manual.

SECTION .0504

Application Requirements for Sanitary Landfills

- (1) The following information is required for reviewing a site plan application for a proposed sanitary landfill:
- (a) An aerial photograph (scale 1' 400 ft. or larger) and a blueprint of the photograph accurately showing the area within one-fourth mile of the proposed site's boundaries with the following specifically identified:
 - (i) Entire property owned or leased by the person proposing the disposal site;
 - (ii) Land use and zoning;
 - (iii) Location of all homes, industrial buildings, public or private utilities, and roads;
 - (iv) Location of wells, watercourses, dry runs, and other applicable details regarding the general topography; and
 - (v) Flood plains.

Response: See Attachment 4 of this report. Note: original aerial photo enclosed as separate item.

- (b) A map (scale 1' 1000 ft. or larger) showing the area within two miles of the proposed site's boundaries with the following specifically identified:
 - (i) Significant groundwater users;
 - (ii) Potential or existing sources of groundwater and surface water pollution;
 - (iii) Water intakes;
 - (iv) Airport and runways; and
 - (v) Subdivisions.

Response: See Attachment 5 of this report.

- (c) A geological and hydrological study of the site which provides:
 - (i) Soil borings whose numbers and depths have been confirmed by the division and lab testing of selected soil samples that provide:
 - (A) standard penetration - resistance;

- (B) particle size analysis;
- (C) soil classification - USCS;
- (D) geologic considerations (slopes, solution features, etc.);
- (E) undisturbed representative geologic sample(s) of the unconfined and/or confined or semi-confined hydrological unit(s) within a depth of 50' that provide the following information for each major lithologic unit(s):
 - (I) saturated hydraulic conductivity (or by in-situ);
 - (II) volume percent water; and
 - (III) porosity;
- (F) remolded sample of cover soils that provide:
 - (I) saturated hydraulic conductivity,
 - (II) total porosity,
 - (III) atterberg limits;
- (G) stratigraphic cross-sections identifying hydrogeological units including lithology;
- (H) tabulation of water table elevations at time of boring, 24 hours, and seven days (The number of cased borings to provide this information shall be confirmed by the division.); and
 - (I) boring logs;
- (ii) A boundary plat location soil borings with accurate horizontal and vertical control which are tied to a permanent onsite bench mark;
- (iii) A potentiometer map of the surgical aquifer based on stabilized water table elevations; and
- (iv) A report summarizing the geological and hydrological evaluation.

Response: See Appendix D of Project Manual

- (d) A conceptual design plan presenting special engineering features or considerations which must be included or maintained in site construction, operation, maintenance and closure.

Response: See Drawing #CFD-MG-6433C-C-0060

(e) Local government approvals:

- (i) If the site is located within an incorporated city or town, or within the extra-territorial jurisdiction of an incorporated city or town, the approval of the governing board of the city or town shall be required. Otherwise, the approval of the Board of Commissioners of the county in which the site is located shall be required. Approval may be in the form of either a resolution or a vote on a motion. A copy of the resolution, or the minutes of the meeting where the vote was taken, shall be forwarded to the Division of Health Services.
- (ii) A letter from the unit of government having zoning jurisdiction over the site which states that the proposal meets all of the requirements of the local zoning ordinance.

Response: See Attachment 6 & 7 of this report.

(f) A discussion of compliance with siting standards in Rule .0503(I) of this Subchapter.

Response: The McGuire Landfill is in compliance with siting standards in Rule .0503(1). (See page 2).

(g) A report indicating the following:

- (i) population and area to be served;
- (ii) type, quantity and source of waste;
- (iii) the equipment that will be used for operating this site:

Response: Landfill will receive Duke Power generated waste from North and South Carolina.

The type of waste is as follows:

- (1) Oil contaminated material (oil dry, pads, absorbent, rags, etc.) generated as a result of non-routine events such as an oil spill: 300 yd³/yr.
- (2) conventional waste water sludge: 250yd³/yr
- (3) asbestos, empty barrels, empty cans, construction debris normal trash, (office trash, cafeteria trash, fluorescent lights, alkaline batteries, non-accumulated day to day routine oil contaminated materials including oil dry, absorbent, rags, filters, etc.): 7500 yd³/yr

The type of equipment used is as follows:

- (1) dozier - Caterpillar D6
- (2) front end load - Caterpillar 955

- (iv) a proposed groundwater monitoring plan including well location and schematics showing proposed screened interval, depth and construction; and

Response: See Appendix C of Project Manual

- (v) a more detailed geologic report may be required depending on specifics of the site. This report may be based on physical evidence, initially, or due to information obtained from the site plan application.

Response: Not required.

- (h) Any other information pertinent to the suitability of the proposed site.

Response: Not required

- (2) The following information is required for reviewing a construction plan application for a proposed sanitary landfill:

- (a) A map showing existing features to include:

- (i) existing topography of the site (scale not less than 200 feet per inch with 5-foot contours);
- (ii) bench marks;
- (iii) springs;
- (iv) streams;
- (v) potential groundwater monitoring sites;
- (vi) pertinent geological features; and
- (vii) soil boring locations.

- (b) A grading plan that provides:

- (i) proposed excavated contours;
- (ii) soil boring locations;
- (iii) locations and elevations of dikes and/or trenches;
- (iv) designated buffer zones;
- (v) diversion and controlled removal of surface water from the work areas; and
- (vi) proposed utilities and structures.

- (c) A construction plan that provides:
 - (i) proposed final contours showing removal of surface water runoff; and
 - (ii) locations of slope drains or other drop structures.
- (d) An erosion control plan that identifies the following:
 - (i) locations of temporary erosion control measures (sediment basins, stone filters, terraces, silt fences, etc.);
 - (ii) locations of permanent erosion control measures (rip-rap, energy dissipators, ditch stabilization, pipe drain, etc.); and
 - (iii) seeding specifications and schedules.
- (e) Detailed diagrams showing typical sections of:
 - (i) dikes,
 - (ii) trenches,
 - (iii) diversions,
 - (iv) sediment basins, and
 - (v) other pertinent details.
- (f) Cross sections (minimum of two per operational area) showing:
 - (i) original elevations,
 - (ii) proposed excavated depths,
 - (iii) proposed final evaluations,
 - (iv) groundwater elevation, and
 - (v) soil borings.
- (g) Site development showing phases or progression of operation.

Response: See contract drawings:

- CFD-MG-6433C-C-0010 - Landfill Access Road Layout**
- 0020 - Landfill Earthwork Excavation Plans**
- 0030 - Landfill Sections and Details**
- 0040 - Landfill Sections and Details**
- 0050 - Landfill Fabrication Details**
- 0060 - Landfill Operations**
- 0070 - Landfill Erosion Control Plan**

(h) A written report that contains the following:

- (i) A copy of the deed or other legal description of the landfill site that would be sufficient as a description in an instrument of conveyance and property owner's name;

Response: See Attachment 8.

- (ii) Name of individual responsible for operation and maintenance of the site;

Response: Eddie Faulkner

- (iii) Projected use of land after completion of the sanitary landfill;

Response: Land will be left vacant until a use can be identified that will benefit Duke Power Company.

- (iv) Anticipated lifetime of the project;

Response: Lifetime is predicted to be between 25 to 30 years.

- (v) Description of systematic usage of area, operation, orderly development and completion of the sanitary landfill;

Response: See Drawing CFD-MG-6433C-C-0060.

- (vi) Earthwork calculations;

Response: See Attachment 9.

- (vii) Seeding specifications and schedules;

- (viii) Calculations for temporary and permanent erosion control measures;

- (ix) Any narrative necessary to describe compliance with the Sedimentation Pollution Control Act of 1973 (15 NCAC 4);

Response: See Appendix B of Project Manual.

- (x) A discussion of compliance with design requirements in Rule .0503(2) of this Subchapter; and

Response: The McGuire Landfill is in compliance with Design Requirements in Rule .0503(2) (See p. 3 & 4)

- (xi) Any other information pertinent to the proposed construction plan.

Response: Not Required

ATTACHMENT 1

McGuire Nuclear Station
Landfill Permit Application 60-04
Lined Expansion
15A NCAC 13B Section .0504(g)(i) and (ii)
Revision #2
June 20, 1991

WASTE
TYPES
ACCEPTED
PER
PERMIT

(g) A report indicating the following:

- (i) population and area to be served;
- (ii) type, quantity, and source of waste;
- (iii) the equipment that will be used for operating this site:

Response: The Landfill will receive Duke Power generated waste from North and South Carolina.

The type of waste is as follows:

- (1) Oil contaminated material (oil dry, pads, absorbent, rags, etc.) generated as a result of non-routine events such as an oil spill at the McGuire Site: 250 yd³/yr

Oil contaminated material generated as a result of non-routine events such as an oil spill from other Duke Power facilities: 50 yd³/yr.

- (2) conventional waste water sludge: 250 yd³/yr
- (3) asbestos, empty barrels, empty cans, construction debris, normal trash (office trash, cafeteria trash, fluorescent lights, alkaline batteries): 5500 yd³/yr

Note that the empty barrels and empty cans will be crushed prior to disposal in the landfill and will contain no free liquids. Any drums which contain a P listed waste will be triple rinsed prior to crushing. The fluorescent lights will be crushed and disposed of in a drum uncrushed in the landfill.

- (4) Non-accumulated day to day routine oil contaminated materials including oil dry, absorbent, rags, filters, etc: 2000 yd³/yr.

(TCLP Results attached)

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

PROCEDURE AND CRITERIA FOR WASTE DETERMINATION

This procedure will be used by the Solid Waste Management Division to determine whether a waste is (1) hazardous as defined by 10 NCAC 10F, and (2) suitable for disposal at a solid waste management facility. The types of wastes that will be evaluated by this procedure are primarily, but not exclusively, industrial and commercial wastes and sludges, and Publicly Owned Treatment Works Sludges.

The Solid Waste Management Division reserves the right to request additional information or waive some of the requirements based on the type of waste if it deems necessary. The Division may also require some wastes to be treated or altered to render the wastes environmentally immobile prior to disposal at a sanitary landfill. Wastes disposed at sanitary landfills must be non-liquid which can be properly managed in accordance with the "Solid Waste Management Rules". APPROVAL TO DISPOSE OF THE WASTE SHALL ALSO BE OBTAINED FROM THE OWNER OR OPERATOR OF THE LANDFILL PRIOR TO DISPOSAL.

The following information is required for an evaluation. Incomplete waste determination forms will be returned to the generator without review. An asterisk(*) denotes information required for Publicly Owned Treatment Works.

A * GENERAL INFORMATION

1. Name, TELEPHONE NUMBER and mailing address of facility or person generating waste
McGuire Nuclear Station
12700 Hagers Ferry Road
Huntersville, NC 28078-8985
2. Specific location of waste (i.e. SR. #, county, city, etc...)
Duke Power Generated Waste
3. What is the waste? Oil Spill Clean-up Material
4. What volume of disposal will there be? Non-routine - 300 yd³/yr, routine - 2000 yd³/yr
5. What frequency of disposal will there be? Large Quantities - Annually, Small Quantities
6. Explain either the manufacturing process or how the waste was generated. Daily
Oil Spill Clean-up

B INFORMATION FOR HAZARDOUS (RCRA) DETERMINATION (10 NCAC 10F .0029)

1. Is the waste listed under .0029(e) (i.e., 40 CFR 261.31 - 261.33)? If yes, list number. No
- *2. Does the waste exhibit any of the four characteristics as defined by .0029(d) (i.e., 40 CFR 261.21-261.24)? (Attach laboratory results for EP Toxicity, Reactivity, Ignitability, Corrosivity.) No

C INFORMATION FOR LANDFILLING DETERMINATION

1. Does the waste contain any hazardous waste constituents listed in .0029(e), Appendix VIII (i.e., 40 CFR 261, Appendix VIII)? If yes, what constituents and what concentration? (Attach laboratory results) No
2. What other constituents are present and in what concentration? (Attach laboratory results) See attached TCLP results.
3. Will the handling and disposal of this waste create dust emissions which may cause a health hazard or nuisance to landfill personnel. No
- *4. Does the waste pass the "paint filter" test for free liquids (Method 9095 in S.W. 846)? (Attach laboratory results) Yes
- *5. Which solid waste management facility is the request for (name of landfill and permit number, incinerator, etc...)? McGuire Nuclear Station, Permit 60-04 Lined Expansion
- *6. Specify how the waste will be delivered - in bulk or containers (i.e. barrels, bags, etc.) 13 yd³ Dump Trucks

HAZARDOUS WASTE SAMPLE RESULTS
APPLIED SCIENCE CENTER

STATION : MCGUIRE NUCLEAR STATION

SAMPLE ID. : 91020 OIL SPILL CLEANUP MATERIAL

CHM. SCI. #: 9104107-03

ANALYSIS	RESULT	LIMIT (10% OF LIMIT)
AG:	<0.05 mg/l	5.0 mg/l (0.5 mg/l)
BA:	0.18 mg/l	100 mg/l (10 mg/l)
CD:	<0.01 mg/l	1.0 mg/l (0.1 mg/l)
CR:	<0.05 mg/l	5.0 mg/l (0.5 mg/l)
PB:	<0.3 mg/l	5.0 mg/l (0.5 mg/l)
AS:	0.0013 mg/l	5.0 mg/l (0.5 mg/l)
SE:	<0.002 mg/l	1.0 mg/l (0.1 mg/l)
HG:	<0.01 mg/l	0.2 mg/l (0.02 mg/l)
NI:	<0.1 mg/l	134 mg/l (13.4 mg/l)
TL:	<0.5 mg/l	130 mg/l (13.0 mg/l)
% ASH:	N/R %	NO LIMIT
BTU:	N/R BTU/lb	NO LIMIT
TOT. S	N/R % wt.	NO LIMIT
TOT. CL	N/R % wt.	NO LIMIT
FLASH PT.	N/R Deg. F	< 140 Deg. F
pH:	6.31 Value	<2.0 or >12.5
% WATER	N/R % wt.	NO LIMIT

N/R: NOT REQUESTED.

CERTIFICATE OF ANALYSIS

Set 593

Service Location EMS HERITAGE LABORATORIES, INC. 4132 POMPANO ST. CHARLOTTE, NC 28216 (704)393-1853	Received	28-SEP-90	Lab ID	B105818
	Complete	19-NOV-90	PO Number	W01814-72 827272
	Printed	20-NOV-90	Sampled	21-SEP-90 10:20

Report To DUKE POWER COMPANY JOHN MEASE 13339 HAGERS FERRY RD. HUNTERVILLE, NC 28078	Bill To DUKE POWER COMPANY ACCOUNTS PAYABLE P.O. BOX 32307 CHARLOTTE, NC 28232
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Sample Description

SAMPLE DESCRIPTION: SNSWP OIL SPILL
SET NUMBER: 593
CONTRACT ORDER NUMBER: W01814-72
LOCATION: PRODUCTION ENVIRONMENTAL SERVICES

TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 Test: P107.1. 0

Analyst: J. RICE Analysis Date: 03-OCT-90

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	99.52		Grams
LIQUID FRACTION (GRAMS)	0		Grams
EXTRACTED SAMPLE SOLIDS	99.52		Grams
9.5 MM SIEVE TEST			NA
INITIAL PH	5.54		Passed
ADJUSTED PH	1.85		Std. Units
BUFFER SOLUTION PH	4.96		Std. Units
FINAL PH	4.69		Std. Units
VOLUME BUFFERED SOLUTION	2000		mL
VOLUME EXTRACT FILTERED	2000		mL
LIQUID FRACTION	0		mL
TOTAL VOLUME FILTRATE	2000		mL
INITIAL TIME	1700		HRS
FINAL TIME	1100		HRS
PHASE ONE VOLUME (REP 0)			mL
PHASE TWO VOLUME (REP 1)			mL

GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510 Test: P233.4. 0

Analyst: J. RICE Analysis Date: 04-NOV-90

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	1.0		mL

EMS HERITAGE LABORATORIES, INC.

Lab Sample ID: B105818

TCLP SEMIVOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8270

Analyst: J. FREEMAN-WALCHESKI

Analysis Date: 10-OCT-90 Instrument: GC/MS SVOA

Test: 0514.3. 0

Prep: GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Parameter	Corrected Result	Detection Limit	Units	Observed Result	Matrix Spike True Value	Sample + Spike	Matrix Spike % Recovery
1,4-DICHLOROBENZENE		50	ug/L	BDL			
2,4-DINITROTOLUENE		50	ug/L	BDL			
HEXACHLOROBENZENE		50	ug/L	BDL			
HEXACHLOROSUTADIENE		50	ug/L	BDL			
HEXACHLOROETHANE		50	ug/L	BDL			
NITROBENZENE		50	ug/L	BDL			
PYRIDINE		250	ug/L	BDL			
CRESYLIC ACID		120	ug/L	BDL			
2-METHYL PHENOL		50	ug/L	BDL			
3-METHYL PHENOL		50	ug/L	BDL			
4-METHYLPHENOL		50	ug/L	BDL			
PENTACHLOROPHENOL		250	ug/L	BDL			
2,4,5-TRICHLOROPHENOL		250	ug/L	BDL			
2,4,6-TRICHLOROPHENOL		50	ug/L	BDL			
SURROGATE RECOVERY							

2-FLUOROPHENOL			% Rec	60			
PHENOL-D5			% Rec	34			
NITROBENZENE-D5			% Rec	100			
2-FLUOROBIPHENYL			% Rec	99			
2,4,6-TRIBROMOPHENOL			% Rec	99			
BIPHENYL-D14			% Rec	* 163			

Note: * - Surrogate recovery outside of QC Limits.

ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

Analyst: J. RICE

Analysis Date: 03-OCT-90

Test: P108.1. 0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	24.98		Grams
LIQUID PORTION	0		mL
LIQUID FRACTION (GRAMS)	0		Grams
EXTRACTED SAMPLE	24.98		Grams

TCLP VOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8240

Analyst: M. PIOWAR

Analysis Date: 05-OCT-90

Instrument: GC/MS VOA

Test: 0513.3. 0

Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

Parameter	Corrected Result	Detection Limit	Units	Observed Result	Matrix Spike True Value	Sample + Spike	Matrix Spike % Recovery
BENZENE		100	ug/L	BDL			
CARBON TETRACHLORIDE		100	ug/L	BDL			
CHLOROBENZENE		100	ug/L	BDL			
CHLOROFORM		100	ug/L	BDL			
1,2-DICHLOROETHANE		100	ug/L	BDL			
1,1-DICHLOROETHYLENE		100	ug/L	BDL			
METHYL ETHYL KETONE		200	ug/L	BDL			
TETRACHLOROETHYLENE		100	ug/L	BDL			
TRICHLOROETHYLENE		100	ug/L	BDL			
ETHYL CHLORIDE		200	ug/L	BDL			
SURROGATE RECOVERY							

EMS HERITAGE LABORATORIES, INC.

Lab Sample ID: B105818

Parameter	Corrected Result	Detection Limit	Units	Observed Result	Matrix Spike True Value	Sample + Spike	Matrix Spike % Recovery
DIETHYLENE-D4			% Rec	106			
TOLUENE-D8			% Rec	107			
BROMOFLUOROBENZENE			% Rec	110			

Sample Comments

TCLP results are not corrected by matrix spike recoveries.

* See Note for Parameter
BDL Below Detection Limit
RT Retention Time

Quality Assurance Officer: Chelbouth MB Jansen

Last Page 3

Attachment 1

ATTACH. 1



~~JRH~~ ~~WJM~~ PEH

State of North Carolina
Department of Environment, Health, and Natural Resources

Division of Parks and Recreation
512 North Salisbury Street • Raleigh, North Carolina 27611

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

Dr. Philip K. McKnelly
Director

June 15, 1990

Mr. Philip R. Hammond
Engineering Support Division
Design Engineering Department
Duke Power Company
P.O. Box 33189
Charlotte, NC 28242

Subject: Landfill siting site, McGuire Nuclear
Station, Mecklenburg Co.

Dear Mr. Hammond:

Thank you for consulting with our program in the "scoping" phase of planning for the construction of an industrial waste landfill adjacent to the McGuire Nuclear Station. The Natural Heritage Program maintains the statewide data inventory for rare and endangered species and special natural areas. We expect that Duke Power's staff biologists will conduct a more detailed environmental impact assessment for the landfill, including an evaluation of effects on ecological resources. However, the N.C. Natural Heritage Program possesses no records of endangered, rare or sensitive species or significant natural areas in the near vicinity of the site. We know of no potential impacts on any state-owned park, recreation area, or scenic area.

Sincerely,

Handwritten signature of Charles Roe in cursive.

Charles Roe, Head
N.C. Natural Heritage Program

Enclosures

Attachment 2

ATTACH. 2



~~SRH-wsm~~ PRH

North Carolina Department of Cultural Resources

James G. Martin, Governor
Patric Dorsey, Secretary

Division of Archives and History
William S. Price, Jr., Director

June 25, 1990

Phillip R. Hammond, Design Engineer
Design Engineering Department
Duke Power Company
P.O. Box 33189
Charlotte, N.C. 28242

Re: Industrial Landfill, Mecklenburg County
GS 90-0065

RECEIVED
CIVIL ENVIRONMENTAL
SUPPORT SECTION
JUN 26 1990
CENTRAL RECORDS/DIVISION USE
NO ATTACHMENT TO FILE
FILE NO. _____

Dear Mr. Hammond:

Thank you for your letter of June 6, 1990, concerning the above project.

We have conducted a review of the project and are aware of no properties of architectural, historic, or archaeological significance which would be affected by the project. Therefore, we have no comment on the project as currently proposed.

These comments are made in accord with G.S. 121-12(a) and Executive Order XVI. If you have any questions regarding them, please contact Ms. Renee Gledhill-Earley, environmental review coordinator, at 733-4763.

Sincerely,

David Brook
Deputy State Historic Preservation Officer

DB:slw

Attachment 3

TSC,
Re: MNS Landfill



Note cond.
"H."

PRH
7/30

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402-1890

July 25, 1990

JCH 000000 PRH

RECEIVED
CIVIL/ENVIRONMENTAL
SUPPORT SECTION

JUL 27 1990

CENTRAL RECORDS/DIVISION USE
NO ATTACHMENT TO FILE
FILE NO.

IN REPLY REFER TO

Regulatory Branch

SUBJECT: Nationwide Permit No. 14 and CESAW-CO90-D-060

Mr. Philip R. Hammond
Design Engineering Department
Duke Power Company
Post Office Box 33189
Charlotte, North Carolina 28242

Dear Mr. Hammond:

Thank you for your inquiry of June 6, 1990, regarding your plans to construct an industrial sanitary waste landfill and an access road on property adjacent to McGuire Nuclear Station near Cornelius, Mecklenburg County, North Carolina.

Our review of the plans provided with your letter as well as pertinent topographic and soils maps of the area indicate that the proposed landfill would be located entirely on uplands and not within any areas over which we have regulatory authority. The proposed access road to the landfill site would cross a small, unnamed tributary to the Catawba River. It is our understanding that a culverted fill would be constructed.

For the purposes of the Corps of Engineers' Regulatory Program, Title 33, Code of Federal Regulations (CFR), Part 330, published in the Federal Register on November 13, 1986, lists nationwide permits. Authorization was provided for minor road crossing fills including all attendant features, both temporary and permanent, that are part of a single and complete project for crossing of a non-tidal waterbody, provided that the crossing is culverted, bridged or otherwise designed to prevent the restriction of, and to withstand expected high flows and provided further that discharges into any wetlands adjacent to the waterbody do not extend beyond 100 feet on either side of the ordinary high water mark of that waterbody.

Your work is authorized by nationwide permit provided it is accomplished in strict accordance with the enclosed conditions. Please be aware that this authorization does not relieve you of the responsibility to obtain any required State or local approval.

If you have questions, please contact Mr. Steven Lund, Regulatory Branch, Asheville Field Office, telephone (704) 259-0857.

Sincerely,

G. Wayne Wright
Chief, Regulatory Branch

Enclosure

Attachment 4

Drawing Under Seperate Cover

Attachment 5



ROAD CLASSIFICATION

- Primary highway, hard surface
- Light-duty road, hard or improved surface
- Secondary highway, hard surface
- Unimproved road
- Interstate Route
- U. S. Route
- State Route

■ SIGNIFICANT GROUNDWATER USER

LAKE NORMAN SOUTH, N. C.
 N3522.5—W8052.5/7.5

1970

AMS 4854 IV NW—SERIES V842

SCALE 1:24,000

1 MILE

Attachment 6



~~JEL. WSM~~ PRH

MECKLENBURG COUNTY

Charlotte-Mecklenburg
Building Standards Department

July 10, 1990

Mr. Philip R. Hammond
Design Engineer
Duke Power Company
P.O. Box 33189
Charlotte, NC 28242

RE: **INDUSTRIAL LANDFILL SITING APPROVAL**
FILE NO: MG-Landfill 100

Dear Mr. Hammond:

As I have previously indicated during our telephone conversation, Section 3141.8 of the Mecklenburg County Zoning Ordinance states:

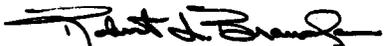
Any demolition landfill which existed prior to the adoption of this section (Adopted May 1, 1990), but which does not comply with the standards of this section must be brought into compliance with those standard according to the following schedule.

Based on the information you submitted in your June 29, 1990 letter to me, the state approved a four hundred and fifty-seven (457) acres as a landfill site on January 27, 1981. Prior to June 1986, demolition landfill approval required only a letter from this department and the compliance of the state requirements.

As a result of prior approval and the requirements of Section 3141.8 for previously approved demolition landfills over 30 acres, this site is considered a legal nonconforming demolition landfill, with compliance of the standards of the ordinance within five years after May 1, 1989.

If additional information is needed, please contact me at (704) 336-3567.

Sincerely,


Robert L. Brandon,
Zoning Administrator

544-HH/psh

Attachment 7

PERMIT NO. 60-04

DATE ISSUED 1/27/81

STATE OF NORTH CAROLINA
DEPARTMENT OF HUMAN RESOURCES
Division of Health Services
P.O. Box 2091 Raleigh 27602

SOLID WASTE PERMIT

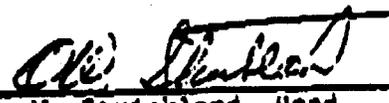
DUKE POWER COMPANY is hereby issued a permit to
operate a SANITARY LANDFILL
located SR 2133, MECKLENBURG COUNTY

in accordance with Article 13B of the General Statutes of North Carolina and all
rules promulgated thereunder. The facility is located on the below described
property.

SIXTH: That tract of land adjoining the lands now or formerly owned by Mrs. Jane Black, C. H. Stephens, J. T. Cashion, E. C. Stephens, J. M. Stephens, Caldwell & Stilwell and others, bounded as follows: BEGINNING at a Black Gum on Catawba River, corner of Mrs. Jane Black's; then with her line North 45 East, 1600-feet to a stone, W. O. Pointers; then South 19 East with her line, 1500-feet to a stone; then again with her line North 67½ East, 2390-feet to a stone, R. O. Pointers; then with line of tract recently sold by Jno. W. Graham to C. H. Stephens South 13 East, 1980-feet to a stone and Peach Tree; then with the line of J. T. Cashion South 7 West, 1180-feet to a stone; then with the line of E. C. Stephens South 4½ West, 858-feet to a Poplar; then with the line of J. M. Stephens & Caldwell South 79½ West, 2320 feet to a stone, Caldwell's corner; then South 52 East, 486½ feet to a Hickory, his corner; then South 25½ West, 365-feet to a stone, corner of H. H. Stilwell; then with his line North 89 West 2955-feet to a Hickory (down) on a branch; then with the same South 45 3/4 West, 240-feet.



Hugh X. Tilson, M.D.
Director
Division of Health Services



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

PERMIT NO. 60-04DATE ISSUED 1/27/91**SOLID WASTE PERMIT****Property Description (Continued):**

to Catawba River, at mouth of said branch; then up the Catawba River as it meanders to the BEGINNING, containing 457-acres by survey of J. B. Spratt, recently made, embracing the Montrose tract and Stinson tracts; being the same tract of land, which was conveyed to the Charlotte Consolidated Construction Company by Thomas T. Allison and wife, by deed dated the 1st. day of January A. D., 1907, and recorded in said Mecklenburg County.

PERMIT NO. 60-04DATE ISSUED 1/27/81**SOLID WASTE PERMIT****Conditions of Permit:**

1. The following requirements shall be met prior to receiving solid waste at the site:
 - a. Filing of the certified copy of the permit with the register of deeds.
 - b. Site preparation in accordance with operational plan.
 - c. Site inspection made by a representative of the Division of Health Services.
 - d. Posting of the solid waste permit number on the entrance sign to the landfill.
2. The landfill shall cease accepting waste no later than December 31, 1983, at which time an inspection will be made by a representative of the Division of Health Services to determine compliance with closeout procedures.



STATE OF NORTH CAROLINA
 DEPARTMENT OF HUMAN RESOURCES
 Division of Health Services

JAMES B. HUNT, JR.
 GOVERNOR

HUGH H. TILSON, M.D.
 DIRECTOR

SARAN T. MORROW, M.D., M.P.H.
 SECRETARY

P. O. Box 2091

Raleigh 27602

CERTIFIED COPY OF SOLID WASTE PERMIT

I do hereby certify that the attached Permit is an exact and true copy of Permit No. 6C-04.

O. W. Strickland

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

North Carolina

Wake County

I, Neil Z. Bell, a Notary Public for said

County and State, do hereby certify that [Signature] personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal, this the 27th day of

January, 19 81.

(Official Seal)

Neil Z. Bell
 Notary Public

My commission expires July 54, 19 82.

Attachment 8

NORTH CAROLINA,
MECKLENBURG COUNTY.

THIS DEED, made this, the 1st day of April,
1913, by the MECKLENBURG POWER & TRACTION COMPANY, a corporation,
organized under the laws of the State of North Carolina, with its
principal office in the City of Charlotte, in said State, party
of the first part, to the CATAWBA MANUFACTURING & ELECTRIC POWER
COMPANY, a corporation, organized under the laws of the State of
North Carolina, with its principal office in the County of Gaston,
in said State, party of the second part,

W I T N E S S E T H:

That the party of the first part, for and in considera-
tion of the sum of \$10.00 and other valuable considerations, paid
by the party of the second part, the receipt of which is hereby
acknowledged, has granted, bargained and sold, and by these pres-
ents does grant, bargain, sell and convey unto the Catawba Manu-
facturing & Electric Power Company, party of the second part, its
successors and assigns, all those pieces or parcels of land, lying
and being in Mecklenburg County, State of North Carolina, and par-
ticularly bounded and described as follows:

(3)
water

FIRST: That tract of land, partly under water, known as
"Big Island", lying in Catawba River on the line between Mecklen-
burg and Lincoln Counties, near Seattle's Ferry, and bounded as fol-
lows: BEGINNING at a stake on the East bank of Catawba River, at
the corner of the Connor lands, and runs thence up the East bank
of Catawba River 200-poles to a Hickory on the East bank of the
river; then up the East bank of said river North 40 West, 75-
poles to a Maple on the bank of the river; thence East 40-poles to
a stake at the edge of the water on the West side of the Island;
thence down the waters edge on the West side of said Island to the
lower end of same; thence to the BEGINNING, containing, by esti-
mation, 90-acres.

Deed No. LM-18-E
Book 512 Page 250

SECOND: That tract of land BEGINNING at a stake on the East bank of the Catawba River and on the North bank of the Patterson Branch, which enters said river, said stake being in the line of a contour of elevation run from Beattie's Ford and being about 375 feet North of the point where the dividing line between said M. L. Patterson's land and the land of Pat Stough touches said Catawba River, and about 3262 feet South of the dividing line between said Patterson and Wilson, where said line touches said river; and runs thence up the Northern bank of said branch, along the said contour elevation from Beattie's Ford water level North 35°-50' East, 112-feet to a stake; thence North 68°-45' East, 35-feet; North 1°-10' East, 324-feet; N. 72°-10' East, 100-feet; North 8°-10' West, 442-feet; North 22°-30' West, 458-feet; North 79°-15' East, 44-feet, crossing a fork of said branch; thence South 34°-20' East 500-feet; South 10°-East, 288-feet; South 29°-45' East, 183-feet; South 15°-30' West, 75-feet; North 80°-East, 31-feet; North 38°-30' East, 270 feet; South 89°-15' East, 47-feet, crossing another fork of said branch; thence South 38°-West, 210-feet; South 37°-15' East, 28-feet; North 80°-45' East, 228-feet to a stake in another fork of said branch; thence South 64°-30' West, 307-feet; South 87°-35' West, 140-feet; South 65°-45' West, 197-feet; South 24°-05', 270-feet; South 79°-15' West, 127-feet; North 73°-45' West, 143-feet to a stake on the South bank of said branch; thence along its South bank South 38°-30' West, 143-feet to a stake on the East bank of said Catawba River and the South bank of said branch; thence up the river and across said branch North 35° West, 20-feet to the BEGINNING, containing 5.32-acres; said courses and distances being the line of the said contour of elevation run on a level with the water in the Catawba River at Beattie's Ford, which said level line is to be taken as the boundary of the 5.32 acres of land herein conveyed, be it the same or less; together with the sole and exclusive right to raise the water in said Catawba River to such a height as will back its waters in said branch and over the lands of Miss M. L. Patterson, as is embraced within said contour of elevation from Beattie's Ford, being the same tract of land and water rights and privileges conveyed to the Charlotte Consolidated Construction Company by Miss M. L. Patterson, by deed dated the 12th. day of September, A. D., 1907, and recorded in Mecklenburg County, North Carolina, in Book 226, page 420.

THIRD: All the right, title, interest, privilege and claim both in law and equity, of, in and to that certain parcel of land lying in said County, on the East side of the Catawba River, surrounding and including the Ferry landing, about one (1) acre, the same being the Eastern terminal of what is now known as "Barker's Ferry" (formerly known as "Hager's Ferry"). Also the road from said landing to the bridge across the creek dividing the lands of J. D. Brown and H. H. Stillwell, as far as the land of H. H. Stillwell goes, South along the said river, said road to run as it now goes. This deed being made for the purpose of conveying to and vesting in the party of the second part all the right, title and

... and conveyed to J. L. Hager by deed dated the 15th day of December, 1906, and recorded in the office of the Register of Deeds of Mecklenburg County, North Carolina, in Book 11, page 350, and the said J. L. Hager devised to Jane Nixon (then Jane Edward), as will appear on the records of Lincoln County, North Carolina, to all of which records reference is hereby made for a more particular description; being all the right, title, interests, privileges and claim, both in law and equity, acquired by the Charlotte Consolidated Construction Company, by deed from James Nixon, dated the 11th day of October, A. D., 1907, and recorded in said Mecklenburg County, North Carolina, in Book 226, page 598.

④
FOURTH: Being a part of that piece of land, which was conveyed by J. L. Jetton, Commissioner, to J. D. Brown, which is recorded in the office of Register of Deeds of Mecklenburg County, in Book 139, page 322, conveying a one-half interest in said lands, the other one-half being devised by R. H. Johnson to said Mary C. Brown in his last will and testament, as appears of record in the office of the Clerk of the Superior Court of Mecklenburg County, in Will Book "S", page 240, said lands herein conveyed being described as follows: BEGINNING at a stone on the East side of Catawba River at the North bank of the mouth of the Creek, and runs down said river South $31\frac{1}{2}$ West, 166-poles, running along the East edge of the island to a stone at the Southern point of said island then South $28\frac{1}{2}$ East, $38\frac{1}{3}$ poles to a Dogwood; then North $33\frac{1}{3}$ poles, a new line to a Pine; then another new line North $58\frac{1}{2}$ East, 60-poles to a stone; then North 7° West, $12\frac{1}{8}$ poles to a Poplar; then North 40° East, 51-poles to a stump; then North 40° West, 38 poles to a stone; then North 5° East, 38-poles to a dead Oak stump; then North 25° West, 50-poles to the BEGINNING containing 50-acres, more or less, The said land herein conveyed is the same surveyed by J. B. Spratt, according to which survey this description is taken, said survey having been made May 15th, 1906; and is the same land conveyed by J. D. Brown and wife, Mary C. Brown, to W. F. Harding, by deed recorded in the office of the Register of Deeds of Mecklenburg County, in Book 209, page 433, and conveyed to the Charlotte Consolidated Construction Company by the said W. F. Harding, by deed dated the 20th day of August, 1906, and recorded in said Mecklenburg County, in Book 226, page 444.

①
FIFTH: BEGINNING at a stake on the upper end of the "Big Island" at Cowan's Ford, Mrs. Julia A. Clark's corner on said "Big Island", and runs thence South $41^{\circ}-30'$ East, crossing the Eastern prong of said river, 1420-feet, along Julia A. Clark's line, to a stake, another corner of the said Julia A. Clark's land, and formerly the South point of "Bussard Island"; thence with said Clark's line North 61° East, 241-feet to a stake, just South of a branch; thence South $42^{\circ}-20'$ West, 151-feet to a stake; thence South $22^{\circ}-30'$ West, 155-feet to a stake; thence South 30° West, 154-feet to a stake; thence South $2^{\circ}-30'$ East, 100-

EIGHTH: Also all the right, title and interest of the party of the first part in and to that certain option executed and delivered to the Charlotte Consolidated Construction Company by Jane Black, dated the 12th. day of October, A. D., 1907, and recorded in said Mecklenburg County, in Book 224, page 554.

NINTH: Lying and being in Paw Creek Township, Mecklenburg County, State of North Carolina, adjoining the lands of E. H. Rossell, Wash Dunn and others, and bounded as follows: BEGINNING at a stake on the Southeast bank of Catawba river, Dunn's corner, and runs with his line S. 76 poles to a stake and pointers; thence S. 58 $\frac{1}{2}$ W. 74- $\frac{7}{8}$ poles to a stone; thence S. 30- $\frac{3}{4}$ E. 74 poles to a stone on Rossell's line; thence with said line S. 58- $\frac{3}{4}$ W. 54- $\frac{2}{5}$ poles to a large Black Oak; thence N. 56- $\frac{1}{2}$ W. 31 poles to a stake; thence N. 31 W. 71- $\frac{1}{4}$ poles to a B. O. down; thence with Rossell's line N. 18- $\frac{2}{3}$ E. 147 poles to a rock in the mouth of a branch on the bank of the river; thence up the river as it meanders, 105 poles to the beginning, containing 105-acres; being a part of the Morrow tract of land; being same tract of land described in deed from D.S. Underwood to S.M. Underwood, dated Jan. 20th, 1903, and recorded in Register of Deeds office Mecklenburg County aforesaid, and being in all respects the same tract of land as was conveyed by J. H. Underwood to Jno. R. Flagg by deed dated Sept. 21, 1897, and duly recorded in the Register of Deeds Mecklenburg County, Book 179, at page 582, and to which reference is herein throughout.

TENTH: Lying and being in Long Creek Township, Mecklenburg County, State of North Carolina, and more particularly described as follows: - BEGINNING at a Hickory on the bank of the Catawba River, corner of the John L. Parks' land, and runs with the line of said Parks' land S. 25 E. 188 poles to a Hickory and a corner of the Parks' land and the land of Robert D. Osborne; thence with said Osborne's line S. 8 E. 188 poles to a Hickory stump on the bank of the river; thence up the river, with its various curves to the BEGINNING, containing 137-acres, more or less, and being the same tract of land that was conveyed to the said W. F. Sample by J. B. Alexander and wife by deed, dated the 19th day of November, A. D., 1910, and duly recorded in the office of the Register of Deeds for Mecklenburg County, to which reference is hereby made.

ELEVENTH: BEGINNING at a point on the Catawba River, at the mouth of a branch at the corner of Lot No. 6, a corner of the Graham and Stilwell lands; and runs thence with two of the lines, first, N. 47 E. 251-feet to a Hickory stump on bank of branch; thence, second, due East 450 feet to a stake in line; thence S. 9 E. 450- $\frac{1}{2}$ feet to a Pine; thence S. 20 E. 440-feet to a Pine; thence S. 62 W. 468 feet to a Willow on bank of the Catawba River; thence up the river to the point BEGINNING, containing 12.8 acres, as shown by a survey of R. D. Gibbon, C. E., made on the second day of May, 1906. The above described land is a part of Lots Nos. 6 & 7 of the R. D. lands and is the same tract of land that was conveyed to the

... J. W. Stillwell and wife, by deed date ... 1908, and duly recorded in the office ... Mecklenburg County, North Carolina ... page 163, to which deed reference is hereby made ... particular description.

Also all the rights, privileges and easements reserved by the party of the first part herein in and by a certain deed, executed by it to the City of Charlotte, dated 5th. day of April, 1913, and recorded in the Register's office for Mecklenburg County, in Book 305, page 647, and subject only to the rights, privileges and easements granted and conveyed to the said City of Charlotte in and by the said deed above referred to, reference to which is hereby made for a more perfect description of the rights, privileges and easements therein and thereby reserved and conveyed.

TO HAVE AND TO HOLD the before mentioned tracts ... with all the privileges and appurtenances thereunto belonging to the said party of the second part, its successors and assigns, in fee simple forever.

AND the party of the first part, for the consideration aforesaid, covenants that it is seized of said premises in fee, and has the right to convey the same in fee simple; that the same are free and clear from all incumbrances, and that it will warrant and defend the title thereto to the party of the second part, its successors and assigns, against the claims of all persons whatsoever.

IN WITNESS WHEREOF, the party of the first part has caused its name to be hereto signed by its President, its corporate seal hereto affixed, duly attested by its Secretary, the day and year first above written.

ATTEST:

J. W. Allison
SECRETARY.

M. P. E.
Mecklenburg Power & Traction
BY *[Signature]*
PRESIDENT.

Secretary of State (Official Seal), and that he, the Secretary of State, has caused the recording of said instrument

NORTH CAROLINA
WICKLIFF COUNTY

The foregoing certificate
of B. D. Terrell
of Wickliff County

is true and correct according to the records of the Clerk of the Superior Court. Let the instrument and this certificate be registered this 17th of June 1913

Carroll C. S. C.

and proceeded
and proceedings
and proceedings
and proceedings

Faint, illegible text in the lower right section of the page, possibly containing a signature or additional official information.

Attachment 9

Development

McGuire

See Dwg

File No.

Project

Land fill - Top @ El. 765' 0"

Cut Vol.

DLG

3-6-90

Sect.	STATION	AREA	DOUBLE AREA	DIST.	DOUBLE VOLUME	VOLUME
		Sq. Ft.	Sq. Ft.	Ft.	Cu. Ft.	Cu. Yds.
	0	—				
1	55	4402	4402	55		4483.5
2	155	5244	9646	100		17863.0
3	255	5162	10406	100		19270.4
4	355	5322	10484	100		19414.8
5	455	6146	11468	100		21237.0
6	555	7200	13346	100		24714.8
6	585	7200	14400	30		8000.0
7	655	0	7200	70		9333.3
						124,317
						24,101

Development

See Dwg.

File No

Subject

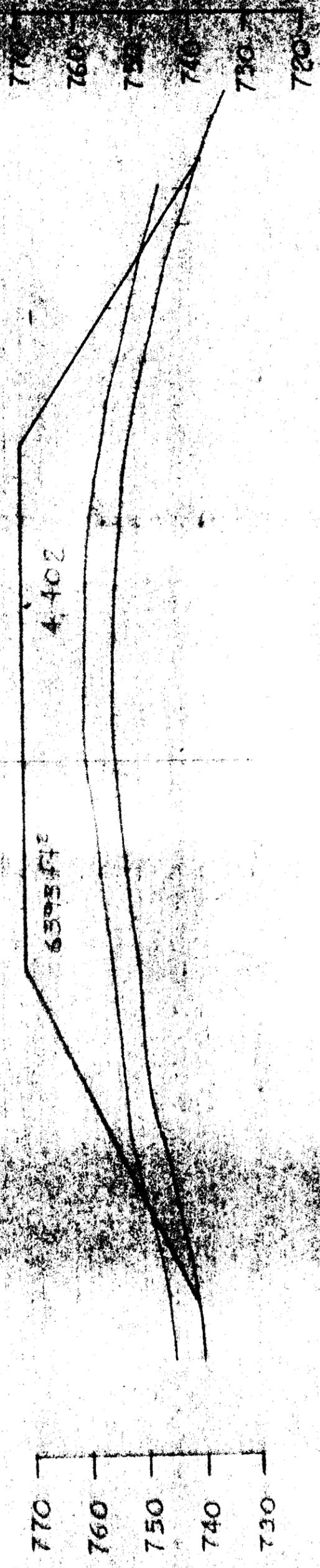
Sheet

Date

Sed

STATION	AREA Sq. Ft.	DOUBLE AREA Sq. Ft.	DIST. Ft.	DOUBLE VOLUME Cu. Ft.	VOLUME Cu. Yds.
0	—				
1	55				
2	155	3186	100		5900.0
3	255	2481	100		10494.4
4	355	1496	100		7364.8
5	455	690	100		4048.2
6	555	256	100		1751.9
6'	585	256	30		284.4
7	655	31	70		372.0
					30,216

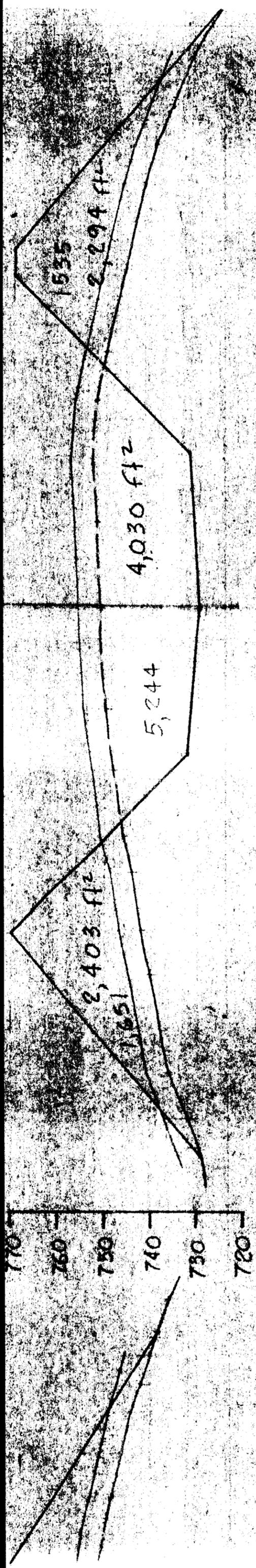
H = 50' V = 20' V



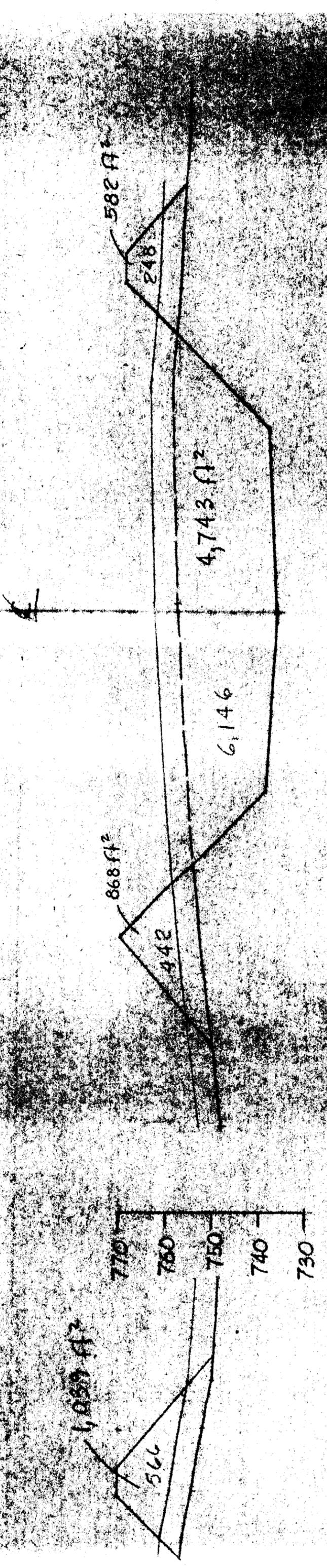
SECTION H-H

SCALE : 1" = 50' HORIZ
1" = 20' VERT.

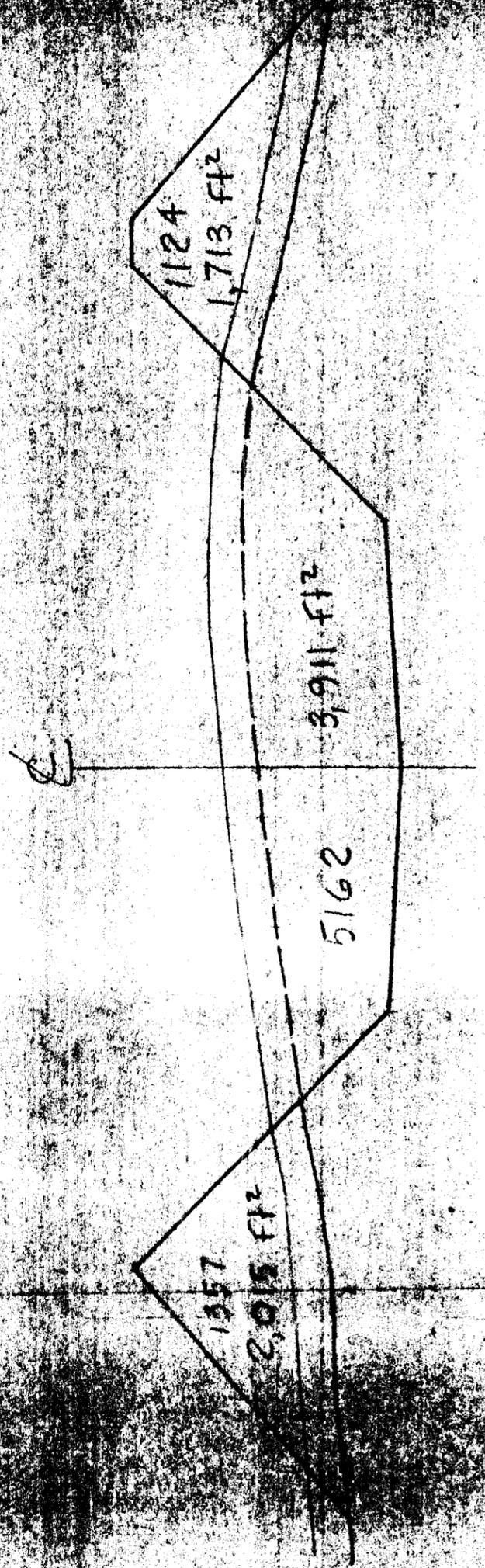
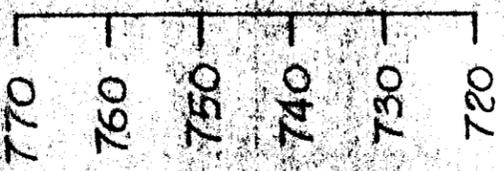
ATTACH. # 9



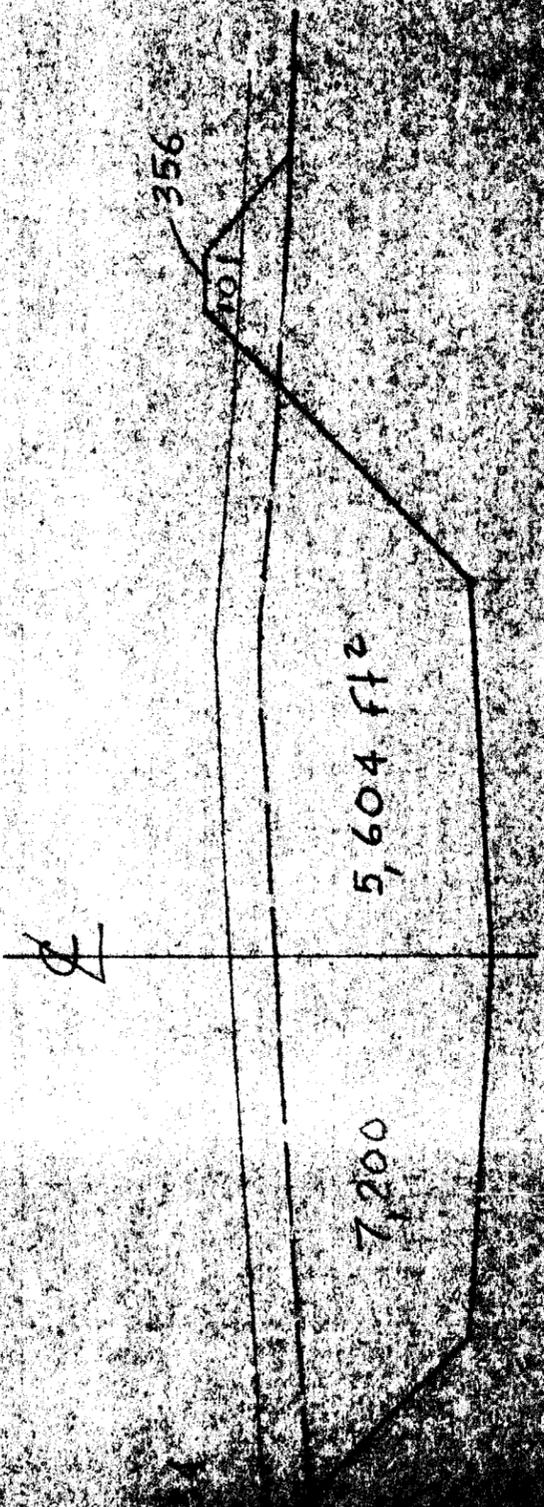
SECTION 2-2



SECTION 5-5

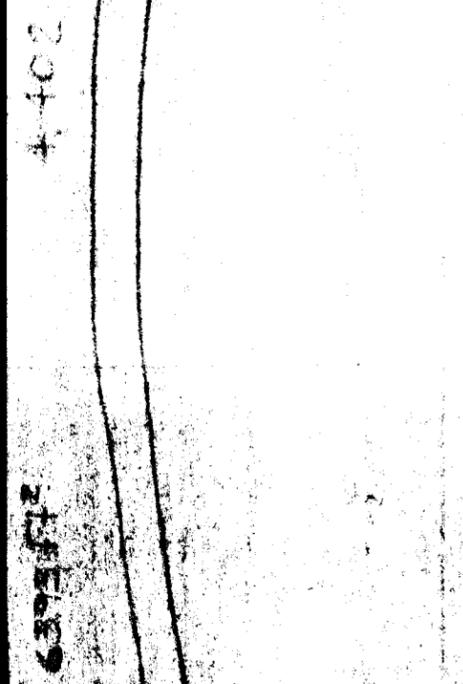
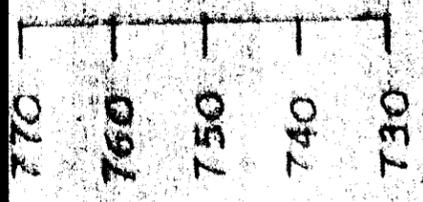


SECTION 3-3

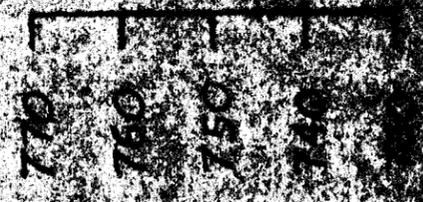
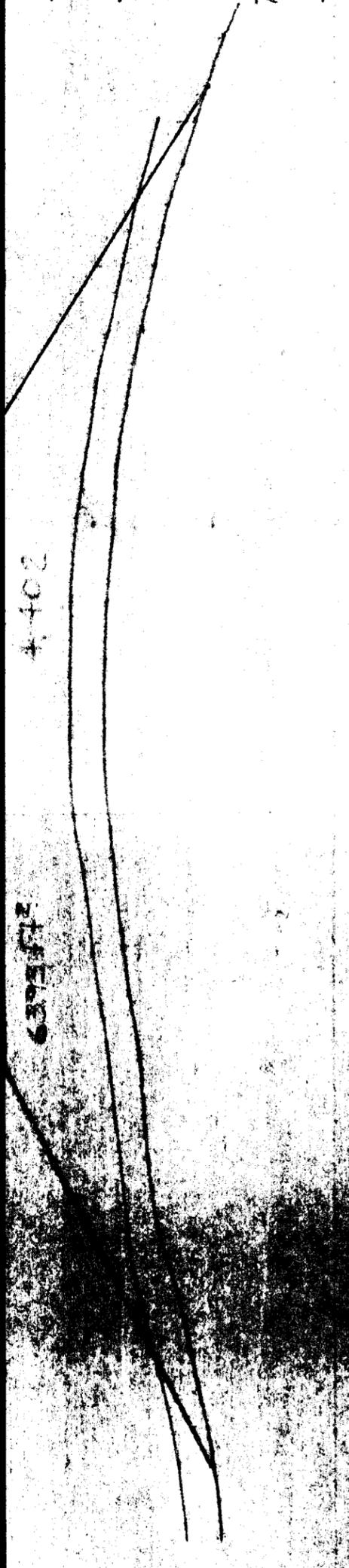
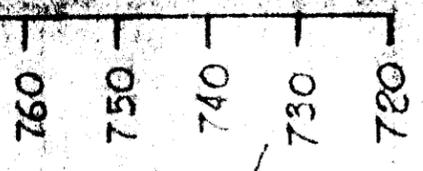


SECTION 3-6

32 ft²



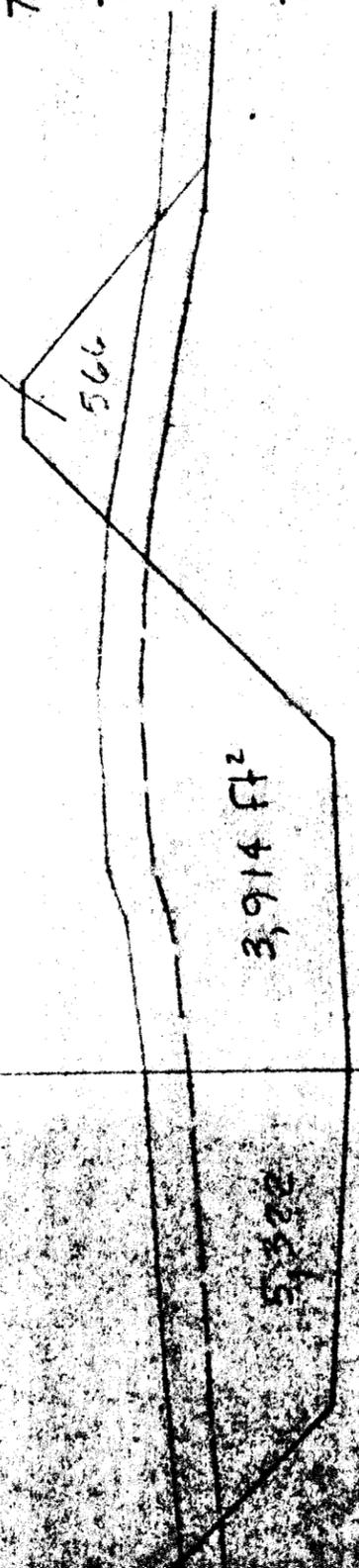
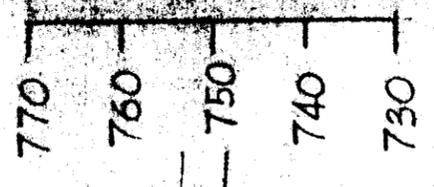
SECTION 1-1



460 ft²

⊥

1,039 ft²



SECTION 4-4

SECTION 4-4

31 ft²

1,213 ft²

SECTION 4-4

