

STATE OF NORTH CAROLINA
DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
DIVISION OF ENVIRONMENTAL MANAGEMENT
P E R M I T
TO DISCHARGE WASTEWATER UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

Duke Power Company

is hereby authorized to discharge wastewater from a facility located at

McGuire Nuclear Station
Mecklenburg County

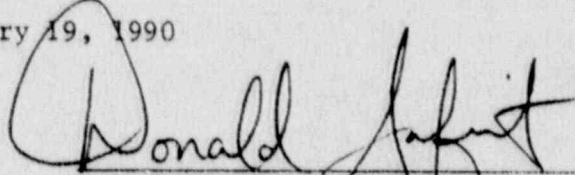
to receiving waters designated as Catawba River in the Catawba River Basin

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit shall become effective February 1, 1990

This permit and the authorization to discharge shall expire at midnight on January 31, 1995

Signed this day January 19, 1990



R. Paul Wilms, Director
Division of Environmental Management
By Authority of the Environmental Management Commission

9003230121
PDR APOCK
P

900314
05000369
PDC

SUPPLEMENT TO PERMIT COVER SHEET

Duke Power Company

is hereby authorized to:

1. Continue to operate wastewater treatment facilities necessary to comply with final effluent limitations contained in this permit located at the McGuire Nuclear Station (See Part III of this Permit), and
2. Continue to discharge condenser cooling water, conventional low pressure service water, nuclear service water, and turbine building sumps (outfall 001) at the location specified on the attached map into Lake Norman which is classified Class "WS-III" and "B" waters in the Catawba River Basin, and
3. Continue to discharge steam generator blowdown, condensate demineralizer backwash, waste treatment system backwash, demineralizer backwash, building drains, metal cleaning wastes, and turbine building sumps after treatment in the wastewater treatment system consisting of an initial holding pond, two settling ponds, a final holding pond, and effluent pH adjustment consisting of automated CO2 addition (outfall 002) at the location specified on the attached map into the Catawba River which is classified Class "WS-III" waters in the Catawba River Basin, and
4. Continue to discharge domestic waste from the sanitary wastewater treatment plant consisting of a multicellular aerated-facultative lagoon, a chlorine contact chamber, and a parshall flume (outfall 003) via the Wastewater Collection Basin (outfall 005) at the location specified on the attached map into the Catawba River which is classified Class "WS-III" waters in the Catawba River Basin, and
5. Continue to discharge low level liquid radwaste from the radwaste system consisting of filters, evaporators, and demineralizers (outfall 004) via outfall 001 at the location specified on the attached map into Lake Norman which is classified Class "WS-III" and Class "B" waters in the Catawba River Basin, and
6. Continue to discharge effluent from the sanitary waste treatment system, overflow from the standby nuclear service water pond, a laboratory sink, and floor drain, building drains, and condenser cooling water system unwatering from a large settling pond with a surface baffle (outfall 005) at the location specified on the attached map into the Catawba River which is classified Class "WS-III" waters in the Catawba River Basin.



Ebenezer Ch.

Trailer Park Marina

CATAWBA

Creek

Lucky

Marina

Marina

Campgrounds

Golf Course

RIV. R.

Powerplant

Substation

Cowans Ford Island

Cowans Ford

0015004

002
003
005

BM 798

BM 696

BM 726

Gen. Marthas Chapel

During the period beginning on the effective date of the permit and lasting until expiration, the Permittee is authorized to discharge from outfall(s) serial number(s)001 - Once through cooling water. Such discharges shall be limited and monitored by the Permittee as specified below:

<u>Effluent Characteristics</u>	<u>Lbs/day</u>		<u>Discharge Limitations</u>		<u>Measurement Frequency</u>	<u>Monitoring Requirements</u>	
	<u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Other Units (Specify)</u>	<u>Monthly Avg.</u>		<u>Daily Max.</u>	<u>Sample Type</u>
Intake Flow - m ³ /day (BGD)			Report		Report	Daily	Pump Logs
Temperature (October through June)			95 degrees F			Daily	Recorder
Temperature (July, August, September)			99 degrees F			Daily	Recorder
Total Residual Chlorine (mg/l)***					0.20 mg/l**	Weekly	Multiple Grabs**
Time of Chlorine Addition*****							
Hydrazine					0.06 mg/l	****	Calculations
Acute Toxicity*****						Quarterly	Composite

Simultaneous chlorination of units is permitted.

Discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act is prohibited unless specifically authorized elsewhere in this Permit.

* Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Flow shall be monitored at the intake; temperature, acute toxicity, and hydrazine shall be monitored at the discharge canal bridge; chlorine shall be monitored at the discharge structure corresponding to an individual unit.

** Multiple grabs shall consist of grab samples collected at the approximate beginning of TRC discharge and once every 15 minutes thereafter until the TRC is no longer detectable. "Daily maximum" as it applies to TRC means the instantaneous maximum at any time.

*** Monitoring of TRC is not required except during and subsequent to chlorination. Monitoring shall begin immediately upon start-up of chlorination and shall discontinue when TRC is no longer detected. Total residual chlorine may not be discharged from any single generating unit for more than two hours per day unless the discharger demonstrates to the State that discharge for more than two hours is required for macroinvertebrate control.

**** The hydrazine limit shall be calculated once on any day on which a discharge of hydrazine occurs from the Radwaste System and turbine building sumps (based on process knowledge). The calculations shall take into account flows from the Once Through Cooling Water and the Radwaste System or turbine building sumps. There shall be no discharge of floating solids or visible foam in other than trace amounts outside of an area five meters from the discharge point.

***** The permittee shall maintain a log on file at the plant of any chlorination events within each unit. The log shall contain a listing of each system that is chlorinated, the volume (flow in GPM) of the system, the total minutes for the chlorination event, and the beginning and ending time for each chlorination event. The log shall be kept on file for review by DEM representatives and copies must be submitted to the DEM upon request by any representative of this Division. Chlorination events in closed loop systems that result in a non detectable level of Total Residual Chlorine are allowed to be discharged without maintaining a log or conducting sampling at the effluent.

***** Acute Toxicity (Daphnid 24 hr.) No Significant Mortality at 90%; February, May, August and November; See

A. (2). EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Final

NPDES No. NC0024392

During the period beginning on the effective date and lasting until expiration the Permittee is authorized to discharge from outfall(s) serial number(s)002 - Conventional Wastewater Treatment Facility. Such discharges shall be limited and monitored by the Permittee as specified below:

Effluent Characteristics	Discharge Limitations		Monitoring Requirements				
	Lbs/day		Other Units (Specify) Monthly Avg. Daily Max.	Measurement Frequency	Sample Type	*Sample Location	
	Monthly Avg.	Daily Max.					
Flow				Daily	Instantaneous	E	
Oil & Grease			15.0 mg/l	20.0 mg/l	Monthly	Grab	E
NH3 as N					Monthly	Grab	E
Total Suspended Solids			30.0 mg/l	100.0 mg/l	Monthly	Grab	E
Total Residual Chlorine***					Monthly	Grab	E
pH					Monthly	Grab	E
Hydrazine				4.4 mg/l	Weekly	Grab	E
Total Phosphorus					Quarterly	Grab	E
Total Nitrogen					Quarterly	Grab	E
MBAS					Monthly	Grab	E
Sulfate					Monthly	Grab	E
Lead****						Grab	E
Acute Toxicity **					Quarterly	Grab	E
Pollutant Analysis*****					Annually		E

Sample locations: E - Effluent

* Effluent sampling shall be conducted at the discharge prior to mixing with any other waste stream.

** Acute Toxicity (Daphid 48 hr) LC50 80%; February, May, August and November; See Part III, Condition X.

*** Total residual chlorine shall be monitored once per batch within 24 hours of injection when chlorine is used for treatment purposes.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored as indicated above.

**** Lead shall be monitored once per month for a period of twelve months. Monitoring for lead may be discontinued after the twelfth month unless specified in other correspondence by the DEM.

There shall be no discharge of floating solids or visible foam in other than trace amounts outside an area five meters from the discharge point.

During the period beginning on the effective date of the permit and lasting until expiration, the Permittee is authorized to discharge from outfall(s) serial number(s) 003 Domestic Wastewater Treatment Facility. Such discharges shall be limited and monitored by the Permittee as specified below:

<u>Effluent Characteristics</u>	<u>Lbs/day</u>		<u>Other Units (Specify)</u>		<u>Measurement</u>	<u>Sample</u>	<u>*Sample</u>
	<u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Frequency</u>	<u>Type</u>	<u>Location</u>
Flow					Weekly	Instantaneous	E
BOD, 5Day, 20°C			30.0 mg/l	45.0 mg/l	2/month	Grab	E
TSS			90.0 mg/l	135.0 mg/l	2/month	Grab	E
Fecal Coliform (geometric mean)			200.0/100 ml	400.0/100 ml	2/month	Grab	E
Total Residual Chlorine					Weekly	Grab	E

* Sample locations: E - Effluent

The pH shall not be less than n/a standard units nor greater than n/a standard units and shall be monitored monthly at the effluent by grab sample.

A. (4). EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Final

NPDES No. NC0024392

During the period beginning on the effective date of the permit and lasting until expiration the Permittee is authorized to discharge from outfall(s) serial number(s) 004 Radwaste Processing System **. Such discharges shall be limited and monitored by the Permittee as specified below:

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>				
	<u>Lbs/day</u>		<u>Other Units (Specify)</u>		<u>Measurement</u>	<u>Sample</u>	<u>*Sample</u>
	<u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Frequency</u>	<u>Type</u>	<u>Location</u>
Flow					Weekly	Instantaneous	Effluent
TSS			30.0 mg/l	100.0 mg/l	Quarterly	Grab	Effluent
Oil and Grease			15.0 mg/l	20.0 mg/l	Quarterly	Grab	Effluent
Hydrazine					***	Grab	Effluent

* Effluent - Monitoring will be required after radwaste treatment but prior to any dilution with cooling water.

** In the event the turbine building sumps are discharged to Lake Norman and are not treated in the radwaste processing system, the above discharge limitations shall also apply to the turbine building sump discharge. Each discharge from the turbine building sumps shall be monitored for flow, TSS, oil and grease, and hydrazine, if applicable, as specified above by grab samples.

*** Each batch that contains hydrazine that is collected in the Radwaste System or turbine building sumps shall be monitored.

A. (5). EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Final

NPDES No. NC0024392

During the period beginning on the effective date of the permit and lasting until expiration the Permittee is authorized to discharge from outfall(s) serial number(s) Wastewater Collection Basin 005. Such discharges shall be limited and monitored by the Permittee as specified below:

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>				
	<u>Lbs/day</u>		<u>Other Units (Specify)</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>	<u>*Sample Location</u>
	<u>Monthly Avg.</u>	<u>Daily Max.</u>	<u>Monthly Avg.</u>	<u>Daily Max.</u>			
Flow					Daily	Instantaneous	E
BOD,5-day, 20 degrees C					Monthly	Grab	E
Total Suspended Solids					Monthly	Grab	E
Fecal Coliform (geometric mean)					Monthly	Grab	E
Oil and Grease			15.0 mg/l	20.0 mg/l	2/month	Grab	E
Total Copper					Monthly	Grab	E
Total Iron					Monthly	Grab	E
Chronic Toxicity **					Quarterly	Grab	E
Alkalinity					Monthly	Grab	E
Total Phosphorus					Monthly	Grab	E
TKN					Monthly	Grab	E
NO2 + NO3					Monthly	Grab	E
NH3 as N					Monthly	Grab	E

* Sample locations: E-Effluent, I-Influent

** Chronic Toxicity (Ceriodaphnia) P/F at 12%; January, April, July, October; See Part III, Condition R.

The pH shall be monitored monthly at the effluent by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

A. (6). EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Final

NPDES No. NC0024392

During the period beginning on the effective date of the permit and lasting until expiration, the Permittee is authorized to discharge from outfall(s) serial number(s) 006 - Chemical Metal Cleaning Wastes. Such discharges shall be limited and monitored by the Permittee as specified below:

<u>Effluent Characteristics</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>		
	<u>Lbs/day</u> <u>Monthly Avg. Daily Max.</u>	<u>Other Units (Specify)</u> <u>Monthly Avg. Daily Max.</u>	<u>Measurement</u> <u>Frequency</u>	<u>Sample</u> <u>Type</u>	<u>*Sample</u> <u>Location</u>
Flow			1/batch	Instantaneous	E
Total Copper **		1.0 mg/l	1/batch	Grab	E
Total Iron **		1.0 mg/l	1/batch	Grab	E

These limitations apply to all chemical metal cleaning wastes treated at the facility.

The treated wastewater from the chemical metal cleaning wastes operation is allowed to be discharged through any other permitted outfall. All limitations on outfall No. 006 must be met prior to intermixing with any other wastes streams except for pH when the waste is sent through the Conventional Wastewater Treatment Facility. The pH must be met at the outfall from the Conventional Wastewater Treatment Facility when discharged through the facility.

* Sample location: E - Effluent

** Monitoring and reporting for flow, pH, iron and copper are required only when chemical metal cleaning is performed.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per batch by grab samples at the effluent.

Part I

B. Schedule of Compliance

1. The permittee shall comply with Final Effluent Limitations specified for discharges in accordance with the following schedule:

Permittee shall comply with Final Effluent Limitations by the effective date of the permit.

2. Permittee shall at all times provide the operation and maintenance necessary to operate the existing facilities at optimum efficiency.
3. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next schedule requirements.

PART II
STANDARD CONDITIONS FOR NPDES PERMITS

SECTION A. GENERAL CONDITIONS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

2. Penalties for Violations of Permit Conditions

Any person who violates a permit condition is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates a permit condition is guilty of a misdemeanor punishable by a fine not to exceed \$15,000 per day of violation, or by imprisonment not to exceed six months or both.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from noncompliance with any effluent limitations specified in this permit, including accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Permit Modification

After notice and opportunity for a hearing pursuant to NCGS 143-215.1(b) (3) and NCGS 143-215.1(e) respectively, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- d. Information newly acquired by the Division indicating the discharge poses a threat to human health or welfare.

If the permittee believes that any past or planned activity would be cause for modification or revocation and reissuance, the permittee must report such information to the Permit Issuing Authority. The submittal of a new application

may be required of the permittee. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliances, does not stay any permit condition.

5. Toxic Pollutants

Notwithstanding Part II, A-4 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge, if such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard prohibition and the permittee so notified.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

6. Civil and Criminal Liability

Except as provided in permit conditions on "Bypassing" (Part II, B-3) and "Power Failures" (Part II, B-6), nothing in this permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties for noncompliance pursuant to NCGS 143-215.3, 143-215.6 or Section 309 of the Federal Act, 33 USC 1319. Furthermore, the permittee is responsible for consequential damages, such as fish kills, even though the responsibility for effective compliance may be temporarily suspended.

7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under NCGS 143-215.75 et seq. or Section 311 of the Federal Act, 33 USC 1321. Furthermore, the permittee is responsible for consequential damages, such as fish kills, even though the responsibility for effective compliance may be temporarily suspended.

8. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

9. Onshore of Offshore Construction

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

10. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

11. Duty to Provide Information

The permittee shall furnish to the Permit Issuing Authority, within a reasonable time, any information which the Permit Issuing Authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Permit Issuing Authority upon request, copies of records required to be kept by this permit.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

2. Need to Halt or Reduce not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the condition of this permit.

3. Bypassing

Any diversion from or bypass of facilities is prohibited, except (i) where unavoidable to prevent loss of life or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. All permittees who have such sewer bypasses or overflows of this discharge shall submit, not later than six months from the date of issuance of this permit, detailed data or engineering estimates which identify:

- a. The location of each sewer system bypass or overflow;
- b. The frequency, duration and quantity of flow from each sewer system bypass or overflow.

This requirement is waived where infiltration/inflow analyses are scheduled to be performed as part of an Environmental Protection Agency facilities planning project.

The permittee shall report by telephone to either the central office or appropriate regional office of the Division as soon as possible, but in no case more than 24 hours or on the next working day following the occurrence or first knowledge of the occurrence of any diversion from or bypass of facilities.

4. Upsets

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit limitation if the requirements of 40 CFR S 122.41(n)(3) are met.

5. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in accordance with NCGS 143-215.1 and in a manner such as to prevent any pollutant from such materials from entering waters of the State or navigable waters of the United States.

6. Power Failures

The permittee is responsible for maintaining adequate safeguards as required by DEM Regulation, Title 15, North Carolina Administrative Code, Subchapter 2H, .0124 Reliability, to prevent the discharge of untreated or inadequately treated wastes during electrical power failures either by means of alternate power sources, standby generators or retention of inadequately treated effluent.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Samples collected and measurements taken, as required herein, shall be characteristic of the volume and nature of the permitted discharge. Samples collected at a frequency less than daily shall be taken on a day and time that is characteristic of the discharge over the entire period which the sample represents. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and the approval of the Permit Issuing Authority.

2. Reporting

Monitoring results obtained during the previous month(s) shall be summarized for each month and reported on a monthly Discharge Monitoring Report (DMR) Form (DEM No. MR 1, 1.1, 2, 3) or alternative forms approved by the Director, DEM, postmarked no later than the 30th day following the completed reporting period.

The first DMR is due on the last day of the month following the issuance of the permit or in the case of a new facility, on the last day of the month following the commencement of discharge. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the following address:

Division of Environmental Management
Water Quality Section
ATTENTION: Central Files
Post Office Box 27687
Raleigh, North Carolina 27611

3. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than + 10% from the true discharge rates throughout the range of expected discharge volumes. Once-through condenser cooling water flow which is monitored by pump logs, or pump hour meters as specified in Part I of this permit and based on the manufacturer's pump curves shall not be subject to this requirement.

4. Test Procedures

Test procedures for the analysis of pollutants shall conform to the EMC regulations published pursuant to NCGS 143-215.63 et seq, the Water and Air Quality Reporting Acts, and to regulations published pursuant to Section 304(g), 33 USC 1314, of the Federal Water Pollution Control Act, as Amended, and Regulation 40 CFR 136.

To meet the intent of the monitoring required by this permit, all test procedures must produce minimum detection and reporting levels that are below the permit discharge requirements and all data generated must be reported down to the minimum detection or lower reporting level of the procedure. If no approved methods are determined capable of achieving minimum detection and reporting levels below permit discharge requirements, then the most sensitive (method with the lowest possible detection and reporting level) approved method must be used.

5. Penalties for Tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

6. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years by the permittee. This period of retention shall be extended during the course of any unresolved litigation or if requested by the Division of Environmental Management or the Regional Administrator of the Environmental Protection Agency.

7. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling;
- b. The dates the analyses were performed;
- c. The person(s) who performed the analyses; and
- d. The results of such analyses.

8. Right of Entry

The permittee shall allow the Director of the Division of Environmental Management, the Regional Administrator, and/or their authorized representatives, upon the presentations of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

SECTION D. REPORTING REQUIREMENTS

1. Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new NPDES application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the DEM of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

2. Anticipated Noncompliance

The permittee shall give notice to the Permit Issuing Authority of any planned change in the permitted facility or activity which may result in noncompliance with permit requirements. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, shall be scheduled during noncritical water quality periods and carried out in a manner approved by the Permit Issuing Authority.

3. Transfer of Ownership or Control

This permit is not transferable. In the event of any change in name, control or ownership of facilities from which the authorized discharge emanates or is contemplated, the permittee shall notify the prospective owner or controller by letter of the existence of this permit and of the need to obtain a permit in the name of the prospective owner. A copy of the letter shall be forwarded to the Division of Environmental Management.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values is required in the DMR. Such increased frequency shall also be indicated. The DEM may require more frequent monitoring or the monitoring of other pollutants not required in this permit by written notification.

5. Averaging of Measurements

Calculations for limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Permit Issuing Authority in the permit.

6. Noncompliance Notification

The permittee shall report by telephone to either the central office or the appropriate regional office of the Division as soon as possible, but in no case more than 24 hours or on the next working day following the occurrence or first knowledge of the occurrence of any of the following:

- a. Any occurrence at the water pollution control facility which results in the discharge of significant amounts of wastes which are abnormal in quantity or characteristic, such as the dumping of the contents of a sludge digester; the known passage of a slug of hazardous substance through the facility; or any other unusual circumstances.
- b. Any process unit failure, due to known or unknown reasons, that render the facility incapable of adequate wastewater treatment such as mechanical or electrical failures of pumps, aerators, compressors, etc.
- c. Any failure of a pumping station, sewer line, or treatment facility resulting in a by-pass directly to receiving waters without treatment of all or any portion of the influent to such station or facility.
- d. Any time that self-monitoring information indicates that the facility has gone out of compliance with its NPDES permit limitations.

Persons reporting such occurrences by telephone shall also file a written report in letter form within 15 days following first knowledge of the occurrence.

7. Changes in Discharges of Toxic Substances:

The permittee shall notify the Permit Issuing Authority as soon as it knows or has reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic substance(s) (listed at 40 CFR S 122, Appendix D, Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels".
 - (1) One hundred micrograms per liter (100 ug/l);
 - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony; or
 - (3) Five (5) times the maximum concentration value reported for that pollutant(s) in the permit application.

- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant (listed at 40 CFR S 122, Appendix D. Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
- (1) Five hundred micrograms per liter (500 ug/l);
 - (2) One milligram per liter (1 mg/l) for antimony; or
 - (3) Ten (10) times the maximum concentration value reported for that pollutant(s) in the permit application.

8. Expiration of Permit

Permittee is not authorized to discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by the agency authorized to issue permits no later than 180 days prior to the expiration date. Any discharge without a permit after the expiration will subject the permittee to enforcement procedures as provided in NCGS 143-215.6 and 33 USC 1251 et seq.

9. Signatory Requirements

All applications, reports, or information submitted to the Permit Issuing Authority shall be signed and certified.

a. All permit applications shall be signed as follows:

- (1) For a corporation: by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means:
(a) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or (b) the manager of one or more manufacturing production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding 25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
- (3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

- b. All reports required by the permit and other information requested by the Permit Issuing Authority shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- (1) The authorization is made in writing by a person described above;
 - (2) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, a position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - (3) The written authorization is submitted to the Permit Issuing Authority.
- c. Certification. Any person signing a document under paragraphs a. or b. of this section shall making the following certification:

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and believe, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

10. Availability of Reports

Except for data determined to be confidential under NCGS 143-215.3(a) (2) or Section 308 of the Federal Act, 33 USC 1318, all reports prepared in accordance with the terms shall be available for public inspection at the offices of the Division of Environmental Management. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NCGS 143-215.1(b) (2) or in Section 309 of the Federal Act.

11. Penalties for Falsification of Reports

The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

SECTION E. DEFINITION

1. Permit Issuing Authority

The Director of the Division of Environmental Management.

2. DEM or Division

Means the Division of Environmental Management, Department of Natural Resources and Community Development. 3. EMC:

Used herein means the North Carolina Environmental Management Commission.

3. EMC

Used herein means the North Carolina Environmental Management Commission.

4. Act or "the Act"

The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 USC 1251, et. seq.

5. Mass/Day Measurements

- a. The "monthly average discharge" is defined as the total mass of all daily discharges sampled and/or measured during a calendar month on which daily discharges are sample and measured, divided by the number of daily discharges samples and/or measured during such month. It is therefore, an arithmetic mean found by adding the weights of the pollutant found each day of the month and then dividing this sum by the number of days the tests were reported. The limitation is identified as "Monthly Average" in Part I of the permit.
- b. The "weekly average discharge" is defined as the total mass of all daily discharges sampled and/or measured during the calendar week (Sunday-Saturday) on which daily discharges are sampled and measured, divided by the number of daily discharges samples and/o: measured during such week. It is, therefore, an arithmetic mean found by adding the weights of pollutants found each day of the week and then dividing this sum by the number of days the tests were reported. This limitation is identified as "Weekly Average" in Part I of the permit.
- c. The "maximum daily discharge" is the total mass (weight) of a pollutant discharged during a calendar day. If only one sample is taken during any calendar day the weight of pollutant calculated from it is the "maximum daily discharge." This limitation is identified as "Daily Maximum," in Part I of the permit.

- d. The "average annual discharge" is defined as the total mass of all daily discharges sample and/or measured during the calendar year on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such year. It is, therefore, an arithmetic mean found by adding the weights of pollutants found each day of the year and then dividing this sum by the number of days the tests were reported. This limitation is defined as "Annual Average" in Part I of the permit.

6. Concentration Measurement

- a. The "average monthly concentration," other than for fecal coliform bacteria, is the sum of the concentrations of all daily discharges samples and/or measured during a calendar month on which daily discharges are sampled and measured, divided by the number of daily discharges sampled and/or measured during such month (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The average monthly count for fecal coliform bacteria is the geometric mean of the counts for samples collected during a calendar month. This limitation is identified as "Monthly Average" under "Other Limits" in Part I of the permit.
- b. The "average weekly concentration," other than for fecal coliform bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a calendar week (Sunday/Saturday) on which daily discharges are sampled and measured divided by the number of daily discharges sampled and/or measured during such week (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The average weekly count for fecal coliform bacteria is the geometric mean of the counts for samples collected during a calendar week. This limitation is identified as "Weekly Average" under "Other Limits" in Part I of the permit.
- c. The "maximum daily concentration" is the concentration of a pollutant discharge during a calendar day. If only one sample is taken during any calendar day the concentration of pollutant calculated from it is the "Maximum Daily Concentration". It is identified as "Daily Maximum" under "Other Limits" in Part I of the permit.

- d. The "average annual concentration," other than for fecal coliform bacteria, is the sum of the concentrations of all daily discharges sampled and/or measured during a calendar year on which daily discharges are sampled and measured divided by the number of daily discharges sampled and/or measured during such year (arithmetic mean of the daily concentration values). The daily concentration value is equal to the concentration of a composite sample or in the case of grab samples is the arithmetic mean (weighted by flow value) of all the samples collected during that calendar day. The average yearly count for fecal coliform bacteria is the geometric mean of the counts for samples collected during a calendar year. This limitation is identified as "Annual Average" under "Other Limits" in Part I of the permit.
- e. The "daily minimum concentration" (for dissolved oxygen only) is the minimum allowable amount of dissolved oxygen required to be available in the effluent prior to discharge. It is identified as "Daily Minimum" under "Other Limits" in Part III of the permit.

7. Other Measurements

- a. Flow, (MGD): The flow limit expressed in this permit is the 24 hours average flow, averaged monthly. It is determined as the arithmetic mean of the total daily flows recorded during the calendar month.
- b. An "instantaneous flow measurement" is a measure of flow taken at the time of sampling, when both the sample and flow will be representative of the total discharge.

8. Types of Samples

- a. Composite Sample: These samples consist of grab samples collected at equal intervals and combined proportional to flow, a sample continuously collected proportionally to flow, or equal volumes taken at varying time intervals. If a composite sample is obtained from grab samples, the following requirements apply. The intervals between influent grab samples shall be no greater than hourly. Intervals between effluent grab samples shall be no greater than hourly except where the detention time of the wastewater in the facility is greater than 24 hours, in which case, the interval between grab samples shall be no greater in number of hours than the detention time in number of days; provided, however, in no case may the time between effluent grab samples be greater than six hours nor the number of grab samples less than four during any discharge period of 24 hours or less.
- b. Grab Sample: Grab samples are individual samples collected over a period of time not exceeding 15 minutes; the grab sample can be taken manually.

9. Calculation of Means

- a. **Arithmetic Mean:** The arithmetic mean of any set of values is the summation of the individual values divided by the number of individual values.
- b. **Geometric Mean:** The geometric mean of any set of values is the Nth root of the product of the individual values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).
- c. **Weighted by Flow Value:** Weighted by flow value means the summation of each concentration times its respective flow divided by the summation of the respective flows.

10. Calendar Day

A calendar day is defined as the period from midnight of one day until midnight of the next day. However, for purposes of this permit, any consecutive 24-hour period that reasonably represents the calendar day may be used for sampling.

11. Hazardous Substance

A hazardous substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act.

12. Toxic Pollutant

A toxic pollutant is any pollutant listed as toxic under Section 307(a)(1) of the Clean Water Act.

PART III
OTHER REQUIREMENTS

A. Previous Permits

All previous State water quality permits issued to this facility, whether for construction or operation or discharge, are hereby revoked by issuance of this permit. The conditions, requirements, terms, and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

B. Construction

No construction of wastewater treatment facilities or additions thereto shall be begun until Final Plans and Specifications have been submitted to the Division of Environmental Management and written approval and Authorization to Construct has been issued.

C. Certified Operator

Pursuant to Chapter 90A-44 of North Carolina General Statutes, the permittee shall employ a certified wastewater treatment plant operator in responsible charge (ORC) of the wastewater treatment facilities. Such operator must hold a certification of the grade equivalent to or greater than the classification assigned to the wastewater treatment facilities. The permittee shall notify the Division's Operator Training and Certification Unit within five days of any change in the ORC status.

D. Groundwater Monitoring

The permittee shall, upon written notice from the Director of the Division of Environmental Management, conduct groundwater monitoring as may be required to determine the compliance of this NPDES permitted facility with the current groundwater standards.

E. Limitations Reopener

This permit shall be modified or alternatively, revoked and reissued, to comply with any applicable effluent guideline or water quality standard issued or approved under Sections 302(b) (2) (c), and (d), 304(b) (2), and 307(a) (2) of the Clean Water Act, if the effluent guideline or water quality standard so issued or approved:

1. contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements in the Act then applicable.

F. Toxicity Reopener

This permit shall be modified, or revoked and reissued to incorporate toxicity limitations and monitoring requirements in the event toxicity testing or other studies conducted on the effluent or receiving stream indicate that detrimental effects may be expected in the receiving stream as a result of this discharge.

G. In the event that waste streams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property attributable to each controlled waste source shall not exceed the specified limitation for that waste source.

H. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

I. The permittee shall not use any biocides except those approved in conjunction with the permit application. The permittee shall notify the Director in writing not later than ninety (90) days prior to instituting use of any additional biocide used in cooling systems which may be toxic to aquatic life other than those previously reported to the Division of Environmental Management. Such notification shall include completion of Biocide Worksheet Form 101 and a map locating the discharge point and receiving stream.

J. Continued intake screen backwash discharge is permitted without limitations or monitoring requirements. However, the discharge of oil and grease is prohibited from this discharge.

K. Nothing contained in this permit shall be construed as a waiver by the permittee of any right to a hearing it may have pursuant to State or Federal Laws or regulations.

L. The term "low volume waste sources" means the waste is taken collectively as if from one source except those for which specific limitations are otherwise established in this part. Low volume wastes sources include but are not limited to: wastewaters from wet scrubber air pollution control systems, ion exchange water treatment system, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, and recirculating house service water systems. Sanitary and air conditioning wastes are not included.

M. The term "chemical metal cleaning waste" means any wastewater resulting from the cleaning of any metal process equipment with chemical compounds including, but not limited to, boiler tube cleaning.

N. It has been determined from information submitted that the plans and procedures in place at McGuire Nuclear Station are equivalent to that of a BMP.

O. Yard drains may be discharged without limitations or monitoring requirements.

P. The Division of Environmental Management has approved the submitted 316(a) demonstration and has concluded that the existing thermal limitations are sufficient to protect the aquatic environment of Lake Norman.

Q. Mixing Zone

A mixing zone has been defined containing an area of no more than 3500 acres and lying upstream of the dam and south of a line originating on the west bank of NC Coordinates E-1, 416,900 and N-633,600 and extending south 70 -00 east intersecting the point of land on the eastern shore. Water quality stream standards for temperature shall be met outside the mixing zone.

R. Chronic Toxicity Testing Requirement

The effluent discharge shall at no time exhibit chronic toxicity in any two consecutive toxicity tests, using test procedures outlined in:

- 1). The North Carolina Ceriodaphnia chronic effluent bioassay procedure (North Carolina Chronic Bioassay Procedure - Revised *April 1989) or subsequent version.

The effluent concentration at which there may be no observable inhibition of reproduction or significant mortality is 12% (defined as treatment two in the North Carolina procedure document). The permit holder shall perform quarterly monitoring using this procedure to establish compliance with the permit condition. The first test will be performed after thirty days from issuance of this permit during the months of January, April, July, and October. Effluent sampling for this testing shall be performed at the NPDES permitted final effluent discharge below all treatment processes.

All toxicity testing results required as part of this permit condition will be entered on the Effluent Discharge Monitoring Form (MR-1) for the month in which it was performed, using the parameter code TGP3B. Additionally, DEM Form AT-1 (original) is to be sent to the following address:

Attention: Technical Services Branch
North Carolina Division of
Environmental Management
P.O. Box 27687
Raleigh, N.C. 27611

Test data shall be complete and accurate and include all supporting chemical/physical measurements performed in association with the toxicity tests, as well as all dose/response data. Total residual chlorine of the effluent toxicity sample must be measured and reported if chlorine is employed for disinfection of the waste stream.

Should any single quarterly monitoring indicate a failure to meet specified limits, then monthly monitoring will begin immediately until such time that a single test is passed. Upon passing, this monthly test requirement will revert to quarterly in the months specified above.

Should any test data from this monitoring requirement or tests performed by the North Carolina Division of Environmental Management indicate potential impacts to the receiving stream, this permit may be reopened and modified to include alternate monitoring requirements or limits.

"Failure to achieve test conditions as specified in the cited document, such as minimum control organism survival and appropriate environmental controls, shall constitute an invalid test and will require immediate retesting (within 30 days of initial monitoring event). Failure to submit suitable test results will constitute non-compliance with monitoring requirements, but will not subject the permittee to civil penalty if the permittee has demonstrated a diligent attempt to conduct a suitable retest and has engaged the services of a laboratory with valid certification under North Carolina's laboratory certification program.

- S. Releases of radioactive materials shall be monitored and conducted in accordance with all conditions and limitations required by NRC and as specified in the Final Safety Analysis Report, Technical Specifications and Environmental Statement for the McGuire Nuclear Station.
- T. The Lake Norman aquatic environment maintenance monitoring program approved by the Division of Environmental Management shall be continued. The monitoring results shall be submitted annually.
- U. Discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to lakes, rivers, streams or other waters of the United States is prohibited unless specifically authorized elsewhere in this permit. This requirement is not applicable to products used for lawn and agricultural purposes. Discharge of chlorine from the use of chlorine gas, sodium hypochlorite, or other similar chlorination compounds for disinfection in plant potable and service water systems and in sewage treatment is authorized.
- V. The permittee is hereby authorized to discharge as follows:
 - a. The Cowans Ford Dam Underdrain discharge to the Catawba River which includes bearing lubrication and gland seal water, and possibly silt from the cyclone separators, and
 - b. Fire protection water (approved biocide) to Lake Norman (Catawba River).
- W. Acute Toxicity Testing Requirement

The permittee shall conduct acute toxicity tests on a quarterly basis using protocols defined in the North Carolina Procedure Document entitled "Pass/Fail Methodology For Determining Acute Toxicity In A Single Effluent Concentration". The monitoring shall be performed as a Daphnia Pulex 24 hour static test, using effluent collected as a 24 hour composite. The effluent concentration at which there may be at no time significant acute mortality in any two consecutive toxicity tests is 90% (defined as treatment two in the North Carolina procedure document). Effluent samples for self-monitoring purposes must be obtained during representative effluent discharge below all waste treatment. The first test will be performed after thirty days from issuance of this permit during the months of February, May, August, and November.

All toxicity testing results required as part of this permit condition will be entered on the Effluent Discharge Monitoring Form (MR-1) for the month in which it was performed, using the parameter code TGE3D. Additionally, DEM Form AT-2 (original) is to be sent to the following address:

Environmental Sciences Branch
North Carolina Division of Environmental Management
PO Box 27687
Raleigh, North Carolina 27611-7687

Test data shall be complete and accurate and include all supporting chemical/physical measurements performed in association with the toxicity tests, as well as all dose/response data. Total residual chlorine of the effluent toxicity sample must be measured and reported if chlorine is employed for disinfection of the waste stream.

Should any single quarterly monitoring indicate a failure to meet specified limits, then monthly monitoring will begin immediately until such time that a single test is passed. Upon passing, this monthly test requirement will revert to quarterly in the months specified above.

Should any test data from either these monitoring requirement or tests performed by the North Carolina Division of Environmental Management indicate potential impacts to the receiving stream, this permit may be re-opened and modified to include alternate monitoring requirements or limits.

"Failure to achieve test conditions as specified in the cited document, such as minimum control organism survival and appropriate environmental controls, shall constitute an invalid test and will require immediate retesting (within 30 days of initial monitoring event). Failure to submit suitable test results will constitute non-compliance with monitoring requirements, but will not subject the permittee to civil penalty if the permittee has demonstrated a diligent attempt to conduct a suitable retest and has engaged the services of a laboratory with valid certification under North Carolina's laboratory certification program.

X. Acute Toxicity Testing Requirement

The permittee shall conduct acute toxicity tests on a quarterly basis using protocols defined as definitive in EPA Document 600/4-85/013 entitled "The Acute Toxicity of Effluents to Freshwater and Marine Organisms". The monitoring shall be performed as a Daphnia pulex or Ceriodaphnia 48 hour static test, using effluent collected as a grab sample. The LC50 of this effluent using the previously stated methodology may at no time in any two consecutive toxicity tests be less than 80%. Effluent samples for self-monitoring purposes must be obtained during representative effluent discharge below all waste treatment. The first test will be performed after thirty days from issuance of this permit during the months of February, May, August and November.

The parameter code for this test if using Daphnia pulex is TAA3D. The parameter code for this test if using Ceriodaphnia is TAA3B. All toxicity testing results required as part of this permit condition will be entered on the Effluent Discharge Monitoring Form (MR-1) for the month in which it was performed, using the appropriate parameter code. Additionally, DEM Form AT-1 (original) is to be sent to the following address:

Technical Services Branch
North Carolina Division of Environmental Management
PO Box 27687
Raleigh, North Carolina 27611-7687

Test data shall be complete and accurate and include all supporting chemical/physical measurements performed in association with the toxicity tests, as well as all dose/response data. Total residual chlorine of the effluent toxicity sample must be measured and reported if chlorine is employed for disinfection of the waste stream.

Should any single quarterly monitoring indicate a failure to meet specified limits, then monthly monitoring will begin immediately until such time that a single test is passed. Upon passing, this monthly test requirement will revert to quarterly in the months specified above.

Should any test data from either this monitoring requirement or tests performed by the North Carolina Division of Environmental Management indicate potential impacts to the receiving stream, this permit may be reopened and modified to include alternate monitoring requirements or limits.

"Failure to achieve test conditions as specified in the cited document, such as minimum control organism survival and appropriate environmental controls, shall constitute an invalid test and will require immediate retesting (within 30 days of initial monitoring event). Failure to submit suitable test results will constitute non-compliance with monitoring requirements, but will not subject the permittee to civil penalty if the permittee has demonstrated a diligent attempt to conduct a suitable retest and has engaged the services of a laboratory with valid certification under North Carolina's laboratory certification program.

Y. Duke Power must perform the following as part of the 316(a) variance:

1. Duke monitoring shall include a sampling program whose intent is to determine the abundance and distribution over the critical summer period, both in time and space, of fish species in the mixing zone. The use of hydroacoustical sampling equipment is suitable for these purposes and is to be performed in conjunction with vertical temperature and dissolved oxygen profiles. In addition, these data will be analyzed, where appropriate (using other lake specific information collected either by Duke Power Company or other agencies) with regard to striped bass usage of the mixing zone.
2. Duke shall remodel and assess the impact of 100% load factor during the months of June-August and 90% for the remainder of the year.
3. Duke shall address maximum discharge temperatures from McGuire which will occur each month when the units are operating at maximum output. This discussion shall entail the possible effect on swimmers/fallen skiers in the thermal plume area during the summer months.

Z. The permittee shall conduct a test for priority pollutants annually at the effluent from the treatment plant. The discharge shall be evaluated as follows:

- 1) A pollutant analysis of the effluent must be completed annually using EPA approved methods for the following analytic fractions: (a) purgeables (i.e., volatile organic compounds); (b) acid extractables; (c) base/neutral extractables; (d) organochlorine pesticides and PCB's (e) herbicides; and (f) metals and other inorganics. The Annual Pollutant Analysis (APA) Monitoring Requirement Reporting Form A, to be provided to all discharges affected by this monitoring requirement, describes the sampling and analysis requirements and lists chemicals to be included in the pollutant analysis. This monitoring requirement is to be referred to as the "Annual Pollutant Analysis" (APA).

PART IV
ANNUAL ADMINISTERING AND COMPLIANCE FEE REQUIREMENTS

- A. The permittee must pay the annual administering and compliance fee within 30 (thirty) days after being billed by the Division. Failure to pay the fee in a timely manner in accordance with 15 NCAC 2H .0105(b)(4) may cause this Division to initiate action to revoke the permit.



State of North Carolina
Department of Natural Resources and Community Development
Division of Environmental Management
512 North Salisbury Street • Raleigh, North Carolina 27611

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

February 23, 1989

R. Paul Wilms
Director

MEMORANDUM

To: NPDES Permit Holders

From: Steve Tedder *ST*
Water Quality Section Chief

SUBJECT: NPDES Effluent Limitations

The Division of Environmental Management has recently received a number of questions about limitations in NPDES permits. Many permit holders do not understand how or why their permit limitations can change. For your information, I have enclosed a brief explanation which should help explain some of the factors affecting permit limitations. Also included are some reasons why these limitations may change.

If you have any questions on this matter, please do not hesitate to contact Mr. Arthur Mouberry of the Permits staff or Mr. Trevor Clements of the Modeling staff at 919/733-5083.

FACTORS AFFECTING WASTE LOAD ALLOCATIONS

Over the past decade North Carolina has experienced rapid population growth and industrial development. With this growth has come more jobs and better housing opportunities. This prosperity has also brought an increasing demand on our State water's as locations for wastewater discharges. These waters are a resource with only limited capacity to accept wastewater. Additional discharges, in many cases, result in a requirement for upgraded treatment by the existing dischargers. This is an unfortunate side effect of our growth, but it is one that you must consider now, and throughout the life of your project.

Beginning on page three of your NPDES permit are the effluent limitations that you are required to meet. These limitations were derived to protect the water quality in your receiving stream under existing conditions. The effluent limits contained in your permit are usually effective throughout the term of the permit. However, these limits can change during the term of the permit (usually five years) if: (1) a water quality concern is documented in the receiving stream or, (2) the federal guidelines change for facilities with limits based on effluent guidelines.

Effluent limits in the permit are also subject to change at the time of reissuance of the NPDES Permit. This change can result from several factors, for example: (1) more discharges in your immediate area, (2) an increase in total permitted flow to your stream, (3) a change in the condition of your stream, (4) an increase in our understanding of your receiving stream. If your limits do change, you will be responsible for taking the action necessary to upgrade your treatment facility to meet your new effluent limits. As the Division becomes aware of a change in the limitation of existing dischargers, we will provide you with as much notice as is possible so that you can begin making plans to meet those new limitations.



State of North Carolina
Department of Environment, Health and Natural Resources
Division of Environmental Management
512 North Salisbury Street • Raleigh, North Carolina 27611

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

George T. Everett, Ph. D.
Director

February 6, 1990

Mr. Tom Griffin
Duke Power Company
PO Box 33189
Charlotte, NC 28242

Subject: NPDES Permit Modification
NPDES Permit No. NC0024392
Duke Power-McGuire
Mecklenburg County

Dear Mr. Griffin:

On January 19, 1990 the Division of Environmental Management issued NPDES Permit No. NC0024392 to Duke Power Company. A review of the permit file has indicated that a page was inadvertently omitted from the permit. Attached is the missing page which should be inserted into the subject permit.

All other terms and conditions contained in the original permit remain unchanged and in full effect. This permit modification is issued pursuant to the requirements of North Carolina General Statutes 143-215.1 and the Memorandum of Agreement between North Carolina and the U.S. Environmental Protection Agency. This permit modification becomes effective immediately.

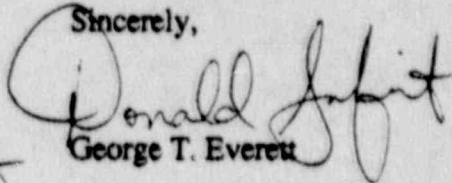
If any parts, measurement frequencies, or sampling requirements contained in this permit modification are unacceptable to you, you have the right to an adjudicatory hearing upon written request within thirty (30) days following receipt of this letter. This request must be in the form of a written petition, conforming to Chapter 150B of the North Carolina General Statutes, and filed with the Office of Administrative Hearings, Post Office Drawer 11666, Raleigh, North Carolina 27604. Unless such demand is made, this decision shall be final and binding.

Pollution Prevention Pays

P.O. Box 27687, Raleigh, North Carolina 27611-7687 Telephone 919-733-7015
An Equal Opportunity Affirmative Action Employer

If you have any questions concerning this permit modification, please contact Mr. Dale Overcash at (919) 733-5083.

Sincerely,


George T. Everett

cc: Mr. Jim Patrick, EPA
Mooreville Regional Office

2)

Other significant levels of synthetic organic chemicals must be identified and approximately quantified. For the purpose of implementing this requirement, the largest 10 GC/MS peaks in each organic chemical analytic fraction (or fewer than 10, if less than 10 unidentified peaks) occur for chemicals other than those specified on the APA Monitoring Requirement Reporting Form A should be identified and approximately quantified as stated in the APA Reporting Form A instructions. This part (item 2) of the APA monitoring requirement is to be referred to as the "10 significant peaks rule".