

Duke Power Company
Electric System Support Department
13339 Hagers Ferry Road
Huntersville, NC 28078-7929



DUKE POWER

May 10, 1995

Mr. Timothy M. Eleazer
Industrial and Agricultural Wastewater Division
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, SC 29201

Subject: Catawba Nuclear Station -NPDES Permit No. SC0004278
Approval for Use of Chemicals
File: CN-702.13

Dear Mr. Eleazer:

Catawba Nuclear Station received approval to use the following additional treatment chemicals in a letter from DHEC dated March 15, 1995 (copy attached):

1. Carbohydrazide
2. NALCO DYNACOOOL 1389
3. dibromo-3-nitrilopropionamide or DBNPA
4. 3-MPA or 3-methoxypropylamine

Upon review of this approval letter and the actual application of these compounds, we would like to request that the approval letter be modified and reissued. The reasons for this request are provided below:

- The approval to use NALCO DYNACOOOL 1389, DBNPA and 3-MPA provided an actual effluent limitation value which was based upon the anticipated discharge value and not the aquatic toxicity of the compounds as provided in the MSDS sheets. The usage of these compounds is well below the aquatic toxicity values. The anticipated discharge values were provided to show that the compounds would not be discharged in toxic concentrations.
- There does not exist a good analytical method to analyze for these compounds in low concentrations in a wastewater matrix. We can analyze for the compounds and come up

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COOL

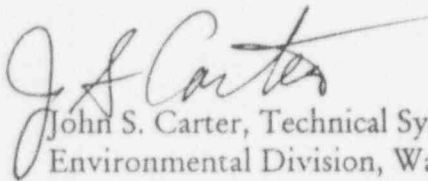
with an actual number in a clearwater sample and therefore know the concentrations of the chemicals which are being added to the systems. The anticipated discharge values shown in the request were calculated values. Therefore, we will not be able to demonstrate by analytical means what the actual concentration of the product is at the discharge point.

For these reasons we would like to request that the letter be revised to provide a simple approval to use the compounds as described in the permit application and that a numerical effluent value not be assigned for each compound. We will discharge at or below NOEC concentrations for *C. dubia*. Our existing toxicity monitoring program will verify that these compounds are not being discharged in toxic concentrations. Additional toxicity testing shall be performed if the NOEC limit is approached.

Upon review of the usage of the 3-MPA, we have reworked the typical discharge concentration range to between 1 and 5 mg/l rather than 0.1 mg/l as shown in the application submitted on February 15, 1995. A revised copy of the proposed usage for this compound is attached for your review. The discharge concentration range of 1 to 5 mg/l is below the NOEC value for this compound.

Should you have any questions concerning this letter please give John Estridge a call at (704) 875-5965.

Sincerely,



John S. Carter, Technical System Manager
Environmental Division, Water Protection

jte/444

cc: Mr. Al Williams - Catawba EQC
NRC Document Distribution List

bc: M.A. Lascara - MG03A5
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**CATAWBA NUCLEAR STATION
PROPOSED USAGE**

May 10, 1995

NPDES PERMIT SC0004278

Part III Item 9 Requirements

1. NAME AND GENERAL COMPOSITION OF THE CHEMICAL
3-MPA or 3-methoxypropylamine
Typical Manufacture Product Name: NALCO 94UF193

This product will be used for pH control.

The use of MPA will help to reduce the amount of low level radioactive waste generated at the site. This product is considered an environmentally friendly substitute for ethanolamine due to the reduction in resin waste.

2. QUANTITIES TO BE USED

3-MPA will be used in the secondary system to replace ethanolamine as the secondary pH control additive. This product will be used in the range of 1-10 mg/l.

3. FREQUENCY OF USE
continuously

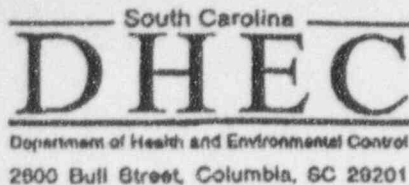
4. TYPICAL DISCHARGE CONCENTRATION

1-10 MG/L is the concentration to be used in the secondary chemistry system. The secondary system is discharged to the conventional wastewater treatment ponds and discharged to Lake Wylie via outfall 002. The typical discharge concentration out outfall 002 will range between 1 and 5 mg/l based on plant operating conditions..

5. EPA REGISTRATION NUMBER
MSDS sheets attached.

6. AQUATIC TOXICITY INFORMATION

The 7-day Ceriodaphnia no observed effect concentration for reproduction is 9.5 mg/l.
The 7-day Ceriodaphnia no observed effect concentration for survival is 75 mg/l.



Commissioner: Douglas E. Bryant

Board: Richard E. Jabbour, DDS, Chairman
Robert J. Stripling, Jr., Vice Chairman
Sandra J. Molander, Secretary

Promoting Health, Protecting the Environment

John H. Burries
William M. Hull, Jr., MD
Roger Leake, Jr.
Burnet R. Maybank, III

March 15, 1995

Mr. John S. Carter, Technical System Manager
Environmental Division
Duke Power Company
13339 Hagers Ferry Road
Huntersville, N.C. 28078-7929

Re: Request Approval for Use of Chemicals
Duke Power Co./Catawba Nuclear Station
York County

Dear Mr. Carter:

Our Office has received your February 15, 1995 letter requesting approval to use additional treatment chemicals at the Duke Power Company/Catawba Nuclear Station in York County. Based on a review of the information provided, we approve your request to use the following treatment chemicals as indicated below:

- 1) Carbohydrazide (hydrazine substitute) shall be used as a corrosion inhibitor in the nuclear service water heat exchangers during wet layup and in the station's secondary chemistry system. The discharge of this parameter from Outfalls 001 and 002 shall be less than the 8.1 mg/l no observed effect concentration (NOEC) per occurrence.
- 2) NALCO DYNACOOOL 1389 (cooling water dispersant) shall be used to enhance the dispersion of mud and silt in the nuclear service heat exchangers during wet layup. The discharge of this parameter from Outfall 001 shall not exceed 0.3 mg/l per occurrence.
- 3) dibromo-3-nitrilopropionamide or DBNPA (microorganism control) shall be used to control microorganisms in the nuclear service water heat exchangers during wet layup. The discharge of this parameter from Outfall 001 shall not exceed 0 mg/l per occurrence since this product decays away within 72 hours of application.
- 4) 3-MPA or 3-methoxypropylamine (ethanolamine replacement) shall be used as a pH control additive to reduce the amount of low level radioactive waste generated at the site. The discharge of this parameter from Outfall 002 shall not exceed 0.1 mg/l per occurrence.

Duke Power Co./Catawba Nuclear Station
2/15/95 letter
Page 2

If you should have any questions, please call me at (803)734-5247.

Sincerely,

Timothy M. Eleazer
Timothy M. Eleazer
Environmental Engineer Associate
Industrial and Agricultural
Wastewater Division

TME/CAT

cc: Al Williams, Catawba EQC