

**BEFORE THE ARKANSAS COMMISSION ON  
POLLUTION CONTROL & ECOLOGY**

**IN RE: REQUEST BY GREAT LAKES )  
CHEMICAL CORPORATION— )  
CENTRAL FACILITY— )  
TO INITIATE RULEMAKING )  
TO AMEND REGULATION NO. 2 ) DOCKET NO. \_\_\_\_\_**

**PETITION TO INITIATE THIRD-PARTY  
RULEMAKING TO AMEND REGULATION NO. 2**

Petitioner, Great Lakes Chemical Corporation—Central Facility (“GLCC”), for its Petition to Initiate Third-Party Rulemaking to Amend Regulation No. 2 (“Petition”) states:

1. This Petition is submitted pursuant to Section 2.306 of Arkansas Pollution Control and Ecology Commission (APCEC) Regulation No. 2, Section 3.4 of APCEC Regulation No. 8 and the Continuing Planning Process. As set forth more fully below in paragraph 7, GLCC is requesting: (a) modifications to the chloride, sulfate and total dissolved minerals (TDS) criteria of the Arkansas Water Quality Standards (WQS) and removal of the designated, but not existing, domestic water supply use for an unnamed tributary to Bayou de Loutre (referred to hereafter as UT002); (b) modifications to the chloride and TDS criteria and removal of the designated, but not existing, domestic water supply use for a second unnamed tributary to Bayou de Loutre (referred to hereafter as UT004); (c) a modification to the chloride criteria and removal of the designated, but not existing, domestic water supply use for a portion of the Bayou de Loutre; (d) modifications to the chloride, sulfate and TDS criteria and removal of the designated, but not existing, domestic water supply use for an unnamed tributary to an unnamed tributary of Little Cornie Bayou (hereafter referred to as UT003); (e) modifications to the chloride and TDS criteria and removal of the designated, but not existing, domestic water supply use for an unnamed

tributary to Little Cornie Bayou; and (f) modifications to the chloride and sulfate criteria for a portion of Little Cornie Bayou.

2. GLCC operates a bromine extraction facility south of El Dorado which produces specialty chemicals in a bromine production process. GLCC has operated the facility for over 30 years.

3. Stormwater runoff is discharged from Outfalls 002 and 004 as authorized by the Arkansas Department of Environmental Quality (ADEQ) under National Pollutant Discharge Elimination System (NPDES) Permit No. AR0001171 which was effective on January 1, 2004. This NPDES Permit also authorizes the discharge from Outfall 003 of stormwater runoff and non-process water (e.g., non-contact cooling water, boiler blowdown, freeze protection, etc.). The effluent from these outfalls discharge into unnamed wet weather tributaries. Outfalls 002 and 004 each discharge to separate unnamed tributaries of Bayou de Loutre. Outfall 003 discharges to an unnamed tributary of an unnamed tributary to Little Cornie Bayou.

4. Each outfall is addressed specifically in GLCC's Spill Prevention Control and Countermeasures plan (SPCC) and its Storm Water Pollution Prevention Plan (SWPPP). Best Management practices (BMPs) at each outfall have been implemented to reduce contamination of storm water and prevent spill release. Outfall 002 has a retention basin into which stormwater flow can be diverted prior to discharge should the need arise and can be discontinued if needed. Outfall 003 has a sump system designed to capture first flush waters and serve as tertiary spill containment should primary and secondary controls fail or be overwhelmed. Specific BMPs for Outfall 004 are found in the SPCC and SWPPP for the facility.

5. The effluent limitations for chloride, sulfate and TDS in GLCC's NPDES Permit are based upon the maintenance of the designated, but not existing, domestic water supply use

for the unnamed tributaries of Bayou de Loutre and Little Cornie Bayou. The applicable Arkansas WQS for the unnamed tributaries to Bayou de Loutre and Little Cornie Bayou are:

Chloride – 14 mg/l  
Sulfate – 31 mg/L  
TDS – 123 mg/L

The applicable chloride standard for Bayou de Loutre is 250 mg/L.

The applicable WQS for Little Cornie Bayou are:

Chloride – 200 mg/l  
Sulfate – 20 mg/l

6. Pursuant to APCEC Regulation No. 2, the watercourses at issue herein are assigned the following designated uses:

**Unnamed Tributary to Bayou de Loutre (UT002)**

Seasonal Gulf Coastal Fishery  
Domestic, industrial and agricultural water supply  
Secondary Contact Recreation

**Unnamed Tributary to Bayou de Loutre (UT004)**

Seasonal Gulf Coastal Fishery  
Domestic, industrial and agricultural water supply  
Secondary Contact Recreation

**Bayou de Loutre above the mouth of Loutre Creek**

Seasonal and Perennial Gulf Coastal Fishery  
Domestic, industrial and agricultural water supply  
Secondary Contact Recreation

**Unnamed Tributary to the unnamed tributary to Little Cornie Bayou (UT003)**

Seasonal Gulf Coastal Fishery  
Domestic, industrial and agricultural water supply  
Secondary Contact Recreation

**Unnamed Tributary to Little Cornie Bayou**

Seasonal Gulf Coastal Fishery  
Domestic, industrial and agricultural water supply  
Secondary Contact Recreation

**Little Cornie Bayou**

Perennial Gulf Coastal Fishery  
Domestic, industrial and agricultural water supply

## Secondary Contact Recreation

These designated uses are existing uses with the exception of the domestic water supply use.

7. Through this Petition, GLCC is requesting the following amendments to APCEC

Regulation No. 2:

- a. modify the dissolved minerals criteria for the entire length of UT002 as follows:

TDS from 123 mg/L to 141 mg/L  
sulfate from 31 mg/L to 35 mg/L  
chloride from 14 mg/L to 65 mg/L

- b. modify the dissolved minerals criteria for the entire length of UT004 as follows:

TDS from 123 mg/L to 324 mg/L  
chloride from 14 mg/L to 239 mg/L

- c. modify the chloride criterion for Bayou de Loutre from its the confluence with UT004 to Loutre Creek as follows:

chloride from 250 m/L to 278 mg/L

- d. modify the dissolved minerals criteria for the entire length of UT003 as follows:

TDS from 123 mg/L to 519 mg/L  
sulfate from 31 mg/L to 35 mg/L  
chloride from 14 mg/L to 538 mg/L

- e. modify the dissolved minerals criteria for the unnamed tributary of Little Cornie Bayou from its confluence with UT003 to its mouth as follows:

TDS from 123 mg/L to 325 mg/L  
chloride from 14 mg/L to 305 mg/L

- f. modify the dissolved minerals criteria for Little Cornie Bayou from its confluence with the unnamed tributary to the Arkansas/Louisiana state line as follows:

sulfate from 20 mg/L to 25 mg/L  
chloride from 200 mg/L to 215 mg/L

- g. remove the Domestic Water Supply use designation for the entire length of UT002.
- h. remove the Domestic Water Supply use designation for the entire length of UT004.
- i. remove the Domestic Water Supply use designation for the Bayou de Loutre from its confluence with UT004 to the mouth of Loutre Creek.
- j. remove the Domestic Water Supply use designation for the entire length of UT003.
- k. remove the Domestic Water Supply use designation for the unnamed tributary to Little Cornie Bayou from its confluence with UT003 to its mouth.

8. A black-lined version of the specific changes which are requested to Regulation No. 2 is attached hereto as Exhibit "A" and is incorporated herein.

9. On June 28, 2006, GLCC submitted to ADEQ a document entitled *Section 2.306 Site Specific Water Quality Study for Cl, SO<sub>4</sub> and TDS* in support of this Petition (hereinafter "the Study"). The Study is filed contemporaneously herewith as Exhibit "E." This document fully satisfies the information requirements of Section 2.306 of Regulation No. 2 for Site Specific Criteria for amending Regulation No. 2.

10. This Petition is supported by the following facts:

- The domestic water supply use designations for UT002, UT004, Bayou de Loutre from its confluence with UT004 to Loutre Creek, UT003, and the unnamed tributary to Little Cornie Bayou from its confluence with UT003 to its mouth were assigned by default, are not existing uses, and are not attainable uses because the natural, ephemeral and low flow conditions prevent the attainment of the use;

- The aquatic life field studies conducted in April and May of 2005 show that despite the fact that the watercourses are seasonal wet weather tributaries with small watersheds which limit the development of biotic communities, the designated aquatic life use and the biological integrity of the watercourses is being maintained downstream of the discharges;
- The existing discharges pass the WET testing requirements of the NPDES permit. Toxicity testing in 100% whole effluent from Outfalls 002 and 004 and WET testing of the Outfall 003 demonstrate no toxicity as a result of the dissolved mineral concentrations;
- Current discharge concentrations have been reduced from historic concentrations through facility upgrades to Best Management Practices and spill control containment and cleanup;
- There is no current economically feasible treatment technology for the removal of chloride, sulfate, or TDS. Ion exchange and reverse osmosis treatment technologies do exist; however, these methods are not cost effective on a large scale basis, are prohibitively expensive, and generate a concentrated brine which is environmentally difficult to dispose of. Such treatment technology is not required to meet the existing uses and would not add any significant environmental protection.

11. The Questionnaire for Filing Proposed Rules and Regulations with the Arkansas Legislative Council and Joint Interim Committee is attached hereto as Exhibit "B" and is incorporated herein.

12. The Financial Impact Statement is attached hereto as Exhibit "C" and is incorporated herein.

13. The Economic Impact/Environmental Benefit Analysis is attached hereto as Exhibit "D" and is incorporated herein.

14. GLCC has reviewed Executive Order 05-04 and has determined that the request herein does not affect small business for the following reasons: (a) there are no known commercial operations located on or adjacent to the affected watercourses which use the waters; (b) if there were any agricultural or industrial operations, this rulemaking will not increase the loadings of the affected watercourses but rather will set the WQS at a level commensurate with existing in-stream concentrations that reflect continued efforts by GLCC to reduce the historic concentrations and, therefore, there will be no impact to any agricultural or business usage of the affected watercourses should they exist; and (c) the aquatic life studies of the affected stream segments demonstrates that the other designated uses (aquatic life and seasonal fisheries uses) are being maintained to the extent supported by the available habitat. Therefore no economic impact analysis by the Arkansas Department of Economic Development is required.

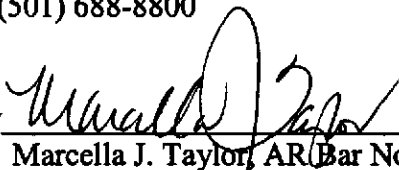
15. Documentation supporting the changes requested by paragraph 7, above, have been reviewed by the Arkansas Natural Resources Commission and the Arkansas Department of Health and Human Services. The Arkansas Natural Resources Commission has provided documentation that the requested changes do not conflict with the Arkansas Water Plan. The Arkansas Department of Health and Human Services has provided documentation that neither UT002, UT004, Bayou de Loutre from its confluence with UT004 to Loutre Creek, UT003, or the unnamed tributary to Little Cornie Bayou has been approved as, or is being considered as, domestic water sources. Copies of these agencies' documentation are attached hereto as Exhibit "F" and incorporated herein.

15. The proposed Minute Order to initiate rulemaking is attached hereto as Exhibit "G" and is incorporated herein.

WHEREFORE, Great Lakes Chemical Corporation, requests that the Commission initiate a rulemaking to amend Regulation No. 2 in the manner requested in Paragraph 7, above.

Respectfully submitted,

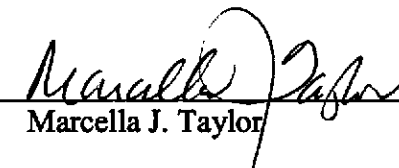
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By   
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Marcella J. Taylor, AR Bar No. 82156

**Attorneys for Great Lakes Chemical  
Corporation**

**CERTIFICATE OF SERVICE**

I, Marcella J. Taylor, state that I have, on this 31<sup>st</sup> day of August, 2006, hand-delivered a copy of the foregoing Petition to Initiate Third-Party Rulemaking to Amend Regulation No. 2 to Ms. Ellen Carpenter, Arkansas Department of Environmental Quality, 8001 National Drive, Little Rock, AR 72219.

  
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Marcella J. Taylor