

**VIA CERTIFIED MAIL: 7004 0750 0000 9377 2108**  
**RETURN RECEIPT REQUESTED**

**EL DORADO**

CHEMICAL COMPANY

June 1, 2006

Mr. Dennis Benson  
Technical Assistance Manager  
NPDES Permits Section - Water Division  
Arkansas Department of Environmental Quality  
8001 National Drive  
Little Rock, Arkansas 72219-8913

RE: Annual Compliance Progress Report – El Dorado Chemical Company  
NPDES No. AR0000752

Dear Mr. Benson:

Pursuant to the requirements of Part IB Section B2 of the referenced NPDES permit, this letter serves as the second year Annual Compliance Progress Report. Pursuant to Part II Section D 5, this report is being submitted within 14 days of the schedule date of June 1, 2006.

During the second year under the referenced NPDES Permit, El Dorado Chemical Company (EDCC) has continued to conduct projects and studies in an effort to not only meet the final limitations of the NPDES permit, but to ensure compliance with current permit limitations. During the past year, there continued to be significant progress as a result of these activities. The following paragraphs present the details.

1. Hydrologic Study

EDCC submitted a hydrologic study plan for the storm water outfalls. This plan was approved by ADEQ and then subsequently revised to modify the location of the background monitor for Outfalls 006 and 007. During 2006 the level loggers continued to collect data pursuant to the approved work plan and the subsequent revision due to low flow conditions in 2005. Additional flow measurements required by the study plan were made during this quarter and we anticipate completion of the flow measurements during the 3<sup>rd</sup> quarter of 2006. The hydrologic study report will be developed and submitted to the ADEQ after that data is collected.

2. Retention Basin Temperature Study

Pursuant to the requirements of the final NPDES permit, EDCC submitted a temperature study plan for the purpose of determining the influence of ambient conditions on the temperature regime of the retention basin at EDCC. The study report was completed and submitted to the ADEQ during the 4<sup>th</sup> quarter of 2005. During the 1<sup>st</sup> quarter of 2006 ADEQ sent out review comments which were addressed by GBMc in correspondence. At this time there has been no permitting action based on the final study report. EDCC requests ADEQ to move forward on permitting action for EDCC to be able to discharge in July and August 2006.

COMPLIANCE FILES  
NPDES # 752  
DMR'S Lt.  
NCR coded  
 CORRESPONDENCE  
CPAC

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### 3. Storm Water Outfall Compliance

During the reporting period the following activities were accomplished to effectuate compliance with storm water discharges from Outfalls 004, 005, 006 and 007.

- EDCC evaluated alternatives including gravity diversion and source reduction to attain compliance with permit limits at Outfalls 006 and 007.
- Outfall 004 is in final stages of being diverted to Lake Lee.
- Storm water runoff from the industrial areas of Outfall 005 and part of Outfall 006 were routed into Lake Lee.
- Outfall 005 will be physically eliminated and a request to delete it from our NPDES permit was sent to the ADEQ on March 29, 2006. This project is on hold pending ADEQ's approval for routing Outfall 003 to Lake Lee.

### 4. Source Reduction Analysis

During the reporting period source reduction activities continued, including:

- Process improvements in the Nitrate Plant and Acid Plant areas were implemented to reduce waste loading to the wastewater system. These efforts have paid-off with major reductions in the nitrate and ammonia concentrations in the wastewater measured in Lake Lee. 2006 year to date Lake Lee effluent averaged 33 mg/L Ammonia-N and 67 mg/L Nitrate-N down from 2005's average of 120 mg/L Ammonia-N and 178 mg/L Nitrate-N. 2006 year to date Outfall 001 averaged 12 mg/L Ammonia-N and 63 mg/L Nitrate-N down from 2005's average of 70 mg/L Ammonia-N and 142 mg/L Nitrate-N.
- Efforts continue to identify and repair piping and collection sumps in the Nitrate Plant area and Acid Plant Area to reduce waste loading to the wastewater system.
- The plant continues to recover waste streams for recycling in the processes. The plant has reduced the overall wastewater flowing to Lake Lee on a dry weather basis from 1.0 MGD to 0.6 MGD.

### 5. Wastewater System

During the reporting period, EDCC continued activities regarding the upgrade of the wastewater treatment system. These activities focused on both Lake Lee and Lake Kildeer as listed in the following sections.

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#### Wastewater/Storm Water Treatment

- Engineering work being done to route Outfall 006 and 007 to Lake Lee will be completed in the 2nd quarter of 2006.
- Constructed a new pipeline from Lake Lee to Lake Kildeer to convey peak storm/process flows and minimize discharges from Outfall 001.
- In March of 2006, EDCC requested that ADEQ authorize a pilot test allowing the diversion of raw domestic sewage to Lake Lee to be used as a carbonaceous material supplement for the biological nitrification/denitrification process. As of this writing, ADEQ has not approved the request and EDCC is pursuing a meeting at which to discuss the need for this pilot project. With the lack of a carbon source in EDCC's wastewater, it is essential that raw domestic sewage be routed to Lake Lee. This could prevent EDCC from having to add Methanol as a carbon source.
- EDCC installed AquaMats in Lake Lee and Lake Kildeer. AquaMats are membranes for biofilm to attach. The AquaMats will sustain colonies of nitrifying and denitrifying bacteria to effectuate nitrogen removal treatment.

#### 6. Wastewater Treatment Bioaugmentation

During the reporting period, EDCC continued implementation of the alternative wastewater treatment technology. We continue the collection of performance data to determine the efficacy of the organisms in our wastewater treatment system.

The data that EDCC has collected so far indicates that the source reduction and wastewater treatment improvements (including the addition of various microbes) has had a positive impact on the wastewater treatment system. The biomonitoring results from Outfall 001 continue to demonstrate steady improvement with all of the 2006 tests to date passing at 100% effluent water for lethality. The concentrations of contaminants such as ammonia-nitrogen and nitrate also continue to decline as well. The attached charts present the biomonitoring test results, the results of the source reduction efforts and effluent quality from Outfall 001.

#### 7. Joint Pipeline Activities

During the reporting period, the ADEQ public noticed draft NPDES permits, the construction permit and the Water Quality Management Plan (WQMP) which supports the NPDES permit effluent limitations. In addition, the ADEQ conducted a public hearing on all the draft permits and the WQMP. We anticipate finalization of the permits during 2006.

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8. Ouachita River Nutrient Study

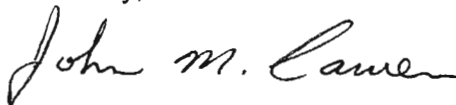
Additionally, during the reporting period, EDCC participated in the completion of the Ouachita River nutrient study requested by the ADEQ and other natural resource agencies. The final report for the study is to be completed and submitted to ADEQ by June 1, 2006.

9. Dissolved Minerals Study

During the reporting period, EDCC initiated a review of the receiving streams for Outfall 001 for the purpose of determining the feasibility of conducting a water quality study to amend the Arkansas Water Quality Standards for dissolved minerals and to remove the designated, but not existing, domestic water supply use. Based on the initial biological survey, the decision was made to proceed with the third-party rulemaking process and the fieldwork was completed during the reporting period. We anticipate submittal of the third party rulemaking request during 2006.

Hopefully, this letter has adequately explained the status of our NPDES compliance efforts during the reporting period. Should you have any questions, please feel free to call me at (405) 235-4546.

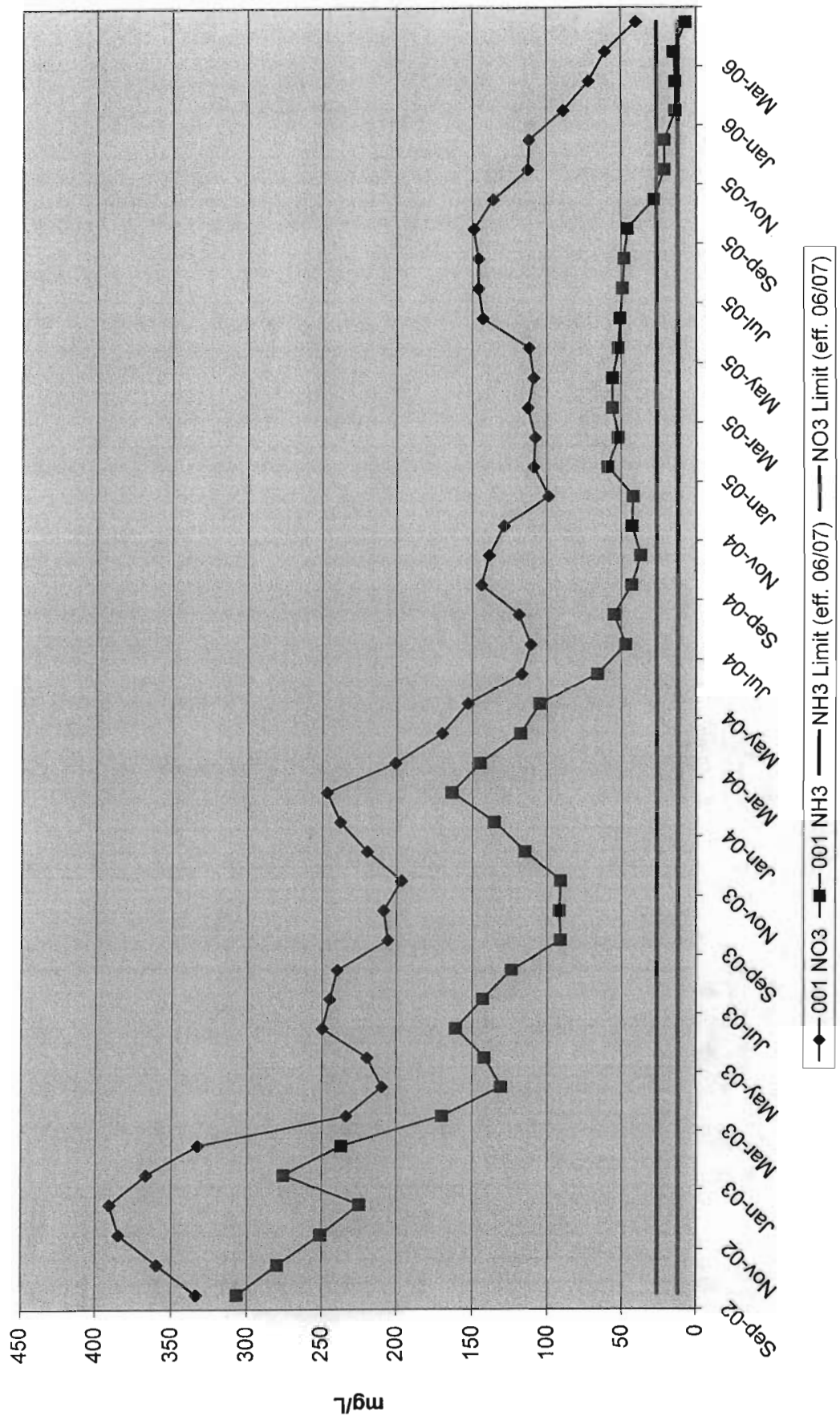
Sincerely,



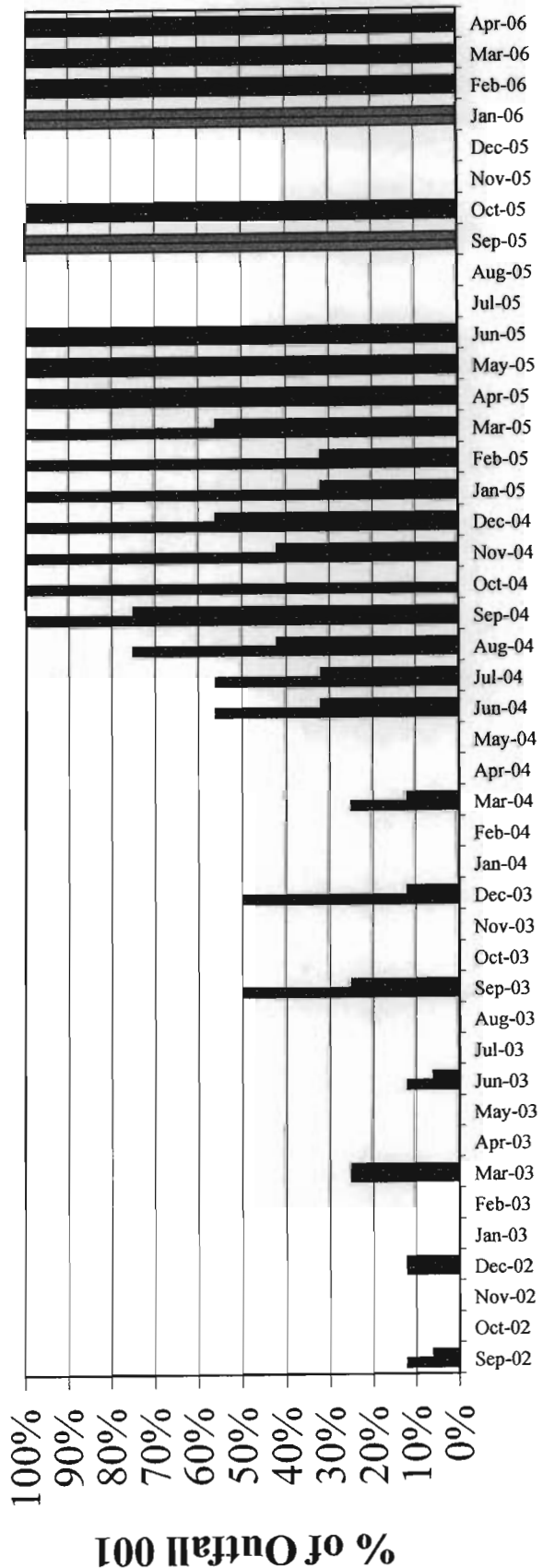
John M. Carver  
Vice President Safety and  
Environmental Compliance

cc: Mary Leath, Chief Deputy Director, ADEQ  
Martin Maner, Chief, Water Division, ADEQ

**El Dorado Chemical Co.**  
**Outfall 001 Monthly**  
**Averages**



El Dorado Chemical Co.  
Outfall 001 Biomonitoring Test Results



No Observed Effects Concentration - Survival

■ Water Flea ■ Fathead Minnow