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January 12, 2007

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

70-00040 NPDES COMPLIANCE FILES
NPDÉS COMPLIANCE FILES
NPDES # 00152
DMR'S
NCR
CORRESPONDENCE
CRAS

RE: Quarterly Report – Fourth Quarter 2006, CAO LIS 98-119

Dear Mr. Benson:

This letter serves as the referenced Quarterly Report. During this quarter there continued to be significant actions regarding the NPDES permit for EI Dorado Chemical Company (EDCC). As related in previous quarterly reports, these actions centered on projects and studies related to compliance with our current NPDES permit as well as the continued development of the project to construct a pipeline to the Ouachita River. The following paragraphs present details regarding these activities.

#### 1. Hydrologic Study

As related in previous quarterly reports, 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 the 3rd quarter of 2006 the hydrologic study was completed and the final report submitted to the ADEQ. During the 4<sup>th</sup> quarter of 2006, the ADEQ Water Division informed us that they would be sending out review comments, but EDCC did not receive those comments during that timeframe. EDCC received comments dated January 5, 2007 and will respond in a timely manner.

## 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 4<sup>th</sup> quarter of 2006, there continued to be no permitting action based on the final study report. EDCC received approval of the temperature study in a letter dated January 5, 2007 and the temperature limit will be removed from the permit upon renewal or modification of the existing permit.

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#### 3. Storm Water Outfall Compliance

During the 4th quarter of 2006 the following activities were accomplished or continue to effectuate compliance with storm water discharges from Outfalls 004, 005, 006 and 007.

- Engineering work to capture the first two inches of rainfall in the Outfall 006 and 007 drainage areas and route to the wastewater treatment system was initiated during the fourth quarter.
- As mentioned in earlier reports, Outfall 004 has been plugged and is no longer operative. The pumps diverting the Outfall 004 water continue to transport stormwater to the wastewater treatment system via Lake Lee. ADEQ has deleted Outfall 004 from our existing NPDES permit effective January 5, 2007.
- As mentioned in earlier reports, the stormwater runoff from the industrial areas of Outfall 005 and part of Outfall 006 continue to be routed into Lake Lee.
- Outfall 005 was physically eliminated and a request to delete it from our NPDES permit was sent to the ADEQ during the first quarter of 2006. ADEQ has deleted Outfall 005 from our existing NPDES permit effective January 5, 2007.

#### 4. Source Reduction Analysis

During the 4th quarter of 2006, source reduction activities continued, including:

Process improvements in the Nitrate Plant and Acid Plant areas continue to be 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. In the fourth quarter of 2006, Lake Lee effluent averaged 25.4 mg/L Ammonia-N and 32.6 mg/L Nitrate-N down from 2005's average of 120 mg/L Ammonia-N and 178 mg/L Nitrate-N. In the fourth quarter of 2006, Outfall 001 averaged 2.59 mg/L Ammonia-N and 6.77 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.

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#### 5. Wastewater System

During the 4th quarter of 2006, activities continued regarding the upgrade of the wastewater treatment system. These activities focused on both Lake Lee and Lake Kildeer as listed in the following sections.

 During the 4th quarter of 2006, EDCC continued use of the AquaMats in Lake Lee and Lake Kildeer. AquaMats are membranes for sustaining colonies of nitrifying and denitrifying bacteria.

#### 6. Wastewater Treatment Bioaugmentation

As discussed in previous quarterly reports, during the 4th quarter of 2006, 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 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 the 4th quarter 2006 tests passing at 100% effluent water for lethality. The concentrations of contaminants such as ammonia-nitrogen and nitrate also continue to decline as well.

The charts attached show the source reduction the plant has accomplished to date.

#### 7. Ground Water Study

During the 4th quarter of 2006, EDCC continued communications with ADEQ on EDCC's groundwater monitoring program. Comments on that proposed CAO were submitted to the ADEQ on April 12, 2006. EDCC has committed to installing two recovery wells as an interim groundwater restoration measure. EDCC started operation of the two recovery wells on November 1, 2006. The CAO was finalized and became effective November 11, 2006.

#### 8. Joint Pipeline Activities

During the 4thd quarter of 2006, EDCC, in support of the joint pipeline, continued to be active in the finalization of the joint pipeline related NPDES permits by supplying additional Ouachita River dissolved oxygen modeling information to ADEQ through GBMc & Associates. This information was requested by ADEQ to address concerns

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raised by the State of Louisiana. Finalization of the NPDES permits related to the joint pipeline is anticipated during the 1st or 2<sup>nd</sup> quarters of 2007.

# 9. Water Quality (4g) Study for Dissolved Minerals

During the 4th quarter of 2006, The Pollution Control and Ecology Commission held the public hearing on EDCC's Third Party Rulemaking request to amend the dissolved minerals criteria and the designated domestic water supply use for the unnamed tributary into which Outfall 001 discharges. We anticipate completion of the Third Party Rulemaking during the 2<sup>nd</sup> quarter of 2007, dependent on the State administrative process timeframes.

## 10. NPDES Permit Renewal Application

During the 4th quarter EDCC submitted a renewal NPDES permit application for renewal within the required timeframes.

Hopefully, this letter has adequately explained the status of our NPDES compliance efforts during the 4th quarter of 2006. Should you have any questions, please feel free to call me at (405) 235-4546.

Sincerely,

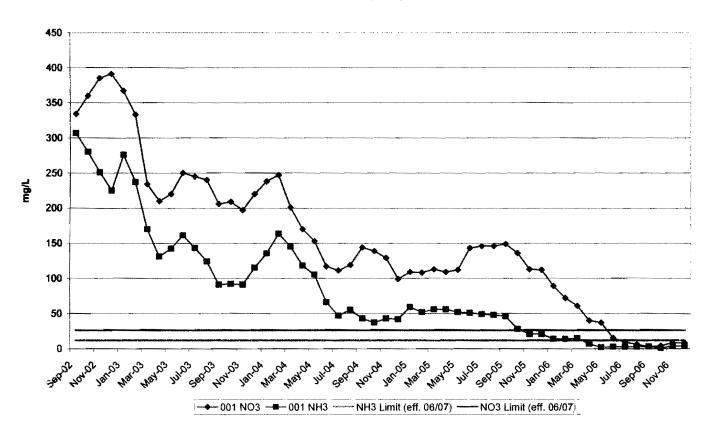
John M. Carver

Vice President Safety and Environmental Compliance

JMC/ymq

cc: Belinda Colby, Enforcement Coordinator, Hazardous Waste Division Keith Brown, Manager, State Permits, Water Division Martin Maner, Chief, Water Division

# El Dorado Chemical Co. Outfall 001 Monthly Averages



EL Dorado Chemcial Lake Lee Weekly Average 2005 - 2006 YTD

