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**RETURN RECEIPT REQUESTED**

May 31, 2005

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 permit, this letter serves as the first 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, 2005.

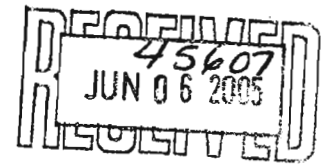
In the year since the effective date of the referenced El Dorado Chemical Company (EDCC) has conducted numerous projects and studies in an effort to not only meet the final limitations of the NPDES permit, but to ensure compliance with current permit limitations. The following paragraphs present details regarding these activities.

1. Hydrologic Study

Pursuant to the requirements of the final NPDES permit, during the reporting period 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 1<sup>st</sup> quarter of 2005 the level loggers were installed at EDCC in accordance with the work plan and data collection was initiated in accordance with the approved work plan. The study will be completed within the timeframes set by the NPDES permit.

2. Retention Basin Temperature Study

Pursuant to the requirements of the final NPDES permit, during the reporting period 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. During the 4<sup>th</sup> quarter of 2004 ADEQ approved the study plan. The study is scheduled to be conducted starting in



COMPLIANCE FILES  
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the second quarter of 2005 and will be completed within the timeframes set by the NPDES permit.

### 3. Storm Water Outfall Compliance

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

- Moved equipment and pipe racks out of the area north of the administration building to eliminate industrial storm water exposure in this drainage area. The pipe racks and equipment were moved to the south side of the east wing of the gas engine building.
- Moved fuel tank from the switch engine (Watco) outside storage area to the existing fuel storage area just west of the garage. Secondary containment pans were eliminated on the oil tank by installing a double wall tank. The location also provides drainage to Lake Lee through the new line.
- Installed a new underground drain line to eliminate industrial area storm water drainage to 005. The line will allow the parking lot south to the entrance road and front lawn area to be the only source of storm water discharging to 005. This line will be opened for use as soon as the dredging is completed and force main installed at Lake Lee.
- Identified, removed, and replaced approximately 100 cubic yards of stained soil and gravel around the Watco area.
- Excavated, removed and concrete sealed old sanitary sewer field lines and drain tile in the 004 area. Installed new head walls, cleaned and added limestone to ditch drainage areas coming into 004 outfall.
- Regraded approximately 5 acres to redirect storm water to new Lake Lee line that previously drained to Outfall 006. The activities required to regrade the area included changing the slope and clearing the existing drainage ditches and culverts.
- Old facility drawings indicate that an underground drainage system is located north of the gas engine building. Efforts were made to locate and verify the condition of this drainage system. This system may be used to redirect storm water runoff currently flowing to Outfall 007 to the basement of the gas engine building and then to Lake Lee via gravity flow.
- GBM<sup>c</sup> developed a conceptual design to capture storm water runoff from Outfalls 004, 006, and 007 and divert the runoff to Lake Lee. The conceptual design plans include channels from Outfalls 006 and 007 that direct storm water discharge to an impoundment to be constructed northeast of Outfall 006. The impoundment is designed to contain and pump the runoff from a 2-inch rainfall event to the basement of the gas engine building and then gravity flow to Lake Lee. Runoff that exceeds the capacity of the capture and transfer system (>2 inches) will discharge through an overflow structure to the current receiving stream for Outfalls 006 and 007. Existing topography and a pump station will be used at Outfall 004 to contain and transfer runoff from a 2-inch rainfall event into

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Lake Lee. The existing outfall configuration will require modification to create an impoundment as well as an overflow structure to discharge runoff from rainfall events greater than 2 inches.

- Lined approximately 1,000 linear feet of drainage ditches to Outfalls 006 and 007 with limestone to provide pH control for storm water runoff.
- Anderson Engineering completed 12 borings for geotechnical analysis of the area for the proposed Outfall 004, 006, and 007 storm water capture systems.
- GBM<sup>c</sup> coordinated surveyors to provide information required for final design of the Outfall 004, 006, and 007 storm water capture systems.
- Completed regrading approximately two (2) acres north of the warehouse. Constructed new top sections on old manholes and repaired lines in the area to redirect storm water to the collection system new line that will convey water to Lake Lee.

#### 4. Source Reduction Analysis

During the reporting period there were several source reduction activities accomplished, including:

- Met with GE Betz to discuss the possibility of installing an RO unit to assist in capturing, treating, and returning some high nitrogen streams to the process that are currently flowing to the wastewater treatment system.
- GBM<sup>c</sup> compiled data gathered from the facility through the source reduction survey, site visits, and correspondence to develop a basis of design for a wastewater treatment system.
- Provided sample from Lake Lee to GE Betz to assist in determining the appropriate technology for the application at EDCC.
- Reduction of loading from the E2 plant has been accomplished by improved neutralizer performance and addition of E2 Chemical Steam Scrubber.
- Engineering continues to evaluate the KT and E2 processes for further source loading reductions.

#### Wastewater System

During the reporting period, there were numerous activities conducted in relation to 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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*Lake Lee*

- Contracted with Terra Renewal Services (TRS) to remove the accumulated sludges from Lake Lee. All documentation required to initiate this project was been submitted to ADEQ and a State land application permit for TRS has been finalized. Consequently, the sludge cleanout project has been initiated in accordance with the permit. The removal of the sludge will increase retention time and therefore the treatment efficiency of Lake Lee.
- The capacity of the existing gravity line from Lake Lee to Lake Kildeer is adequate to convey the water entering Lake Lee under the current drainage configuration. However, the addition of multiple storm water sources (i.e., 004, 006, and 007 drainage areas) could create the potential to exceed the capacity of the existing line. Therefore, additional capacity is required to transport the water entering Lake Lee to Lake Kildeer to prevent discharging through Outfall 002. Based on elevation data gathered from the facility, a pump and forcemain from Lake Lee to Lake Kildeer is the most feasible solution. Information was gathered to enable the preliminary design of the pump and forcemain system.
- The outfall structure at Lake Lee is equipped with a normally closed butterfly drain valve that would discharge uncontrolled to Outfall 002 if it failed. If the valve were to fail the entire contents of Lake Lee could be discharged to the receiving stream for Outfall 002. To prevent this occurrence, EDCC developed a plan to protect the valve from failure. Concrete was placed in the bottom of the Lake Lee overflow structure to raise the floor of the structure to the invert elevation of the discharge tile. Reinforcement and forms were constructed and concrete was placed around the butterfly drain valve on Lake Lee and sealed to prevent its failure.
- Process drains from the KT plant flow west to a concrete collection box that measures approximately 14 feet by 9 feet. The french drain sump also pumps to this collection box. The collected water flows to Lake Lee via approximately 1,900 feet of gravity pipeline. Sediment has accumulated in the collection box and pipeline, causing a decrease in the flow capacity. The accumulated solids were removed from the collection box and the pipeline was cleaned with a Sewer Jet.
- Engineering is implementing changes to the pH neutralization system to minimize pH swings in Lake Lee.

*Lake Kildeer*

During the reporting period GBMc completed the detailed engineering analyses regarding the upgrading the wastewater treatment facilities at EDCC to meet the final NPDES permit limitations. EDCC is now reviewing the options in concert with the source reduction activities to determine the most cost effective methods of implementation.

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5. Wastewater Treatment Bioaugmentation

During the reporting period, El Dorado Chemical Company 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.


6. Joint Pipeline Activities

During the reporting period, there were additional actions regarding the joint pipeline construction and permitting. These actions included meeting with the ADEQ NPDES Permitting staff on joint and individual permit issues, involvement in the ADEQ NPDES site visit to El Dorado and completion of the joint effluent toxicity testing project in accordance with the protocol approved by the ADEQ. In addition, in concert with the other entities, the surveying of the proposed joint pipeline route was completed along with development of the bid package for the final design of the joint pipeline. The Request for Qualifications (RFQ) for the selection of the design engineer was completed by the City of El Dorado.

In May 2005, EDDC along with the other local entities met with ADEQ management in Little Rock for the purpose of determining the status of the permitting process involved in the project. At this time all documentation requested by ADEQ in regard to the pipeline has been developed and transmitted. We are now awaiting the initiation of the NPDES and state construction permitting processes by ADEQ.

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

JMC/ymq

cc: Martin Maner, Chief, Water Division