



Caterpillar Inc.

9201 Faulkner Lake Road
North Little Rock, AR 72117

May 18, 2012

Ms. Michelle Bolenbaugh
Enforcement Analyst, Water Division
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317
(bolenbaughm@adeq.state.ar.us)

Via Overnight and Electronic Mail

Re: 30-Day Report for Stormwater Compliance Issue; NPDES Permit No. AR0051454

Dear Ms. Bolenbaugh:

This letter shall serve as the required report to the Arkansas Department of Environmental Quality ("ADEQ") detailing the unintentional release of pre-treated wastewater to stormwater Outfall 001 at the Caterpillar Inc. ("Caterpillar") North American Motor Grader Facility located at 9201 Faulkner Lake Road, North Little Rock, Arkansas, 72117 ("Facility"). This report is being timely submitted within 30 days as required by Part 7.3 of the Facility's National Pollutant Discharge Elimination System ("NPDES") Permit No. AR0051454 and provides a summary of the incident and response actions undertaken by Caterpillar to prevent reoccurrence. Consistent with Ms. Stout's electronic correspondence of April 18, 2012, we are sending this information to your attention.

As discussed below, this release was discovered on April 17, 2012 and has been determined to be the result of mis-routed subsurface piping that was not reflected on the Facility's as-built drawings and resulted in the sanitary line from the Facility's wastewater pretreatment plant being directed to Outfall 001 rather than to the North Little Rock Waste Water Utility ("POTW"). Upon discovery, Caterpillar took immediate, decisive steps to prevent further release, identify the source of the problem, and confirm the extent of any site impacts. Caterpillar also promptly reported the incident to ADEQ. Permanent repairs were subsequently made to Facility piping to ensure pre-treated wastewater is properly discharged to the POTW. In addition, sampling conducted pursuant to the Facility's stormwater and wastewater NPDES permits confirms that there have been no environmental or human health impacts as a result of this infrastructure problem. Caterpillar is confident that the Facility is currently operating in compliance with its stormwater NPDES permit.

I. Overview of Caterpillar North American Motor Grader Facility

Caterpillar has been manufacturing commercial motor grader equipment at its North American Motor Grader Facility in North Little Rock since 2009. The Facility operates under stormwater NPDES permit number AR0051454 and wastewater NPDES permit number 201208125.

Following start up of the Facility and up until June 2011, Caterpillar had been collecting the Facility's wastewater in a tank on site and regularly transporting it offsite for proper disposal. To accommodate the wastewater from full Facility operation, Caterpillar retained a professional engineer to design and install a wastewater pretreatment system to treat the wastewater generated from wash water and painting activities prior to discharging to the POTW consistent with the Facility's wastewater NPDES permit. The design of the pretreatment system used the Facility's preexisting piping infrastructure, which was in place when Caterpillar acquired the site in 2009. The professional engineer relied upon as-built drawings provided by the previous owner to conclude that the Facility's pre-treated wastewater was being sent to the sanitary sewer. The POTW inspected this as-built system before hand-delivering the Facility's wastewater NPDES permit in June 2011.

Caterpillar's wastewater pretreatment system treats wastewater in batches, and a batch is sent daily through subsurface piping to the sanitary sump for discharge to the POTW. The Facility generates approximately 6,000 gallons of wastewater per day, 6 days per week. This wastewater contains low levels of metals, oil and grease, and biochemical oxygen demand ("BOD"). Pursuant to the Facility's wastewater NPDES permit, its influent and effluent wastewater is sampled to ensure regulatory compliance. The Facility also periodically samples and visually inspects stormwater from its regulated outfalls consistent with its stormwater NPDES permit requirements.

II. Caterpillar Initiated Response Activities and Notified ADEQ Promptly Upon Discovery of the Release

On April 17, 2012, Caterpillar discovered a subsurface connection between the Facility's wastewater pretreatment system and its stormwater conveyance system that leads to Outfall 001. That outfall discharges to an unnamed ditch which drains to Faulkner Lake. This piping was discovered in the course of repairing the sanitary sump that receives the Facility's sanitary wastewater prior to discharge to the POTW. During the repair activities, personnel observed that process wastewater was not flowing from the process wastewater pipe despite the fact that a batch had been released from the Facility's pretreatment system. Personnel promptly conducted a dye test and identified dye at Outfall 001, thereby confirming a problem with the subsurface piping connections. Prior to this incident, Caterpillar had no reason to suspect that its treated wastewater was not being properly discharged to the POTW; the as-built drawings indicated proper piping connections and stormwater outfall sampling and inspections conducted after implementation of the pretreatment system did not identify any exceedances or visual concerns.

Upon discovery of the infrastructure problem, Caterpillar took immediate action. To prevent any additional discharge of pre-treated wastewater to the storm drain, the Company rerouted the treated effluent through an aboveground pipe to the sanitary sewer system. Since the pre-treated effluent is released in batches rather than continuously, Caterpillar was able to stop further discharges without delay. Caterpillar also conducted a visual inspection of the receiving water at the catchment pond and Faulkner Lake to identify any evidence of impacts. No visible signs of

impacts were identified, including a sheen, emulsification, or discoloration of the water body. Caterpillar attempted to notify ADEQ of the piping issue and response actions on April 17, 2012, but was unable to reach an agency representative or leave a message. Caterpillar promptly followed-up on April 18, 2012, and reported the incident to the agency.

III. Caterpillar Has Implemented a Long-Term Solution to Prevent Incident Reoccurrence

The construction of an aboveground pipe to transport pre-treated wastewater to the sanitary sewer system ensured an immediate correction to the infrastructure problem. To implement a permanent solution and ensure long-term regulatory compliance, Caterpillar retained Conestoga-Rovers & Associates ("CRA") to coordinate the repair of the Facility subsurface piping. In early May 2012, the discharge line from the Facility's wastewater pretreatment system was properly connected to the sanitary sewer pipe discharging to the POTW. CRA prepared an accurate diagram of this new sanitary sewer and storm sewer configuration for Facility records. To confirm the proper connections, CRA ran a rotary snake through the storm sewer line and sanitary sewer line and photographs were taken documenting that the pipes' outfalls were at the storm sewer manhole and sanitary lift station, respectively. In addition, a dye test was conducted, which confirms that the pipe from the Facility's pretreatment system properly discharges to the sanitary lift station. These permanent repairs ensure that the Facility's pre-treated wastewater will continue to be properly discharged to the POTW consistent with the terms of its wastewater NPDES permit.

IV. Wastewater and Stormwater Sampling Confirms Negligible Impacts to Human Health and the Environment

Pursuant to the Facility's wastewater and stormwater NPDES permits, Caterpillar conducts regular sampling of its influent and effluent wastewater and periodic sampling of its stormwater outfalls. These data confirm that the inadvertent discharge of pre-treated wastewater to Outfall 001 did not pose an impact to human health and the environment.

Caterpillar's pretreatment system receives wastewater generated from wash water and painting activities at the Facility. This influent contains low levels of metals, oil and grease and BOD. To understand the potential impacts from this incident, Caterpillar retained CRA, which compared influent and effluent sampling data to Arkansas chronic water quality criteria for the protection of aquatic life ("WQC").¹ In sum, the average concentrations of undiluted influent were generally below or only slightly above the WQC, except for lead which was about 10 times the WQC. Following treatment in the Facility's pretreatment facility, all metals concentrations including lead were significantly lowered, except for zinc, which remained slightly above the WQC.

Taking into consideration the attributes of metals toxicity and the underlying assumptions for chronic WQC, any elevated zinc levels in the treated wastewater would likely have posed a

¹ In the absence of Arkansas water quality criteria, the US Environmental Protection Agency water quality criterion for mercury and the Michigan water quality criterion for molybdenum were used for this analysis.

negligible impact on human health and the environment. In particular, metals toxicity is primarily the result of dissolved metals, whereas the sampling data used for this analysis was generated pursuant to the Facility's wastewater NPDES permit and reflect total metals. These results thus contained appreciable amounts of sorbed and non-toxic metals that would not contribute significantly to water quality impacts. Moreover, metals toxicity is reduced by binding agents, in particular organic carbon, which is likely present in high concentrations in the swampy waters of Faulkner Lake. Finally, the chronic WQC used for this analysis are intended to apply to long-term exposures and must necessarily consider dilution of effluent in the receiving water body. Any negligible impacts of pre-treated wastewater discharged by Caterpillar would have been inevitably reduced as the effluent mixed and was diluted after discharge to Faulkner Lake.

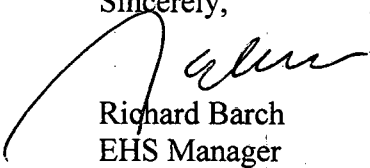
It should also be noted that the comparisons above pertain to undiluted influent and undiluted effluent. In fact, the misdirected effluent was often diluted by stormwater in the pipe prior to discharge to the ditch running into Faulkner Lake. Outfall 001 drains stormwater from a total area of about 12 acres, most of which is impermeable surfaces (parking lot and building). Given an average rainfall of about 50 inches per year, this storm drain conveys approximately 16 million gallons of stormwater per year. This level of dilution alone is sufficient to reduce metals in undiluted influent to below or just marginally above WQC. More specifically, it is more than sufficient to reduce zinc concentrations in effluent below the WQC. This analysis provides additional confidence that observed effluent would not have caused significant ecological effects in Faulkner Lake.

V. Caterpillar has Addressed the Infrastructure Problem and Ensured Long-Term Compliance with its Stormwater NPDES Permit

As discussed herein, Caterpillar had no reason to believe that its pre-treated wastewater was not being discharged to the POTW as depicted on the as-built drawings provided by the previous property owner. Upon discovery of the subsurface piping issue, Caterpillar took decisive action to immediately stop the discharge, implement a temporary solution to prevent any further discharge, and make permanent infrastructure repairs to ensure the Facility operates in compliance with its stormwater and wastewater NPDES permits. Visual inspections of Faulkner Lake and subsequent analysis of sampling data confirms no human health or environmental impacts resulted from this inadvertent release.

Caterpillar appreciates ADEQ's consideration of this information. Please do not hesitate to contact me should you require any additional information or if you would like to set up a meeting to discuss this matter further.

Sincerely,



Richard Barch
EHS Manager
Caterpillar Inc. - North Little Rock

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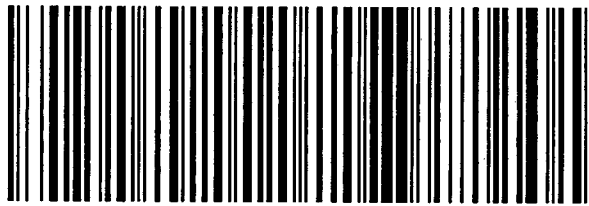
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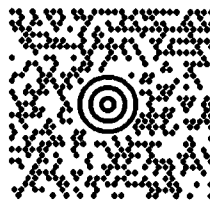
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