



THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL

VICE CHANCELLOR FOR RESEARCH AND ECONOMIC DEVELOPMENT

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May 25, 2010

Ed Hardee  
Aquifer Protection Section  
Division of Water Quality  
N.C. Department of Environment and Natural Resources  
1636 Mail Service Center  
Raleigh, N.C. 27699-1636

Subject: Assessment of Civil Penalties for Violation(s) of N.C.G.S. 143-215.1, Orange County, Enforcement File #: DV-2101-0029

Dear Mr. Hardee:

I am writing in response to the May 14, 2010, Assessment of Civil Penalties letter for the Bingham Facility at the University of North Carolina at Chapel Hill.

In accordance with the letter, I am submitting payment for the full amount of the civil penalty assessed to the University, a total of \$16,612.48.

The violations described in the penalty assessment letter occurred as part of a series of problems with the existing wastewater treatment systems on the site that began in late 2009. As you are aware, because of the problems, the University has shut down the wastewater treatment systems on the site and is hauling the facility's wastewater directly to the Orange Water and Sewer Authority (OWASA) for treatment.

The incidents resulted in two notices of violation from your office. These incidents have been painfully embarrassing to the University because we strive to assure that our practices are environmentally sound in accordance with applicable regulation. Yet these incidents have driven the University to overhaul of the way the Bingham Facility is run, including my appointment to oversee all its operations.

My team and I are in the midst of a thorough re-examination of the whole facility that will result in the design and construction of an even stronger, more sustainable project than originally envisioned. University staff members will meet regularly with DENR staff members to keep the agency informed of our progress and to address any potential issues proactively.

The University does not plan to repair the existing wastewater treatment systems at the Bingham Facility. Instead, the University has hired McKim & Creed, a nationally recognized engineering and design firm that specializes in sustainable design, to develop a reliable, total water management strategy for the site that is both sustainable and environmentally sound. This system will be designed to treat wastewater to the level of reclaimed water, thus alleviating any concerns about possible contamination of the site, groundwater and nearby creek. We will also be able to reuse this reclaimed water in cooling towers and to flush toilets, wash down swine facilities and irrigate the landscape, thus conserving potable water and minimizing the effect on the water table and neighboring wells.

McKim & Creed has worked carefully and thoroughly with researchers and Laboratory Animal Medicine representatives to ensure that the new design will be able to handle the wastewater generated by the maximum number of animals identified in the facility's master plan. They have also analyzed the wastestreams of the existing facilities that will be consolidated at Bingham and incorporated that information into the new design. They will prepare all the construction documents, coordinate with DENR and oversee the construction of the system. Their field notes will be submitted to DENR as part of the permit process, and the firm will sign off on the construction.

In addition, McKim & Creed's work will be peer-reviewed by doctorate-level experts from CDM, an internationally recognized firm specializing in water treatment, reclamation and reuse. These experts will review how the new system design will handle emerging contaminants and disinfection as well as how the wastewater will be reclaimed and reused.

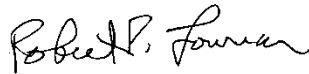
New standard operating procedures are being proposed not only for water and wastewater operations staff, but also for facility staff who will conduct research at the site as well as the animal handling and maintenance staff to make them aware of the impact that chemicals, cleaning agents, sterilizers, etc., have on biological treatment processes. The water and wastewater system operators will receive full training before the system is turned over to the University. They will have an opportunity to participate in the design review, construction, startup and commissioning of the new systems.

The new wastewater treatment system at the Bingham Facility is a key component of a much-needed expansion there that is being partially funded by a \$14.5 million grant from the National Institutes of Health (NIH). This investment is an impressive endorsement of the quality of the University's genetic research on hemophilia, muscular dystrophy and cardiovascular disease.

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The expansion supports the University's research mission by allowing us to consolidate two remote and crowded facilities in one new and more spacious location designed especially for large animal research. The University intends to complete this expansion as expeditiously as possible. We look forward to working with DENR to ensure that our development on the Bingham site meets or exceeds all standards for the use and treatment of water in a responsible and sustainable manner.

Sincerely,

A handwritten signature in cursive script that reads "Robert P. Lowman".

Robert P. Lowman, Ph.D.  
Associate Vice Chancellor for Research  
University of North Carolina at Chapel Hill