## JENNIFER M. GRANHOLM

## STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

JACKSON DISTRICT OFFICE



March 1, 2007

## VIA ELECTRONIC AND US MAIL

Mr. Farsad Fotouhi Environmental Manager Pall Life Sciences, Inc. 600 South Wagner Road Ann Arbor, MI 48103-9019 Mr. Alan D. Wasserman Williams Acosta, PLLC 535 Griswold Street Suite 1000 Detroit, MI 48226-3535

Mr. Michael L. Caldwell Zausmer, Kaufman, August & Caldwell, P.C. 31700 Middlebelt Road, Suite 150 Farmington Hills, MI 48334

Dear Sirs:

SUBJECT: Gelman Sciences, Inc. Remedial Action

Maple Road Interim Response

We have received Mr. Fotouhi's letter, dated December 21, 2006, regarding the Maple Road Interim Response. Mr. Fotouhi offers an alternative to the performance monitoring wells proposed in our December 8, 2006 letter. The Department of Environmental Quality (DEQ) agrees that the borings and monitoring wells proposed by Pall Life Sciences (PLS) may be installed, with a change in the placement of Location D, as described below. However, the DEQ also reaffirms its position that additional performance monitoring wells will be required.

PLS indicates that its proposed alternative is based on PLS's belief that 1,4-dioxane greater than 2,800 parts per billion (ppb) will never reach Maple Road and; therefore, there will unlikely be a need for the additional performance monitoring wells requested by the DEQ. However, Mr. Fotouhi agreed in the December 21, 2006 letter that "there are gaps in the current monitoring system that create uncertainty regarding the distribution of 1,4-dioxane in some important upgradient areas."

PLS's proposed alternative does not eliminate the need for additional performance monitoring wells for the following reasons:

- 1. Investigation of the Unit E plume upgradient of Maple Road has shown concentrations of 1,4-dioxane as high as 5,020 ppb (vertical profiling results from MW-96), and PLS has not demonstrated that concentrations above 2,800 ppb will never reach Maple Road.
- 2. We do not believe that any of the proposed or existing monitoring wells can establish that 1,4-dioxane greater than 2,800 ppb will not reach Maple Road.
- 3. The variability of the lithology and water quality data from borings and monitoring wells installed in the Maple Village Shopping Center (MVSC) makes it difficult to predict the ability of the interim response system to capture the plume of 1,4-dioxane greater than 2,800 ppb.

We agree that the installation of the borings and monitoring wells proposed by PLS, with a change to the placement of Location D, will be useful in determining the placement of downgradient performance monitoring wells. In addition, the proposed monitoring wells will help PLS anticipate the need to modify the interim response system if results indicate that concentrations of 1,4-dioxane above 2,800 ppb are approaching Maple Road.

Mr. Michael L. Caldwell

According to the December 21, 2006 letter, the monitoring well proposed for Location A is intended to help define the southern edge of the Unit E plume of 1,4-dioxane above 2,800 ppb. During a meeting on January 22, 2007, Mr. Fotouhi clarified that a monitoring well is planned at this location, and that if the results exceed 2,800 ppb, PLS would agree to install a monitoring well on the east side of Maple Road.

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According to the December 21, 2006 letter, the monitoring well proposed for Location B is intended to help define the northern edge of the Unit E plume of 1,4-dioxane above 2,800 ppb. PLS indicates that if results from that boring are greater than 2,800 ppb, additional borings will be done at Locations C and D. Mr. Fotouhi clarified that the purpose of Location D would be to verify that 1,4-dioxane above 2,800 ppb is not reaching Maple Road. We believe that a boring or monitoring well at PLS's proposed Location D would be influenced by the extraction from TW-19 to the south and the reinjection at IW-4 to the north, and would not be a reliable monitoring location. A more useful location would be farther west, along a line drawn between proposed Locations A and C.

We recommend that PLS proceed with installation of the proposed borings and monitoring wells in the MVSC, with the change to the placement of Location D, if determined to be necessary. These borings should be vertically profiled to bedrock and the boring information and vertical profiling results provided to us as they become available. PLS should consult with the DEQ prior to deciding on the placement and number of well screens at each location.

Upon completion of the MVSC monitoring wells, we will consider the need for any adjustment to the location of the performance monitoring wells specified in our December 8, 2006 letter. If the concentration of 1,4-dioxane at Location A or C is above 2,800 ppb, further investigation would be needed.

Alternatively, PLS may proceed with installation of the performance monitoring wells specified in our December 8, 2006 letter. In either case, downgradient performance monitoring wells must be installed this year to demonstrate compliance with the December 17, 2004 court order.

Please inform us of your intentions by March 8, 2007. Please contact me if you have any questions or would like to discuss this matter in more detail.

Sincerely,

Sybil Kolon
Environmental Quality Analyst
Gelman Sciences Project Coordinator
Remediation and Redevelopment Division
517-780-7937

## SK/KJ

cc: Ms. Celeste Gill, Department of Attorney General

Mr. Richard Mandle, DEQ

Mr. Mitchell Adelman, DEQ/Gelman File

Mr. James Coger, DEQ