



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
JACKSON DISTRICT OFFICE



DAN WYANT
DIRECTOR

June 19, 2014

VIA E-MAIL and U.S. MAIL

Mr. Farsad Fotouhi
Corporate Vice President
Environmental Engineering
Pall Life Sciences, Inc.
600 South Wagner Road
Ann Arbor, Michigan 48103-9019

Mr. Michael L. Caldwell
Zausmer, Kaufman, August & Caldwell, P.C.
31700 Middlebelt Road
Suite 150
Farmington Hills, Michigan 48334-2301

Dear Sirs:

SUBJECT: Gelman Sciences, Inc. Remedial Action
Little Lake Area System Submittal, April 1, 2014

The Department of Environmental Quality (DEQ) has completed its review of the Little Lake Area System Supplementation of Previous Notice of Termination of Extraction from the Ann Arbor Cleaning Supply Well, dated April 1, 2014 (LLA Submittal), from Pall Life Sciences, Inc. (PLS). Please see the enclosed Interoffice Communication from Mr. Jim Coger, dated June 16, 2014, for detailed comments on the LLA Submittal.

PLS submitted an abbreviated termination request in an email dated February 13, 2014. On February 25, 2014, Mr. Coger and I had a phone conference with Mr. Fotouhi and Mr. James Brode, PLS's consultant, to discuss the request. In that call, we provided informal input about additional information needed for the DEQ to respond to PLS's request. On March 5, 2014, Mr. Fotouhi informed the DEQ that PLS was withdrawing its February 13, 2014, request and would submit a new proposal in the near future, resulting in the LLA Submittal.

Additional monitoring will be required to meet the termination requirements provided for in the Consent Judgment (CJ), Section V.D.1.d. Upon review of the LLA Submittal, the DEQ also determined that additional information would be needed for our review after the termination requirements are met. These issues are addressed below.

General Comment

The previous LLA Submittal refers to PLS's April 29, 2011, Little Lake Area System Groundwater Monitoring Plan as containing the approved monitoring plan and Compliance Monitoring Wells. Please note that the April 29, 2011, submittal was approved with revisions by the DEQ in a letter dated July 28, 2011. The DEQ-approved Little Lake Area System Groundwater Monitoring Plan (LLAMP) was accepted by PLS and has generally been followed since it was approved. All future references to the LLAMP are to the DEQ-approved version.

Termination Criteria

PLS provided its interpretation of Section V.D.1.d. of the CJ and indicated it believes the termination criteria have been met. The DEQ does not agree.

According to PLS, the "associated monitoring wells" refers only to the compliance monitoring wells (CMW) in the LLAMP, which are: MW-51, MW-61s, MW-61d, MW-93, 4601 Park 4 inch and 4601 Park 6 inch. The DEQ does not believe this interpretation to be technically sound. The purpose of the CMWs is to monitor compliance with the non-expansion performance objective of the Little Lake Area. The fact that the CMWs indicate there is no expansion of groundwater contamination beyond the CMWs does not indicate there is no groundwater contamination remaining in the Little Lake Area, which is the standard for terminating extraction (unless land use restrictions are placed on any affected property(ies)).

While the term "associated monitoring wells", as used in Section V.D.1.d. of the CJ, is not defined, the DEQ's interpretation of that term is that it applies to all of the monitoring wells included in the LLAMP, as they are "associated" with the Little Lake Area System. Section V.D.1.d. of the CJ requires that no groundwater contamination be detected in "six consecutive monthly tests of samples from the extraction well and associated monitoring wells," before extraction can be terminated. Simply relying on six consecutive monthly tests from the CMWs is not sufficient.

PLS's suggestion that the DEQ's approval of the LLAMP was also the DEQ's approval of monitoring to determine if the termination criteria have been met is not correct. No such request was made in PLS's proposed LLAMP, dated April 29, 2011. In fact, PLS's proposed LLAMP provided "Purpose Designations" for "Compliance Monitoring" and "General Monitoring". The DEQ's conditional approval of the LLAMP did not state and was not intended to override the termination requirements of Section V.D.1.d. of the CJ.

Additional Information

The Little Lake Area is a specific area within the Gelman Site. The data associated with the LLA has been provided as part of monthly and quarterly submittals for the Gelman Site and is not readily accessible for DEQ review. That information was not provided in the LLA Submittal. Further, no information was provided about the batch purging that has been done since 2003. To evaluate a request for termination of extraction in the LLA System, the DEQ needs to review all of the data and information that is relevant to the request and PLS needs to provide that information with any future request for termination of extraction from the LLA System.

The last bullet on page 2 of the LLA Submittal states that data from the 4601 Park 4 inch and 6 inch wells has never exceeded 85 parts per billion (ppb) of 1,4-dioxane. This is also reflected in the summary table of data on page 3. This is not correct. PLS's Quarterly Report for the period June to August 1993, dated September 13, 1993 (Report), contains 1,4-dioxane data from a well at 4601 Park of 116 ppb from a sample collected on October 3, 1986. Additional results from 4601 Park through 1992 were included in the Report, but were not included in the LLA Submittal. This information is relevant to the LLA System and needs to be included in any future request for termination of extraction from the LLA System.

Section V.D.1.d. of the CJ requires PLS to continue active remediation until one of two conditions are met: 1) no groundwater contamination is detected in the extraction well and associated monitoring wells for six consecutive months; or 2) appropriate land use restrictions are placed on the affected properties. Any request to terminate extraction must document the condition that PLS believes it has met. For either condition, the following documentation must be provided to support the request to terminate extraction:

- A summary of the history of 1,4-dioxane contamination in the Little Lake area, including data from any other water supply wells formerly associated with the LLA System that were found to be contaminated;
- A summary of response actions, including a table with details on the dates and volumes of all purging events;
- All of the monitoring data relevant to the investigations and response actions that have been performed;
- Figures showing the extent of groundwater contamination over time.

Should you require further information, please contact me at 517-780-7937; kolons@michigan.gov; or the DEQ Jackson District Office, 301 East Louis Glick Highway, Jackson, Michigan 49201.

Sincerely,



Sybil Kolon
Senior Environmental Quality Analyst
Gelman Sciences Project Coordinator
Remediation and Redevelopment Division

SK/ja

Enclosure

cc: Ms. Celeste Gill, Department of Attorney General
Mr. Mitchell Adelman, DEQ/Gelman File
Mr. Jim Coger, DEQ