

October 4, 2006

Ms. Sybil Kolon
Environmental Quality Analyst
Department of Environmental Quality
Jackson State Office Building
301 E. Louis Glick Highway
Jackson, MI 49201-1556

Re: Operation & Maintenance Plan, January 2006
Mobile Ozone Treatment Unit, March 2006

Dear Ms. Kolon:

In response to your correspondence of August 23, 2006, Pall Life Sciences (PLS) provides the following response. For ease of review, your comments are shown in bold.

The O & M Plans are to be reviewed by PLS on an annual basis for revisions (refer to introduction in each Plan). The DEQ has taken 5 months to review and provide its comments on the Mobile Ozone Treatment Unit O & M Plan and 3 months to provide its second round of comments on the Extraction and Treatment Systems O & M Plan. It is obvious that changes will occur during this period of time. Those changes would normally be incorporated in the following year's updates. It serves no purpose to reiterate them in DEQ's comments.

General Comments:

...Mr. Fotouhi has indicated that the "emergency plans" for the Mobile Ozone Treatment Unit have been made available to the Ann Arbor and Washtenaw County HAZMAT units. It is not apparent what materials are included in the description of "emergency plans". PLS has not indicated that similar documents have also been provided to the Ann Arbor and Washtenaw County HAZMAT units for the Extraction and Treatment Systems. In the event of an emergency at either location, PLS personnel may not always be present and the relevant on-site O&M Plan may not be accessible. Therefore, in the interest of public safety, PLS must provide the entire Health & Safety Plan for both locations, including all attachments, to the Ann Arbor and Washtenaw County HAZMAT units, including all revisions required by this letter, as well as any subsequent revisions. Please provide documentation to this office by October 6, 2006 that this has been done...

Mobile Ozone Treatment Unit O&M Plan

Introduction

The text on page one states that IW-3 is north of TW-19 and IW-4 is south of TW-19. Figures and boring logs show them in the reverse locations. Please clarify the locations and provide corrected information for the O&M Plan. Injection well IW-5 has replaced IW-3; this information should be added to the O&M Plan.

PLS response: The word "north" following "(IW-3)" should be "south" in the introduction. This typo will be corrected in future editions. The map clarifies the locations and makes it obvious the word "north" was a typo.

The O & M Plan for the Mobile Ozone Treatment Unit was submitted to the MDEQ on March 3, 2006. IW-5 began operation in June 2006. Therefore, the March Plan did not include IW-5. Obviously, future versions will reflect this change.

Extraction Well

This section should be updated to include information on the new pump installed in March 2006. This section should also include information on the operation and maintenance of the extraction well, similar to what was provided with the Extraction and Treatment Systems O&M Plan.

PLS response: The O & M Plan (Plan) for the Mobile Ozone Treatment Unit was submitted to the MDEQ on March 3, 2006. The pump referenced was installed later that month. Therefore, the March Plan did not include this information. However, future versions will reflect this change.

Extraction well maintenance information will be added to future editions of the Plan.

Injection Wells

This section should include the operable range of flow rates and system pressures for normal operation, and should specify how it will be determined that rehabilitation needs to be scheduled. Language regarding rehabilitation procedures should reference appropriate regulations and standards.

PLS response: The normal operable ranges are as follows and will be included in future editions of the Plan:

System pressure: 1 to 50 psi. At 50psi, the operator must notify the Corporate VP of Environmental Engineering for consultation.

Flow rate: 1 to 200 gpm. The operator must notify the Corporate VP of Environmental Engineering prior to exceeding 200 gpm.

The Plan specifies how it will be determined that rehabilitation needs to be scheduled. Please review Section 2.2.

Shutdown Parameters

This section should state the current limits for reinjection of 1,4-dioxane (85 ppb) and bromate (10 ppb). If these limits change, this section can be updated.

The O&M Plan indicates that if an exceedance is detected, the system will shut down and the operator will diagnose and repair or adjust the system before re-starting. This groundwater discharge is regulated under the authority of Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) and the Part 31 Administrative Rules. Specifically, Rule 323.2227(2)(a) provides for the DEQ to require additional monitoring if a discharge limit is exceeded.

Mr. Fotouhi has informed us that turn-around time for analysis is 24 hours during normal operations. Mr. Fotouhi also indicated that the operator is notified if the system is not operating within established parameters, in which case a sample is collected and the results reported within 45 minutes. Because there is no holding capacity for the treated effluent to ensure the treatment system is meeting the limits when it is turned back on, a more intensive sampling schedule, with a quick turn-around time, should be followed after resumption of the discharge. Please provide a more intensive sampling procedure in the O&M Plan to be used in the event that any of the discharge limits are exceeded. Depending on the circumstances of the exceedance, the DEQ may require that additional actions be taken.

PLS response: The limits for reinjection will be listed in future editions of the Plan.

If an exceedance occurs, the operator will evaluate the system and adjust the operation back to its normal condition. Proper calibration will be confirmed by an effluent sample collected shortly after the change on the system. The lab provides the result within 45 minutes after the system is back in normal operation. PLS does not believe more intensive sampling is governed.

Operation

A leak detection procedure must be added to this section.

PLS response: The flow extracted from TW-19 is measured against the flow received at the Mobile Treatment Unit on a continuous basis. A 5-gpm flow differential will result in operator notification. The effluent water carried from Mobile Unit to the injection wells is treated water. No detection procedures are necessary for the treated water.

Performance Monitoring

Our comments on performance monitoring will be included in response to PLS' Feb 3, 2006 Performance Monitoring Plan for the Maple Road Interim Response and the July 17, 2006 Performance Review, Maple Road Interim Response.

PLS response: That is fine.

Treatment System Sampling

This section should be revised to indicate that the DEQ will be notified prior to any reduction in sampling frequency.

PLS response: This will be noted in future editions.

Laboratory

This section should specify a minimum turn-around time for analyzing the samples (no more than 24 hours) under routine conditions and should require reporting sample results to the operator immediately upon determining the exceedance of 1,4-dioxane (85 ppb) or bromate (10 ppb) has occurred. After an exceedance is identified, a 45 minute turn-around time should be specified for subsequent samples until compliance with the effluent limits is confirmed. The discharge limits should be included in this section. If these limits change, this section can be updated.


PLS response: As always, PLS will attempt to analyze groundwater samples in an expedited time frame. PLS is not aware of any State or Federal law requiring a party to analysis samples on a 24-hour turn-around basis. If such a requirement exists, PLS would like a reference to such requirement. Also, please provide a list of companies in Michigan that are required to analysis their discharge samples in a 24-hour time frame. PLS will expedite analytical results in a fast turn-around time, but will not accept making it mandatory.

Health & Safety Plan

The Health & Safety Plan (H&S Plan) does not indicate that there is secondary containment for hydrogen peroxide, as Mr. Fotouhi informed us by electronic mail dated March 9, 2006. This information, as well as other items covered in that note that are not in the H&S Plan (such as activation of 911 if a spill is not immediately controlled by on-site personnel), should be added to the H&S Plan. This section should be revised to indicate that the DEQ will be notified if there is a release of a reportable quantity of a hazardous substance.

PLS response: This information will be noted in future editions of the Plan, even though you have stated in your e-mail of 3/7/06 that DEQ does not regulate the storage of hydrogen peroxide in these circumstances.

Sincerely,



Farsad Fotouhi
Corporate Vice President
Environmental Engineering

cc: Ms. Debora Snell
Mr. Robert Reichel, MDAG
Alan Wasserman, Esq.
Michael Caldwell, Esq.