

FMC Corporation

Via Email

May 7, 2010

Carla Fisher
U.S. EPA Region 10
Ste 900, MS AWT-121
1200 Sixth Avenue
Seattle, WA 98101

Re: FMC Pocatello Plant Site - RCRA ID #IDD070929518
Pond 15S & updates from EPA-FMC April 27, 2010 meeting

Dear Ms. Fisher:

This letter provides you with some updated information concerning gas extraction and treatment at Pond 15S to follow up on discussions during our April 27, 2010 meeting. Specifically:

1. Attached is a graph of calculated concentrations of gas being extracted from the Pond 15S gas extraction piping system from the start of extraction on April 16, 2010 through Thursday, May 6, 2010. When we met last week, I had indicated that the concentration of extracted gas was averaging about 50,000 ppm phosphine (PH₃) at that time. You will note that this week, the average is significantly lower. Two tables with operating data from the two gas extraction and Calgon Ventsorb (55-gallon drum size) carbon treatment systems are also attached, updating the data provided to you on April 26, which included data through April 23rd.
2. Attached is a map showing the location of all the LCDRS and cap drainage manholes/sumps associated with the RCRA Ponds and the results of a PH₃ survey conducted on Friday, April 30, 2010. These sumps include Leachate Collection Detection Removal System (LCDRS) manholes as well as Cap Drainage lift stations. All sumps were surveyed with a Draeger PH₃ monitor. A reading was taken around the outside of the sump before the sump was opened, and then a second reading taken as close to the bottom of the sump, or top of standing water, as possible. There were no PH₃ readings found in any of the sumps except the two Pond 15S cap drainage lift stations. The PH₃ reading around/against the top manhole section joint on the outside of Pond 15S lift station 1 (LS-01) on the west side of the pond averaged 300 ppm and that lift station lid was not opened to take the second reading. Pond 15S LS-02 (east

side of the pond) had no measured PH₃ outside of the manhole and read 0.39 ppm PH₃ at the bottom of the sump. Several photos taken during the survey are attached for your reference depicting typical LCDRS sumps and cap drainage lift stations. All LCDRS are similar except 18A (picture is also attached).

3. Attached is a file with the historic results of the industrial hygiene (IH) surveys at TMP enclosures for all Ponds. FMC had previously provided EPA with similar data for all ponds in late 2007, and in a response to your April 19th email concerning Pond 15S, had provided the more recent information for that pond on April 25, 2010. So as to be complete, FMC is providing that historical information for all the RCRA ponds. Also, FMC has directed its operation and maintenance (O&M) contractors to include a quarterly survey of these sumps with the quarterly TMP survey going forward. FMC notes that while we are providing the IH data for your reference, please note that historically EPA has not requested nor reviewed IH data for FMC employees and/or its contractors. Even during the period when the FMC Pond Management Plan (developed pursuant to the RCRA Consent Decree when the ponds were in operation) and when FMC had filed a CERCLA Continuous Release Report pursuant to 40 CFR 302.8 of 44-163 lbs/day of PH₃ air releases from the facility, the EPA approved Pond Management Plan (and subsequent revisions) did not require submittal of IH monitoring data.
4. As we discussed on April 27th, FMC is in the process of constructing two additional Calgon Ventsorb (55-gallon drum size) gas extraction and treatment system (GES) units for deployment at Pond 15S. All equipment has been received except the blowers. While contractors have had some frustrating conversations with the manufacturer, we have been advised that two blowers were shipped yesterday and our plan is to use a spare blower to complete assembly of Unit #3 and we would anticipate it being deployed early next week. When the new blowers are received, the spare will be re-stocked and assembly of Unit #4 completed. This could be as early as late next week, but dependent on delivery from the blower manufacturer.
5. In assembling information to reply to questions in your April 19th email, FMC became aware that one of our O&M contractors was acquiring and recording industrial hygiene area PH₃ monitoring data beyond the requirements of the FMC RCRA Pond Work Rules and independent of the need for maintenance work in the area. This sampling is continuing and an updated table is attached. After receipt and review of this data, FMC has endeavored to better understand conditions at Pond 15S LS-01 which could be contributing to the transient elevated measurements. In the course of this review, it has been noted that LS-01 extends approximately 4 feet above the ground surface on the northwest corner of Pond 15S. The concrete section at the top of the manhole (top section) is 2 feet in height, resulting in a joint between the concrete sections that is above grade. [Note this joint is referred to in Item 2 above and is the location where an average of 300 ppm of PH₃ was found during the survey on 4/30/2010.] This joint was not designed to be air tight. Review of the

situation has resulted in a working theory that windy conditions may be resulting in a vacuum being formed on the downwind side of the manhole (similar to wing phenomena) and thus creating negative pressure which is pulling gas out of the manhole and potentially from the cap drainage piping that enters the manhole. This working theory is consistent with the anecdotal observation that measured PH3 concentrations outside the manhole tend to be higher on windy days. While just a theory, soil was piled around the manhole yesterday (May 6) to a height to cover the top manhole joint. This soil is intended to serve as a wind block and prevent the formation of the vacuum (if in fact it is occurring). Further, this should reduce the amount of potential air leakage from the joint. A photograph is attached. We will work with the O&M contractor to ascertain if this is having an effect on working conditions in the area. However, FMC remains confident that the most expedient way to address the overall PH3 situation at Pond 15S is through continued extraction and treatment of pond gas from the perimeter piping.

We will continue to keep you advised. If you have any questions, please contact me at 215/299-6700.

Sincerely,



Barbara E. Ritchie
Associate Director, Environment
FMC Corporation

Enclosures

cc: Greg Weigel – EPA Boise
Bernie Zavala – EPA Seattle
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