

November 15, 2017

Mr. Gregory D. Martin, P.G.
Roux Associates
402 Heron Drive
Logan Township, NJ 08085

Re: Bishop Tube Site
Stream Discharge
Dear Mr. Martin:

The Pennsylvania Department of Environmental Protection (“DEP”) received your September 8, 2017 letter responding to our August 28, 2017 letter, which requested additional investigation of the groundwater to surface water pathway at the Bishop Tube Site (“Site”). In the September 8 letter, Roux, on behalf of Johnson Matthey, Inc. and Whittaker Corporation (“JMI/W”), declined to assess the piping network, which sampling data indicates is acting as an open pathway for groundwater to enter Little Valley Creek at the Site.

The property owner Constitution Driver Partners, LLP. has taken action to mitigate the direct discharge to Little Valley Creek by cutting and plugging the leaking pipe with a temporary seal. While CDP’s interim actions appear to have resolved the unpermitted discharge from the deteriorated pipe, information gathered while the release was occurring led DEP to request further assessment of Site impacts to surface water in letters dated August 10 and 28, 2017. This letter is intended to clarify and provide further direction regarding DEP’s request.

Review of the historic monitoring well analytical data presented in the Phase III – Supplemental Groundwater Investigation Report (Baker, 2004), and, in particular, in Monitoring Well 4, which was drilled adjacent to the pit/impoundment area near Plant # 8, indicates that groundwater in the area between the former production areas (i.e., Plant #5 and Plant #8) contained dissolved concentrations of total chromium and nickel exceeding their respective Act 2 statewide health standards. Additionally, fluoride, dissolved aluminum and dissolved iron exceeded their respective statewide health standards as secondary contaminants. In the samples collected from the pipe discharge in May 2017, aluminum, nickel and chromium were also detected above Act 2 statewide health standards. These results and observations of flow rates during rainy and dry periods suggest that the water leaking from the corroded sewer pipe into Little Valley Creek is Site groundwater. Additionally, a corrugated metal pipe adjacent to the leaking pipe also continues to discharge water, even after extended periods of dry weather, indicating that this storm sewer pipe is also discharging groundwater directly to Little Valley Creek. In the Supplemental Remedial Investigation (RI) Report you will need to address all contaminants of concern including the inorganic contaminants described above, not just chlorinated volatile organic compounds.

Under Paragraph 5 of the 2008 Amended Consent Order and Agreement (“ACOA”), JMI/W agreed to prepare a final report (RI Report) that *will* characterize, among other things, the groundwater to surface water pathway. ACOA, Paragraph 5(b) (emphasis added). Based on the recent surface water data, the DEP has determined that the piping described above is a groundwater to surface water pathway that results in groundwater contamination to Little Valley Creek.

In order to evaluate the groundwater to surface water pathway, Roux should evaluate stream conditions to determine if all discharges of Site groundwater to Little Valley Creek, including both point-source (i.e., pipes, seeps, etc.) and non-point-source (i.e., diffuse discharges), are resulting in the degradation of the surface water quality. In order to properly evaluate surface water quality parameters, it will be necessary to analyze the surface water for the Target Quantification Levels (QLs) that are described in **Attachment C** of the NPDES permit application instructions (attached) when testing for pollutants. If the Target QLs are not utilized DEP may request additional sampling or assume that the pollutant is present.

Additionally, as noted in our August 10, 2017 letter, it appears that sediments may have been impacted as a result of the long-term groundwater discharge. In accordance with the ACOA, which requires JMI/W to, among other things, evaluate where contaminated groundwater may be entering ‘Little Valley Creek or other surface water *features*,’ the RI Report should include stream sediment as a receptor in accordance with 25 Pa. Code § 250.402(c), and the FS Report should assess potential remedial action alternatives that would satisfy the cleanup standards of HSCA.

In addition to addressing the surface water pathway, as described above, please begin preparations for completing the additional indoor air sampling outlined in Roux’s May 31, 2017 Supplemental RIWP and Response to DEP Comments on Vapor Intrusion. Completion of the work during the coming winter will facilitate inclusion of the results in the Supplemental RI Report.

DEP is aware that because of delays associated with gaining access for the sentinel well installation, the final Supplemental RI Report submission has also been delayed. We anticipate that all of the tasks identified in this letter will be initiated in the coming months and timely completion of the work will facilitate the submission of a Supplemental RI Report and completion of RI obligations.

If you have any questions, please feel free to contact Dustin A. Armstrong at darmstrong@pa.gov or by phone at 484.250.5723.

Sincerely,



Dustin A. Armstrong
Environmental Protection Specialist
Environmental Cleanup and Brownfields



Richard Staron, P.G.
Licensed Professional Geologist
Environmental Cleanup and Brownfields

Enclosure

cc: Mr. Patterson
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