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Alexander B. Grannis
Commissioner

MEMORANDUM

TO: Denise Radtke, Chief, Engineering Geology Section

FROM: Alex Czuhanich, Engineering Geologist

SUBJECT: Olin Chemicals, Buffalo Ave. Facility, Niagara Falls, New York
EPA ID No. NYD002123461
RCRA Facility Operation and Maintenance
Groundwater Monitoring/Corrective Action Inspection Report

DATE: June 2, 2008

Inspection Date: May 21, 2008

Personnel: Gina Senia and Mike Sebring (Olin)
Dave Tyran and Sean Gardner (Conestoga-Rovers & Associates, consultant)
Alex Czuhanich (NYSDEC)

Olin Chemicals' Buffalo Avenue facility operates a remedial program under Consent Order #R9-4171-94-08. This memo documents the findings of an inspection of the operation and maintenance of that remedial program.

Report of Field Activities

Groundwater Monitoring

I arrived on site at approximately 9:00 am on the day of the inspection. Field personnel from Conestoga-Rovers & Associates (CRA) were temporarily off site so Olin representatives accompanied me on a tour of the facility's groundwater treatment plant and an inspection of the monitoring well and extraction well network (see discussions in subsequent sections below).

Upon their return, CRA personnel set up purging and sampling equipment on monitoring wells PN-15A and PN-15B. CRA measured depth to water with an electronic water-level meter and then used low-flow techniques to purge both wells until field parameters stabilized. A Horiba Water Quality Monitor with in-line flow cell was used to measure field parameters including pH,

temperature, conductivity, turbidity, oxidation-reduction potential, and dissolved oxygen. Both wells stabilized fairly quickly and samples were collected by disconnecting the discharge tube from the in-line cell and redirecting flow to the sample containers [Figure 1]. Well purging and sampling protocols were satisfactory.

Monitoring Wells

Several maintenance issues were noted regarding monitoring wells. First, a number of wells located along Gill Creek (e.g., PR-6 and PR-13, among others) had well covers that were missing bolts and were thus not properly secured. Second, several wells lacked legible identification labels. And third, two piezometers had their tops sheared off and were effectively open conduits from the surface to the aquifer. Both of these damaged piezometers were unlabeled but one is located next to well PR-8 and is believed to be PN-6A [Figure 2]. The second is located next to well PR-9 and is believed to be PN-7A.

Other aspects of well maintenance were satisfactory. Concrete aprons were in good repair, inner and outer casing materials were in good condition, and inner casings were securely capped.

Groundwater Treatment Facility

Following an exceedance of contaminant loading in their permitted sewer discharges, Olin installed a new carbon polisher [Figure 3] to their groundwater treatment system to prevent a recurrence. Mr. Sebring discussed operation of the polisher and I inspected the daily log sheet for operation of the treatment system. The daily log was up-to-date and complete.

Asphalt Paving

Olin maintains asphalt paving over most of the site to prevent erosion and fugitive dust emission. During the site tour and inspection most of the area of Plant 2 was covered on foot. A visual inspection was made of the paving materials and the pavement was found to be well maintained and in overall good condition.

Conclusions and Recommendations

As indicated above, several maintenance problems were noted for monitoring wells and piezometers. The following recommendations are provided to address these issues:

1. All the monitoring wells and piezometers in the remedial program should be inspected to ensure they are properly secured. Missing cap bolts, damaged caps, etc. should be replaced or repaired as needed.

2. All wells and piezometers should have permanent, legible identification labels. A stamped or engraved dog tag affixed to the well cap or an ID number engraved or written with a weld bead on the cap are effective, permanent labels.

3. Temporary plugs should be installed as soon as possible to prevent contaminant infiltration in the two sheared off piezometers until more permanent repairs can be implemented [Note: an email regarding this issue was sent to Mike Bellotti, Olin's project manager for this site, so that the piezometers could be plugged in a timely manner].

The remaining aspects of the remedial program were satisfactory. Well sampling protocols were thorough and effective, the groundwater treatment facility operates effectively and is regularly monitored, and soil capping materials are adequately maintained to prevent exposure to contaminated soils. Overall, and with implementation of the recommendations above, the remedial program at this facility is being adequately operated and maintained for protection of human health and the environment.

Attachment (Figures)

cc: J. Strickland, Region 9

Figure 1

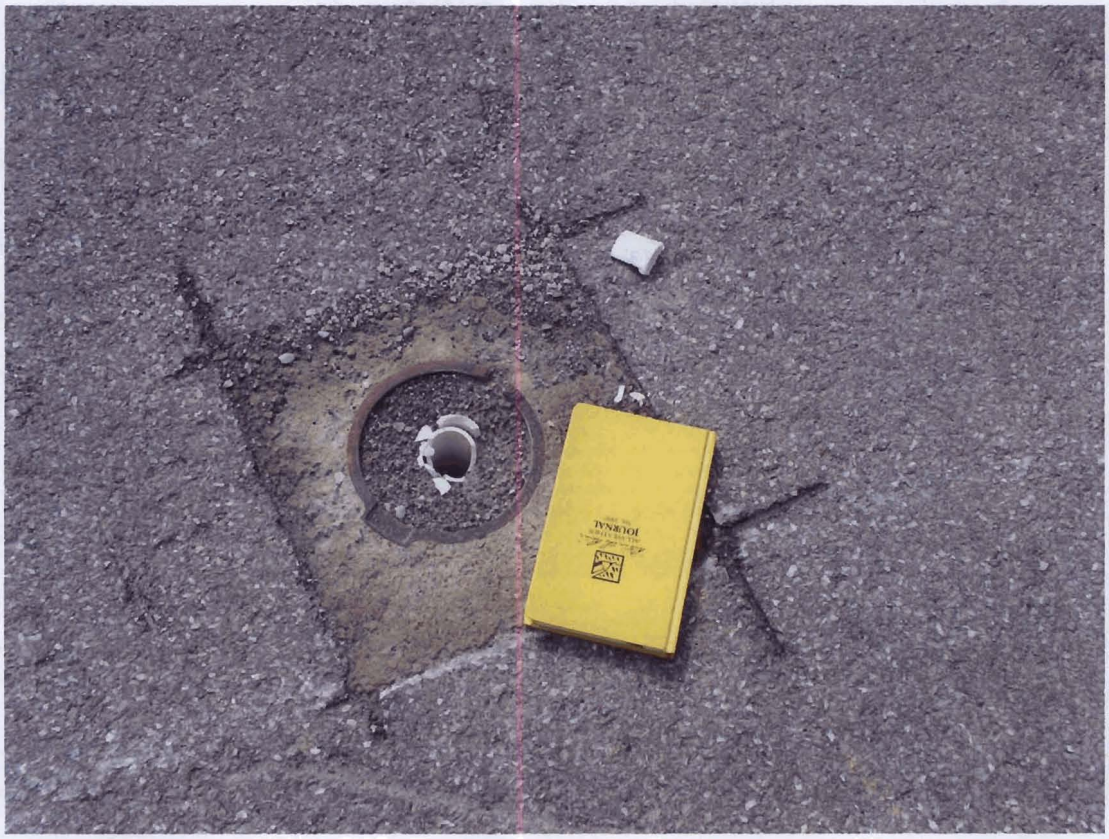

Figure 2

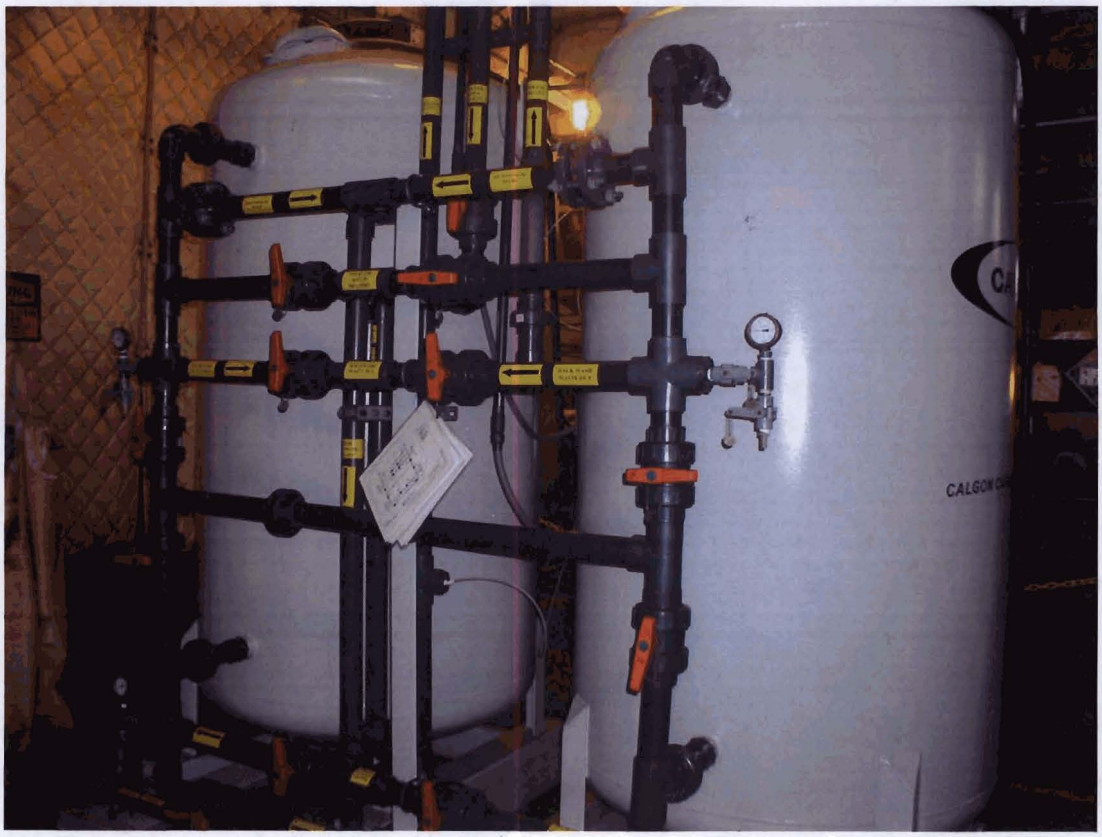

Figure 3