



P.O. BOX 248, 1186 LOWER RIVER ROAD, NW, CHARLESTON, TN 37310-0248
(423) 336-4000 FAX (423) 336-4183

January 29, 1998

Mr. William Wertz
New York State Dept. of Environmental Conservation
Division of Solid Waste Management
50 Wolf Road
Albany, New York 12233

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re: **Quarterly Report Olin Chemicals
Buffalo Ave. Facility, Niagara Falls, NY**

BUR. OF HAZARDOUS
COMPLIANCE & LAND MGT.
DIVISION OF SOLID &
HAZARDOUS MATERIAL

Dear Mr. Wertz:

This is to submit the initial Quarterly report, as required by Olin's Administrative Order on Consent (AOC) for our Niagara Falls Plant, (Index #R9-4171-94-08, Site Registry #9-32-051A, and B). The timeframe for this report covers the period from remedial construction through December 31, 1997.

Remedial Construction

- Construction was completed and the system was put online in October, 1997.
- As-built system documentation is hereby submitted in **Attachment 1**.
- This construction included installation of the extraction system (pumping wells and groundwater conveyance), the treatment system (air stripper) and the soil management system (surface paving).

Hydraulic testing

- Hydraulic testing was completed in December, 1997.
- During that testing, initial operating parameters were determined, including the pumping rates for each of the five recovery wells.
- Pumping wells have been set at the rates that have been determined optimum for capture.
- The hydraulic testing report is included in **Attachment 2**.

Action item: Pumps in two of the pumping wells (RW-1 and RW-2) experienced clogging and inefficient operation. Trouble shooting determined that the clogging was due to chemical precipitation resulting from elevated pH levels in groundwater at that area. Several options were evaluated, including *in situ* pH adjustment and using a different type of pump. Different pumps were deemed to be the best solution, since they would require less maintenance and would not

necessitate system hardware and operation changes, as would be necessary with *in situ* pH adjustment. Replacement pumps were evaluated and surface mounted peristaltic pumps were selected to replace down-hole electric pumps. The replacement pumps will be installed only in wells RW-1 and RW-2. The replacement pumps have been ordered and will be installed in the next few weeks. Meanwhile, the original pumps in wells RW-1 and RW-2 will continue to operate, albeit at rates that are below optimum.

Performance monitoring

- Performance monitoring will commence in 1998, per requirements of the Remedial Plan.
- Hydraulic capture, as initially measured during the hydraulic testing phase, will be monitored on a monthly basis, using Gill monitor wells plus Creek stage. Groundwater quality will be monitored semiannually.
- The hydraulic testing phase of capture evaluation showed that the start-up pump rates provide capture in the B-zone (**Attachment 2**).
- Capture in the A-zone is being achieved within most of the A zone, but has not fully complete in small areas between the Recovery wells and Gill Creek. While all piezometers in this area show some pumping-induced drawdown, several.

Action item: We will continue to monitor A-zone capture via the monthly piezometric measurements. Continued pumping might result in more complete A-zone capture as the hydraulic system approaches equilibrium. If this does not occur, we will evaluate changes in pumping rates.

Other issues:

Olin will monitor all wells, as listed in the project Remedial Plan. Olin has requested access to DuPont well clusters 20 and 22 and is awaiting permission to monitor and sample these wells. However, all other wells will be monitored by quarterly piezometric measurements and semiannual sampling.

Community notification of completion of the remedial construction, and of the system start-up was accomplished via the Olin plant newsletter. The article (page 5) is included as **Attachment 3**.

Please direct any questions or comments to me at 423/336-4587.

Sincerely,



Michael J. Bellotti

OLIN CORPORATION

Stanley Radon - NYSDEC Buffalo
Kelly McIntosh: Conestoga-Rovers & Associates: Niagara Falls, NY
Jim Strassburg - Olin: Niagara Falls, NY

cc: w/o attachments

Annette Sansone, Esq.: NYSDEC: Buffalo, NY
Dale Carpenter: USEPA: Region II, New York, NY
Jim Frye - Olin: Charleston, TN
Jim Brown - Olin: Charleston, TN
Vickie Ray - Olin: Charleston, TN
Laura Tew - Olin: Charleston, TN
Monica L. Fries Esq.- Husch & Eppenberger: St. Louis, MO
Rick Marotte: Law Engineering: Kennesaw, GA