Olin CHEMICALS
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February 7, 1992

Anne E. Kelly (2AWM-HWC)
Hazardous Waste Compliance
United States Environmental Protection Agency
Region II
26 Federal Plaza
New York, New York 10278

Re: Quarterly Report
Olin Corporation
Niagara Falls, NY, Plantsite
RCRA Facility Investigation

Dear Ms. Kelly:

Pursuant to paragraph V.A. and Task V. of Attachment A of the Administrative Order, the Quarterly Report for the Niagara Falls RCRA Facility Investigation (RFI) is herewith submitted. We are including the Interim Report with this Quarterly Report. It serves as a compilation of all data collected to date as well as meeting the Work Plan objectives set out for the Interim Report.

Please call (615-336-4308) if you have any questions about this report or any of the work under the RFI.

Sincerely,

OLIN CORPORATION

J. C. Brown
Manager, Environmental Technology

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Attachment

cc: P. Counterman (2)
S. J. D'Angelo
J. W. Humphries
W. G. McGlasson
K. R. McIntosh
G. C. Meyer
S. F. Radon
A. D. Rheingold
Permits Admin. Branch - EPA

Quarterly Report
Olin Corporation
Niagara Falls, New York
RCRA Facility Investigation

Report for:
November and December 1991, and January 1992

This Quarterly Report is submitted pursuant to paragraph V.A. and Task V. of Attachment A of the Administrative Order on Consent (RCRA-89-3013-0208) between the U. S. Environmental Protection Agency (EPA) and Olin Corporation. This report describes the progress, status, and plans for the RCRA Facility Investigation (RFI) being conducted under the Order at Olin Corporation's Niagara Falls, NY, plant.

RFI Status

A description and estimate of the percentage complete of the individual tasks under the RFI are presented in Attachment A. Overall, the RFI is approximately 60% complete.

Findings

The findings to date are:

- water bearing zones in the bedrock correspond to the zones established for the Du Pont plant site study (A, B, C, and CD zones);
- the Olin production wells (OPW), pumping at 600 gpm, create a zone of influence that extends approximately halfway (east-west) across Olin's Plant 2 in the B zone, and approximately to Gill Creek in the C and CD zones;
- well cluster 8 on Olin's Plant 1 appears to exhibit residual drawdown from downward movement of water into the C and CD zones;
- there is little significant groundwater in the overburden and contaminant migration is preferentially downward into bedrock;
- Overburden is thin (5 to 10 feet thick typically) at most points throughout the site;
- a bedrock "high" is present in the area of the former "mercury pond" SWMU;
- gradients are relatively flat in the bedrock fracture zones when the production wells are not pumping (wells pump 600 gpm continuously);
- dense non-aqueous phase liquid (NAPL) was found in well OBA-2C and consisted primarily of trichloroethene and tetrachloroethene, with other components present at lower concentrations;
- elemental mercury was observed in a split-spoon soil sample taken at the 6 to 8 foot depth near SWMU LA-3 (note that this is a correction to the information we gave you on November 14: we said near 6 feet deep then, but after further review, Woodward-Clyde determined that it was actually about 7 feet deep);
- A zone (overburden) groundwater that moves laterally will discharge to Gill Creek to the east or sewer routings in other directions, although most migration is expected to be downward into rock;

Findings (continued):

- most overburden consists of fill; and
- B and C zone heads are lower than the elevation of the Gill Creek water surface.

Recommendations and conclusions from the Interim Report include:

- additional wells are necessary to fill data gaps in the hydraulic profile of the site;
- manmade passageways do not represent a significant potential for enhancing offsite contaminant migration; and
- site soils are contaminated as the result of almost 100 years of plant operations and additional sampling will not refine the present knowledge about specific SWMUs.

Changes to RFI

EPA/DEC agreed that the results of the first two groundwater samplings would be used to refine the Project Analyte List (PAL). The Interim Report recommends certain additional work. This work will be implemented after EPA/DEC approval. Impacts on project schedule will be addressed based on EPA/DEC review and approval.

Problems During the Reporting Period

There were no problems during the reporting period.

Release Incidents

There were no release incidents during the reporting period.

Actions to Rectify Problems

There were no problems during the reporting period.

Changes in Personnel

There were no changes in personnel during the reporting period.

Projected Work for Next Reporting Period

The following work is planned for the next three-month reporting period:

- the second quarterly groundwater sampling will be conducted March 2 to March 17, 1992;
- changes agreed to with EPA resulting from their review of the Interim Report will be planned and implementation initiated;
- the second quarterly groundwater samples will be analyzed;
- the analytical results from above will be used in conjunction with previous data to refine the Project Analyte List; and
- data evaluation and refinement of the manmade passageways review will continue.

Attachment A

Quarterly Report
Olin Corporation
Niagara Falls, New York
RCRA Facility Investigation

Report for:
November and December 1991, and January 1992

Task	Date	% Comp.	Comments
Hydraulic testing	3/25/91	100	Pump test of OPW and continuous head measurements of selected wells
Well sampling (1st rnd.)	10/7/91	100	NAPL noted in OBA-2C
Analysis of 1st rnd. GW		100	
Soil sampling	10/18/91	100	Elemental Hg noted in LA-3 area
Analysis of soil samples		100	
Hydraulic head monitoring	10/7/91	100	Monthly measurement stopped 10/91. Future measurements will be quarterly during well sampling
Evaluation of 1st rnd. GW, soil, and hydraulic data	1/24/92	100	
Identification of passageways	12/21/92	100	
Preparation of Interim Report	2/4/92	100	
Start well sampling (2nd rnd.)	3/2/92	0	Planned
Analysis of 2nd rnd. GW		0	
Start well sampling (3rd rnd.)		0	
Analysis of 3rd rnd. GW		0	
Evaluation of passageways		40	
Start well sampling (4th rnd.)		0	
Analysis of 4th rnd. GW		0	
Evaluation of all data		25	
Submit draft RFI report		0	