Olin CHEMICALS
P.O. BOX 248, LOWER RIVER ROAD, CHARLESTON, TN 37310
PHONE: (615) 336-4000

November 18, 1991

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.

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:
August, September, and October, 1991

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 of the individual tasks under the RFI are presented in Attachment A. Overall, the RFI is approximately 40% complete.

Findings

Most of the initial field work was completed during this reporting period. The hydraulic testing and monthly hydraulic head monitoring had been completed previously based on the August 9, 1990, approval to proceed with that portion of the Work Plan. 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;

Findings (continued):

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

Changes to RFI

The remainder of the Work Plan was approved August 9, 1991, including Addendum I which provided for an expanded soil sampling program and added an assessment of the adequacy of the soil sampling to the Interim Report. Field work began September 9. Due to the time between the installation of the wells and the schedule for the first sampling, the wells were re-developed to insure that samples were representative of groundwater. Hydraulic head measurements of all 24 wells were made over a 23 month period instead of the 12 months called for in the Work Plan.

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:

- validation of data from first round well sampling and the soil sampling program;
- evaluation of the data from above;
- identification of manmade passageways on the site;
- evaluation of the hydraulic testing data in light of regional data and analytical results;
- second quarterly sampling of well; and
- preparation of the Interim Report.

Attachment A

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

Report for:
August, September, and October, 1991

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		95	Data received early November
Soil sampling	10/18/91	100	Elemental Hg noted in LA-3 area
Analysis of soil samples		85	Data expected early November
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		30	
Identification of passageways		30	
Preparation of Interim Report		10	
Well sampling (2nd rnd.)		0	
Analysis of 2nd rnd. GW		0	
Well sampling (3rd rnd.)		0	
Analysis of 3rd rnd. GW		0	
Evaluation of passageways		0	
Well sampling (4th rnd.)		0	
Analysis of 4th rnd. GW		0	
Evaluation of all data		5	
Submit draft RFI report		0	