

II. HYDE PARK DUMP

The Hyde Park Dump (Bloody Run) is currently owned by Hooker Chemical and Plastics Corporation and was operated by Hooker from approximately 1953 to August 1975. The Hyde Park Dump is located within the Town of Niagara near its border with the Town of Lewiston. The approximate location of the site is depicted in Figure 1 and Plates 1 through 3. There are discrepancies regarding the exact size of the site which in three recent documents is respectively reported to be approximately 15 acres, approximately 1750' X 600' or about 18 acres, and 25 acres.⁽¹⁾ The site drains to Bloody Run Creek, a small tributary to the Niagara River.

The landfill was purchased by Hooker in 1953 and zoned as a permitted site for storage of waste materials in August 1953.⁽²⁾ A copy of the permit is included as Attachment 2. The permit has conditions for continued use, including these key points:

- . No waste material stored within twenty (20) feet of any property line;
- . No waste material is to be deposited on the earth's surface at the present grade level;
- . The layer of earth is not to exceed ten (10) feet in height above the present grade level of the land so used or occupied.

According to a recent internal Hooker document, "it is possible that existing conditions are not in compliance with these conditions."⁽³⁾ A comparison of permit requirements and site conditions is indicative of violations.

ATTACHMENT 2

1953 PERMIT ISSUED TO HOOKER FOR THE HYDE PARK LANDFILL

KNOW ALL MEN BY THESE PRESENTS:

That the Town Clerk of the Town of Niagara under and by virtue of Article IX, Section 6, of the Zoning Ordinance of the Town of Niagara, as amended, and pursuant to and in accordance with resolution of the Town Board of the Town of Niagara duly adopted at a regular meeting of said Board duly and regularly held at the Town Hall in said Town of Niagara on the 11th day of August 1953 has granted and does hereby grant to Hooker Electrochemical Company, a corporation of the State of New York having its principal office at the City of Niagara Falls, New York, its successors and assigns, permission to store waste materials in an area described as follows:

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Niagara, County of Niagara and State of New York being part of Lot 30 of the Mile Reserve and bounded and described as follows:

BEGINNING at a point in the north line of Lot 30 of the Mile Reserve six hundred five and sixty-seven hundredths (605.67) feet east from the intersection of the north line of Lot 30 with the center line of Hyde Park Blvd.; thence westerly along the north line of said Lot 30 seventeen hundred fifty-four and sixty-nine hundredths (1754.69) feet to the northeast corner of lands conveyed to Whitlock-Cordage Company by deed recorded in Niagara County Clerk's Office in Liber 45 of Deeds at Page 261; thence southerly along the east line of said land conveyed to Whitlock-Cordage Company six hundred nineteen and seventy-six hundredths (619.76) feet to the northeast corner of land conveyed to National Lead Company by deed recorded in Niagara County Clerk's Office in Liber 932 of Deeds at Page 515; thence westerly parallel with the south line of said Lot 30 and along the north line of said last mentioned land conveyed to National Lead Company and continuing along the north line of land conveyed to the Titanium Alloy Manufacturing Company seventeen hundred fifty-four and seventy hundredths (1754.70) feet to a point in a line drawn southerly from the point of beginning parallel with the east line of the aforementioned land conveyed to Whitlock-Cordage Company; thence northerly parallel with said east line of land conveyed to the Whitlock-Cordage Company six hundred twenty-one and forty-eight

hundredths (621.48) feet to the point of beginning. CONTAINING twenty-five (25) acres of land,

upon the following conditions, limitations and restrictions:

1. No waste material shall be stored within twenty (20) feet of any property line.
2. No waste material shall be deposited on the earth's surface at the present grade level.
3. All waste material shall be deposited in an excavation or excavations and within fifteen (15) days after such deposit shall be covered with a layer of earth fill not less than six (6) inches in thickness, regardless of the height to which the fill or fills eventually will be made.
4. The layer of earth shall at no time exceed ten (10) feet in height above the present grade level of the land so used or occupied.
5. The grantee shall pay to the Town Clerk at the time of granting the permit a fee of Fifty Dollars (\$50.00).
6. The said permit shall remain in force and in effect as long as the grantee shall faithfully perform and abide by the conditions, limitations and restrictions herein set forth. Should the grantee default in keeping any covenant or condition herein to be kept or performed by it, the Town shall be entitled to forthwith cancel the right and privilege hereby granted upon the finding of any court of competent jurisdiction that such default has been made, or the Town may resort to any other legal remedy afforded to it in the premises.

IN WITNESS WHEREOF, I have hereunto affixed my signature and the seal of the Town of Niagara this 11 day of August 1953.

(SEAL)

Edith B. Davis
Town Clerk
Town of Niagara

The site was used for the land disposal of organic chemical waste produced by Hooker's Specialty Chemical Division from the manufacture of pesticides and other organic chemicals. A recent Hooker document states:

"The site was used starting approximately in 1953 as an outlet for drummed chemical waste previously deposited in the Love Canal site which was closed at roughly the same time as HPL [Hyde Park Landfill] startup. Material was buried at the site by dumping truck loads of drums into open holes and eventually backfilling the excavation. Soil permeability or other leachate reduction characteristics of the geology were not considered during the disposal practices."(4)

No complete inventory of wastes disposed at the Hyde Park Dump appears to exist. The most recent inventory of wastes believed to be disposed at the site was submitted by Hooker to the Interagency Task Force on Hazardous Wastes in November 1978, and is summarized in Table 2. In the inventory, it is estimated that 200 tons of dechlorane (Mirex), 3,300 tons of TCP (trichlorophenol), 5,600 tons of C-56 (hexachlorocyclopentadiene) and C-56 derivatives, 16,500 tons of chlorobenzenes, 1,700 tons of chlorotoluenes, and 2,000 tons of BHC (lindane) were disposed at the Hyde Park site.⁽⁵⁾ The total amount of hazardous wastes believed by Hooker to be disposed at the site is estimated to be 80,200 tons.⁽⁶⁾

In addition to this inventory, internal Hooker inventories exist which include available records of wastes known to be disposed at the site. The most complete internal Hooker inventory for the Hyde Park site provides a listing of wastes and waste quantities disposed during 9 of the 22 years the site was in operation and includes many chemicals

TABLE 2. ESTIMATED TYPES AND QUANTITIES OF
HAZARDOUS WASTES BELIEVED BY HOOKER
TO BE DISPOSED AT THE HYDE PARK DUMP

- a. Name: Hyde Park
- b. Location: Hyde Park Blvd., Town of Niagara
- c. Owner: Hooker
- d. Time Used: Approximately 1953 to 1974

e. <u>Type of Waste Category</u>	<u>Physical State</u>	<u>Total Estimated Quantity - Tons</u>	<u>Container</u>
CaF ₂ (13)	S	400	B
Mercury Brine Sludge (27)	S	< 100	D
C-56 Derivatives (22)	L, S	4,500-	D, B
Org. Phosphates (24)	L, S	4,400	D, B
Hypo Mud (26)	S	1,000	B
Inorg. Phos. (25)	L, S	< 100	D
Misc. Acid Chlorides (20)	L, S	1,200	D
Dechlorane (21)	S	200-	D
BTC's (8)	L, S	1,700	D, B
Chlorotoluenes (10)	L	1,700	D, B
HET Acid (18)	L, S	2,100	D, B
Misc. Chlorinations (14)	L, S	1,600	D, B
BTF Derivatives (14)	L, S	2,900	D, B
DDM (15)	L, S	4,500	D
TCP (16)	L, S	3,300	D
BTF's (12)	L, S	5,600	D, B
Benzoyl Chloride (7)	L, S	6,200	D, B
LDS/MCT (9)	L, S	900	D, B
Metal Chlorides (11)	S	100	D
C-56 (4)	L, S	1,100	D
BHC (5)	S	2,000	D
Chlorobenzenes (6)	L, S	16,500	D, B
Benzyl Chloride (1)	L, S	3,400	D
Thiodan (2)	L, S	1,000	D, B
Sulfides (3)	S	6,600	D
Misc. 10% of above		<u>7,300</u>	
	TOTAL	80,200	

- f. Wastes were land disposal
- g. No records exist as to waste haulers used other than Hooker
- h. No records exist as to the use of this site by others

(Hooker notes that the above tabulation is based on a very limited amount of documented information. Many estimates, as outlined in other sections of their report, were required in order to derive this information.)

which are toxic at low concentrations (as discussed in a previous section of this report).(7) These internal Hooker inventories for the Hyde Park Dump are included in an appendix to this report in which available inventory information for all three sites is provided.

A partial inventory of "larger volume or pesticidal substances" believed to be buried at Hyde Park is provided in a letter from Hooker to NYSDEC dated June 6, 1978. This letter lists ten major substances including the trichlorophenol waste product, dioxin.(8) Dioxin is probably the most highly toxic of the many hazardous wastes dumped by Hooker at the Hyde Park site. ~~*~~ This substance has low solubility in water but is believed to be soluble in other chemical constituents present at the Hyde Park Dump such as toluene and benzene.(9)

In addition, notable discrepancies exist in the inventory information available. In the June 6, 1978 letter to NYSDEC which inventories "larger volume or pesticidal substances," the pesticide, Mirex (or dechlorane) is not identified as being disposed at the site. This substance, however, is shown in the internal Hooker inventory and was also identified in a letter to EPA Region II, dated May 21, 1976. In that letter, Hyde Park was the only site identified as a disposal area for solid Mirex wastes which were produced at the Niagara Plant from 1959 to June 1967.(10) Mirex reappears on the Interagency Task Force inventory where Hooker estimates that 200 tons of dechlorane (Mirex) were dumped at Hyde Park.

The bioaccumulation of Mirex by Lake Ontario fish has been well-documented. In March 1978, "Commissioner Berle stressed that scientific data continues to show that mirex, dumped by Hooker Chemicals and Plastics Corp., Niagara Falls, and others is still present in the lake."⁽¹¹⁾ In addition, many other organics, including pesticides reportedly disposed at the Hyde Park site, could be affecting the biological resources of the Niagara River and Lake Ontario. In a letter dated October 5, 1978 concerning the Hyde Park leachate, Hooker states:

"Polychlorinated biphenyls (PCB's) were detected. The exact Arochlor or Arochlors could not be ascertained. It appears to be 1248 or 1242 or a mixture of both, plus some unknown. A very rough calculation, based on a 10 ng Arochlor 1248 standard, places the concentration at less than 5 ug/l. This number is given as a gross approximation and is in no way to be considered accurate."⁽¹²⁾

Uncertainties as to the full scope of the waste substances that may be buried at Hyde Park Dump are further illustrated by the following excerpt from an internal Hooker document:

"The inventory of materials located at HPL [Hyde Park Landfill] is extensive and diversified. Segregation of wastes with the possible exception of sulfides, was not considered as a rule and records are unclear as to the location of specific materials within the site."⁽¹³⁾

In an internal Hooker document, the history of environmental problems stemming from poor waste management at the Hyde Park site is summarized as follows:

"The general cause of complaints was the contamination of Bloody Run creek as the result of 'pond' drainage of organics or leachate migration from the landfill walls. The first record of these complaints was in 1964 from the State Health Dept. A series of similar type observations (as recorded in the file notes) from surrounding residents, Niagara County Health Dept., Town of Niagara, and New York State Dept. of Environmental Conservation were reported to Hooker between 1964 and 1978."(14)

Table 3 includes a number of complaints as referenced in the Hooker document.⁽¹⁵⁾ Major complaints centered around fire and odor problems and seepages from the site into the Town of Niagara. Problems at Hyde Park have existed for at least 14 years, yet negotiations for cleanup still continue.

The facility was "closed" in 1972 and reported closure costs to Hooker were \$500,000.⁽¹⁶⁾ Apparently, closure procedures and/or post-closure maintenance were inadequate, as DEC notes three current problems:

- . { contamination of sediments in Bloody Run Creek [the stream draining the area] and tributaries;
- . { rupture of the protective berm at the facility, malfunction of the leachate collection system and consequent movement of contaminants from the site;
- . likely contamination of ground water.⁽¹⁷⁾

According to the NYSDEC, "determination of pollutant migration from the site [Hyde Park] is strongly complicated by the likely contamination of the soils and sediments surrounding the outside of the site and in

TABLE 3. REPRESENTATIVE COMMUNICATIONS RELATING TO THE HYDE PARK DUMP: 1964-1978

YEAR/MONTH/DAY			FROM	TO	REGARDING
1964	05	04	Hand written memo		Hyde Park Dump - Record of two fires and general tendencies to cover dump.
1964	06	12	NYSDH	Plant Manager	Permission to enter Hyde Park Boulevard site in Tn of Niaga to check out complaint regarding Industrial Wastes in a small creek.
1964	06	19	J Wilkenfeld	H L Parker	Answer to above letter - took samples of brown and green algae thought to be the source of pollution - attached analytical results of ditches Outside Fence, Past Cooperage, Before RU and East and West Ponds
1967	04	24	NCID	Dr Alexander Katona	states after inspection drums containing wastes are leaching or seeping into a ditch which flows through populated areas request complete report and attached copy of Chap IV - Niagara County Sanitary Code please note Section 6
1968	04	17	NCID	J Brogard	Letter stating great concern over seepage from site in Township of Niagara - want immediate report relative to the present situation and what they may expect in way of relief.
1969	08	10	Mr & Mrs Whitehead	Hooker Greif Brothg SPA	Making each aware of a pond of water 'new to the landscape' of their property located S of RU - just intended to advise each of the companies of their concern.
1969	09	05	NYSDHealth	F T Olotka	Recaps problems over the last five years and states that if "continued operation of this disposal site must be based upon strict adherence to the agreement that positive assurances would be taken to absolutely prevent another breakthrough and this would include extensive diking and around the clock 24 hr day, 7 days a week surveillance of the dike to detect any possible weak points before a breakthrough occurs and immediate elimination of these defects.
1969	10	22	J N Brogard	Conference Notes	Niagara Plant Residue - Initial Task Force Meeting Ref to Hooker facing strong regulatory pressures to control pollution problems at HPD. There are residues that could be disposed of at the Residue Burner right now instead of being sent to HPD - tech control will assist in eliminating any bottlenecks to accomplish this.
1971	07	30	NCID	J Judy	Unsatisfactory Operation of Hooker Disposal Site Tn of Niagara lists 8 violations indicating it is a partial list - asks for a definite statement concerning Hooker's plans for this site

TABLE 3 (continued)

YEAR/MONTH/DAY	FROM	TO	REGARDING
1972 08 31	John Judy	Laurel Pl Mgr NE Ind-TAM Div	apology for incident at HMD disposal site - involving odors from the site causing a personnel problem in his plant, summary of what we are doing and expect to do
1972 11 29	Tygert, RE report	P T Olska	requesting cause discharge of all water from the lagoon areas and to remove these wastes to another site where an adequate and approved method of treatment can be provided. after the above liquid industrial wastes are removed from the site, this office will entertain application for discharge of uncontaminated surface water.
1975 05 13	NCMD	D J Carrero	Siting 4 occasions when leachate was found in same spots given to May 20, 1975 to remove all leachate material, liquid and contaminated solid.
1975 10 07	Niagara Gazette	Pollutath's lake entry proped	"Began studying possibility that a toxic chemical pollutant may be entering Lake Ontario from landfill sites..... E Gedeon, assistant NCH Comm for environmental matters, said this morning he know of no landfill close enough to the lake which could be the source of the material. He acknowledged that it might be possible, given certain water and rock conditions underground, for an inland landfill site to leach enough material through to the lake. PCN's do not break down after ingestion, and hence may also travel undisturbed through the food chain from smaller to larger fish....."
1976 10 13	John Marabco	D J Carrero	Tour of Hooker Landfill sites 9/27 by DEC personnel - toured all three sites no visible contaminant at Love's Canal 102nd St site a small amount of leachate in the lagoon. HMD north side had several tiny leach spots but all inside the Hooker property - noted west end oil seeping from tank at Home Oil Company
1976 12 08	J J Czapl	P T Olska	Preliminary Results of NYSDEC results and "Paul Foresch indicated that DEC felt that there is seepage from HMD Land fill site into the HMD west ditch, further he felt Hooker would be required to submit and institute some type of control program
1976 12 10	NYSDEC	Hooker	Samples of leachate emanating from these sites were collected by reps of the Dept for chemical analysis. HMD contained significant quantities of chlorinated hydrocarbons stated preliminary data received is sufficient to cause serious concern. Requested a meeting 12/20/76

TABLE 3 (continued)

YEAR/MONTH/DAY FROM TO REGARDING

1977 04 01	McMahon NYSDEC	F T Olotka	stating phenol level of west side ditch at HFD was found to be about 45% of the level found in the leachate collection pond - the continued utilization of HPLandfill is not acceptable and is to be discontinued immediately.
1978 03 01	NYSDEC	D J Carrone	Confirms phone call 2/20 a flow estimated at 2gpm of internal leachate was observed escaping from the collection moat thru the outer berm just east of the west conduit which drains the top of HFD. As soon as weather permits - a thorough inspection of the berm is to made and appropriate action taken to assure no further break-out.
1978 00 04	J Czaplak	Dial List	DEC Sampling of the HPL 0 provide defensible evidence of purported discharges of Mirex and other pesticides to the Niagara River Hooker and DEC to sample concurrently.

Source: Reference 15.

the surface drainage system to the Niagara River." (13) Sediments show contamination by chlorinated toluene, benzene, and other compounds. Bloody Run Creek is contaminated from the fill to a point near Niagara University where it enters a storm sewer and eventually discharges to the Niagara River. (19) The exact extent of contamination of the buried sewer line is not known due to access limitations. In 1976 and 1977, a total of over 5 million gallons of leachate was transported from the site and treated out-of-state (presently, it is reportedly being disposed in underground injection wells in Ohio). (20) These disposal costs are approximately \$500,000 per year. (21)

During the past year, there have been two breeches of the berm, resulting in discharges to Bloody Run Creek and the preparation of a legal referral by DEC. (22) In July 1976, the U.S. EPA found Mirex in water from the site's collection pond, in the collection ditch, and in soil from the north side of the site. A September 1977 DEC sample from a culvert under Port Authority Road showed high levels of Mirex (1850 parts per billion). A July 1978 sediment sample from Bloody Run Creek showed extensive contamination: 633 parts per million (ppm) tetra-chlorobenzene, 154 ppm BHC (lindane), 3851 ppm hexachlorobenzene and 68 parts per billion (ppb) Mirex, based on a sample of 320 grams wet soils and 75 ml decanted liquid. (23) All of these contaminants are hazardous in the low ppb range. Moreover, in December 1978, dioxin was detected in samples taken in the landfill lagoons at the Hyde Park Dump and in a drainage basin outside the site:

"A spot sample was taken of leachate from the landfill lagoon and of sediment from a drainage basin located near the site which received rainfall runoff from the surrounding area including the landfill and other industrial properties. The presence of Tetrachlorodibenzo-P-Dioxin (TCDD) has been detected by the Carborundum Analytical Laboratory, 3401 LaGrand Boulevard, Sacramento California, as follows: leachate - 1.5 ppm; sediment - 7.1 ppb."(24)

The possibility that ground-water contamination had occurred at the Hyde Park Dump was raised in an internal Hooker memo dated September 6, 1977, from J. Czapla to F.T. Olotka, B.J. Carreno, and R.A. Bowman:

"monitoring wells have been installed - possibility that the ground water at the HPD may be contaminated with materials buried at the site because - unial [sic] excavations may have been made to bedrock. Observation of discolored soils in borings and strong odor similar to that of the lagoon - preliminary groundwater samples were discolored and have a phenolic odor."(25)

initial

Four months later, however, in a letter dated January 18, 1978, (from J. Czapla to John McMahon, NYSDEC Regional Administrator for Environmental Quality) which accompanied a report by Hooker on the Hyde Park Dump, the indications of ground-water contamination internally noted earlier are not discussed. Instead, Hooker maintains that ground-water investigations are not necessary and that ground-water contamination is unlikely because of the particular soil and hydraulic conditions present at the site:

"Hyde Park Site

1. It is our opinion there is no appreciable contamination of surface waters from the site since runoff monitoring results indicate compliance with minor exceptions to drinking water standards.

2. Ground water investigations do not warrant further consideration for the following reasons:
 - a. The landfill was constructed in natural clayey silt material having a low permeability factor of 0.003 ft/day (0.0000010 cm/sec.).
 - b. For leachate to migrate horizontally to contaminate surrounding ground water particular soil and hydraulic conditions must exist. None of these conditions are present at the site."(26)

NYSDEC, however, disagreed with Hooker's assessment that ground water investigations were unnecessary. In September 1978, the Agency stated the following after reviewing the boring logs in a June 1978 report on the Hyde Park Monitoring Program (prepared by Hooker's consultants, Conestoga-Rovers):

"The boring logs given in Conestoga-Rovers and Associates June 1978 report entitled 'Site Investigation and Monitoring Programme' indicate that contamination of groundwater both above and below the clay seam is likely."(27)

Because of the indications of ground-water contamination, NYSDEC would only tentatively approve Hooker's engineering plans for interim mitigative measures at the site. The Agency did not feel that Hooker's plans for intercepting the contaminated leachate fully addressed the problem:

"...We can give approval to these plans only with the caveat that the Department may require modifications or additions to the proposed construction activities based on these additional documents.

While the submitted plans will reduce the movement of contaminants [sic] into surface and groundwaters, they do not fully address this problem. The main thrust of the proposed construction seems to be to reduce the volume of leachate requiring collection and treatment, and thus reduce Hooker's cost for treating leachate from the site.

'...Locating the tile drain at the elevations stated in the plans will reduce the piezometric head within the raised portion of the landfill but it may not intercept most water moving out of or into the soils under the fill. In fact, in many places the drain system is actually at a higher elevation than the elevation of the land surface at the nearest point outside of the landfill (that is, the elevation of the natural grade of the surface). To be more effective, the drain tile should be much deeper than is presently proposed.'"(28)

Letters from James Czapla of Hooker Specialty Chemicals to John McMahon of New York State DEC, dated October 16, 1978 and November 7, 1978 stated:

"It is mutually understood by DEC and Hooker that the current construction program may not alleviate all environmental concerns at the site and depending upon monitoring results future work may be deemed necessary.'"(29)

In addition to DEC's reservations concerning the adequacy of Hooker's interim mitigative measures, the Niagara Town Board recently voiced a number of concerns pertaining to the efficacy of these measures and the continued environmental problems posed by the Hyde Park Dump.

{ As a result of these concerns, it is possible the Town may press for excavation of the entire site.

On November 16, 1978, the Niagara Town Board and Hooker representatives held a meeting to evaluate Hooker's request for two permits necessary to perform remedial work planned for the Hyde Park Dump. Work permits are required for the construction of three pump houses at the site, the excavation of contaminated soil near the landfill site, and the addition of lagoon cover material.(30)

In considering Hooker's application for these permits, members of the Town Board expressed a number of concerns regarding the current and future status of conditions at the Hyde Park site. These concerns included:

1. identification of constituents in the contaminated soil;
2. the present status of Hooker's monitoring program at the site, the extent of monitoring to be performed, and sample results from monitoring already performed;
3. the future status of the site once remedial measures are completed;
4. dissatisfaction with maintenance issues pertaining to the site;
5. past liability issues pertaining to the site and future liability issues that could arise if the Town approved permits for further work at the site.(31)

The "paramount ingredient in the issuance of a permit" was considered by the Town Board members to relate to a "save harmless" clause providing the Town with immunity from any lawsuits that might arise as a result of occurrences at the Hyde Park Dump.(32) Unless Hooker is

willing to agree to such a clause, the Town Board is prepared to revoke the site's 1953 permit (as a result of violations at the site) and direct Hooker to excavate the entire site and remove the material. The Town Board's decision, as expressed in the minutes of the meeting, is excerpted below:

"Councilmen Richards indicated that it is the consensus of the Board that Hooker Chemical is seeking three permits; the third permit is to continue to violate the original agreement of 1953. He indicated that the Town Board is prepared to revoke the 1953 permit and ask Hooker Chemical to remove the Hyde Park Land-fill unless the Town of Niagara receives a statement of indemnification from Hooker Chemical similar to the following:

'The Hooker Chemical Co. will hold the Town of Niagara harmless from any and all liability arising out of the operation, maintenance, construction and existence of the Hyde Park Land-fill from August 11, 1953 and thereafter.'"(33)

The Town Board's reasons for reaching that decision were explained by Attorney Kahn:

"Attorney Kahn explained that the Town Board has concluded that Hooker is in violation of the first permit and they could not logically grant the other two permits since the first permit was violated. He stated that if they accept the premise that Hooker violated the 1953 permit, any other action at this particular time would indicate that they condone actions other than what would be in compliance with that permit and this would be compounding the error. He stated that they are violating the permit and if Hooker gives the Town an indemnification agreement of some type, they will modify the permit and probably go along with Hooker's request. By Hooker's own admission, they are more than 10' over the contour of the land.'"(34)

The Town Board also appears to be considering re-establishing its Health Board. During the Town Board meeting, one of the councilmen further indicated that the Environmental Commission might take on the responsibilities of the Town's Health Board and could make additional cleanup demands in excess of those already made by DEC.⁽³⁵⁾

Another major problem at the Hyde Park Dump concerns the disposal of the approximately 3 million gallons of leachate accumulated annually by the leachate collection system at the Hyde Park site.⁽³⁶⁾ This leachate is currently transported to off-site disposal areas which include or have included Tricil and Ohio Liquid Disposal.⁽³⁷⁾ According to a March 7, 1978 letter from Hooker representative J. Czapla to J. Gibson, Hooker appears to have encountered difficulties in finding off-site disposal areas that would accept the leachate:

"Tricil and Ohio Liq [Liquid] Disposal refused to accept 'black and viscous' portion of the HP [Hyde Park] Leachate - sample taken to works lab for analysis for disposal purposed [sic]."⁽³⁸⁾

Hooker correspondence dated March 28, 1978, indicates the Company began to undertake a study "to determine if the amount of leachate could be reduced and/or a less expensive method of waste disposal could be developed."⁽³⁹⁾

As a result of site modifications which Hooker has agreed to perform at the Hyde Park site, the Company anticipates that "a significant reduction in the total volume of leachate generated ... upwards of 50%" would result.⁽⁴⁰⁾

In addition, in October 1978, Hooker proposed to truck or pipe the collected leachate to the Niagara Falls' Wastewater Treatment Plant, a measure which would further reduce the expense of disposing of the leachate. If this plan is approved, Hooker estimates an average of 11,000 gallons per day would be discharged in batches for a total yearly discharge estimated at 1.5 million gallons.⁽⁴¹⁾ This plan, however, would require require approval by the Niagara Plant and there are uncertainties as to the capacity of the facility to handle the wastes. The treatment plant is apparently already functioning up to or beyond design capacity and experiences operational difficulties. An official of the Niagara Falls Department of Utilities has indicated that the plant's activated carbon unit has not been operating for several months.⁽⁴²⁾

Two recent health problems relating to escape of pollutants from Hyde Park into the environment have been identified and are currently undergoing investigation: (1) the presence of toxics in water wells near the site; and (2) medical reports which indicate that seven members of a local family, whose property borders on Bloody Run Creek, suffer from inexplicable respiratory ailments (see Attachment 3). Recent developments in this situation indicate that a \$3 million lawsuit has been initiated on behalf of 12 members of the Armigost family. The lawsuit action has been brought against the Town of Niagara, the Town of Lewiston, the County of Niagara, the State of New York, and Hooker.⁽⁴³⁾ Notice of claims have been filed in the Town Clerk's Offices and in the Court of Claims in New York State.

JAMES A. DUNLOP, M.D.

PEDIATRICS

~~WESTMINSTER~~ 1879 Whitehaven Road
GRAND ISLAND, NEW YORK 14072

ATTACHMENT 3

October 6, 1978

Dr. Francis J. Clifford, Commissioner
Health Department, Niagara County
5467 Upper Mountain Road
Lockport, New York 14094

Re: Armagost Family
477 Belvedere Avenue
Niagara Falls, New York 14302

Dear Dr. Clifford:

It has come to my attention that the creek known as Bloody Run, traverses thru the property of the Fred Armagost family living at 477 Belvedere Avenue, Niagara Falls, New York 14302. Mr. Armagost, his son, Wayne, age 24, Wayne's wife, Barbara, and four of his grandchildren all live on this property and all have severe upper respiratory problems. Each of the grandchildren has had problems since returning home from the newborn nursery following birth.

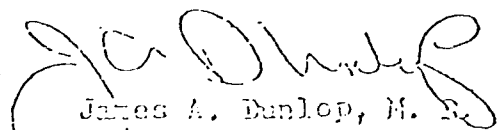
As you know, Hooker Chemical has recently admitted to dumping Mirex into the Bloody Run Creek. In addition, Hooker has been dumping various chloride compounds in the creek; these latter chemicals are known to be highly toxic to the respiratory tract.

All of the Armagosts have been evaluated by myself and Dr. Byung Park, Professor of Pediatrics and Immunology at Buffalo Children's Hospital, and we together cannot explain the high incidence of respiratory disease in this family on any other than extrinsic causes.

I have discussed the situation with Dr. Laverne Campbell of the State Health Department and Dr. Campbell feels that the situation should be handled initially by the Niagara County Health Department.

Where do we go from here? I'll look forward to hearing from you regarding this matter in the near future.

Sincerely,



James A. Dunlop, M.D.

JAD/ar

Results of recent samples taken at five wells near the Hyde Park site indicate that small quantities of contaminants have been detected:

"Analytical results telephoned to me on November 28, 1978, showed that halogenated hydrocarbons were 0.904 micrograms per liter (P.P.B.); chlorine was determined to be 0.662 micrograms per liter. These results will be confirmed in writing..

'In my judgement, it can be concluded that there is no chemical contamination reaching these wells at this time, which are located south of the Hooker-Hyde park Chemical Waste Disposal Site. Results of tests being run by the N.Y. State Health Dept. on three (3) wells north of the Hooker site are not yet available. It is recommended that tests be repeated on these five (5) wells next Spring."(44)

Other significant environmental and health problems could arise from chemicals leaving the area via Bloody Run Creek which flows to the Niagara River and ultimately to Lake Ontario. 

Hooker's internal inventory of materials disposed at the Hyde Park Dump for various years [1955, 1957, 1962 -- (no volumes indicated), 1964, 1968, 1969, 1973, and 1974] can be used to estimate the total wastes disposed at the dump site. The average weight of materials dumped during these seven years of record is approximately 10,500 tons per year. Using this value and knowing that the site was in operation for twenty years, the total weight of material at the Hyde Park site is estimated at 210,000 tons. If the material is assumed to have a specific gravity of 1.2 (i.e., the density of the material is 1.2 times that of water), a ton of material is approximately equal to a cubic yard. Based on this analysis, the volume of waste at the site is estimated to be 210,000 cubic yards, exclusive of contaminated soils. Such

a volume would be roughly equivalent to a 15-acre site piled with waste material 10 feet high. Soil borings in the area indicate that bedrock varies from 7 feet to 35.5 feet below natural grade.(45)

The Hyde Park Dump has been plagued with problems over the years. The site has experienced significant subsidence in parts, the berms and dikes have collapsed, and the leachate collection system has malfunctioned periodically. Hazardous organics from the site have leached through the surface strata and contaminated Bloody Run Creek.(46)

Hooker recently hired Conestoga-Rovers and Associates to develop engineering plans to correct some of the immediate problems at the site. The NYSDEC Information Dossier 78.13 states:

"Hooker has authorized the expenditure of funds for additional control measures at the Hyde Park Landfill. These measures are projected to cost between \$800,000 and \$1 million and include reconstruction of the peripheral leachate collection system, excavation and proper disposal of contaminated soils near the Power Authority Road, elimination of the peripheral berm by the addition of compacted clay to the side slopes, and increasing the depth of cover material on top of the site. Hooker is committed to these control measures because in the long term these modifications will save the corporation a considerable sum of money by reducing the volume of leachate requiring treatment."(47)

Hooker has evidently estimated the costs for the project at \$1,240,000.(48)

It is the impression of DEC that Hooker is also planning to dredge the entire drainage system and contaminated section of Bloody Run Creek.

According to information provided in the NYSDEC Information Dossier