

United States District Court

FOR THE

WESTERN DISTRICT OF NEW YORK

Love Canal

CIVIL ACTION FILE NO. _____

UNITED STATES OF AMERICA

Plaintiff

v.

HOOVER CHEMICALS AND PLASTICS CORPORATION, HOOVER CHEMICAL CORPORATION, OCCIDENTAL PETROLEUM INVESTMENT CORPORATION, OCCIDENTAL PETROLEUM CORPORATION, THE CITY OF NIAGARA FALLS, NEW YORK, THE NIAGARA COUNTY HEALTH DEPARTMENT AND THE BOARD OF EDUCATION OF THE CITY OF NIAGARA FALLS (Love Canal Landfill)

Defendant

SUMMONS

To the above named Defendant :

You are hereby summoned and required to serve upon the United States Attorney for the Western District of New York

plaintiff's attorney, whose address 502 United States Courthouse, Buffalo, New York 14202

an answer to the complaint which is herewith served upon you, within 20 days after service of this summons upon you, exclusive of the day of service. If you fail to do so, judgment by default will be taken against you for the relief demanded in the complaint.

Clerk of Court.

Deputy Clerk.

Date:

(Seal of Court)

NOTE:—This summons is issued pursuant to Rule 4 of the Federal Rules of Civil Procedure.

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF NEW YORK

UNITED STATES OF AMERICA,

Plaintiff,

v.

HOOKEE CHEMICALS AND PLASTICS
CORPORATION, HOOKEE CHEMICAL
CORPORATION, OCCIDENTAL
PETROLEUM INVESTMENT CORPORATION,
OCCIDENTAL PETROLEUM CORPORATION,
THE CITY OF NIAGARA FALLS,
NEW YORK, THE NIAGARA COUNTY
HEALTH DEPARTMENT AND THE BOARD
OF EDUCATION OF THE CITY OF NIAGARA
FALLS (Love Canal Landfill)

Defendants

Civil Action No.

COMPLAINT FOR DECLARATORY JUDGMENT, INJUNCTIVE
RELIEF, RESTITUTION AND CIVIL PENALTIES

As its Complaint herein, the United States of
America, for the Administrator of the United States Environmental
Protection Agency (hereafter referred to as "EPA") alleges that:

STATEMENT OF THE CASE

1. As explained in more detail below, from
about 1942 until 1953 Hooker Chemical Corporation and its
predecessors in interest disposed of its chemical
wastes at the Love Canal landfill in Niagara County, New
York. The migration of these hazardous wastes from the
landfill site has resulted in the entry of these wastes into
the soil outside the Canal, the sewers running through the
Canal area, waters of the United States, ambient air at the
Canal and air in homes in the Canal area; as a result, these
wastes have been consumed by human, animal and plant life.
The migration of these wastes and their consumption by human,
animal and plant life gives rise to this action.

2. This is a civil action instituted pursuant to:

(a) Section 111 of the Declaratory Judgment Act, 28 U.S.C. 2201, for a declaratory judgment, finding that the waste disposal site in Niagara County, New York, known as the Love Canal or the Love Canal landfill constituted and constitutes an imminent and substantial endangerment to health, the environment and the public welfare;

(b) Section 7003 of the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. 6973, for injunctive relief concerning an imminent and substantial endangerment to health and the environment, and for reimbursement of costs incurred by plaintiff;

(c) Section 504 of the Clean Water Act ("CWA"), 33 U.S.C. 1364, for injunctive relief concerning an imminent and substantial endangerment to the health of persons or the welfare of persons, and for reimbursement of costs incurred by plaintiff;

(d) The Common Law of Nuisance, for injunctive relief concerning the escape of hazardous chemical wastes from the Love Canal into the Niagara River, and the escape of hazardous chemical wastes from the Love Canal into the environment where citizens of the United States have come and continue to come in contact with those wastes, and for reimbursement of costs incurred by plaintiff;

(e) Section 1431 of the Safe Drinking Water Act ("SDWA"), 42 U.S.C. 3001, for injunctive relief concerning an imminent and substantial endangerment to the health of persons;

(f) Section 13 of the Rivers and Harbors Act of 1899 ("the Rivers and Harbors Act" or "the Refuse Act"), 33 U.S.C. 407, for injunctive relief concerning violations of that section;

(g) Section 309 of the Clean Water Act, 33 U.S.C. 1319, for injunctive relief and civil penalties for violations of the Clean Water Act.

JURISDICTION

3. This Court has jurisdiction over the subject matter of this case pursuant to 28 U.S.C. 1331, 28 U.S.C. 1345, 42 U.S.C. 6973, 33 U.S.C. 1364, and 33 U.S.C. 1319.

4. Notice of the commencement of this action has been given to the State of New York pursuant to 42 U.S.C. 6973 and 33 U.S.C. 1319(b).

DEFENDANTS

5. Hooker Chemicals and Plastics Corporation ("HCPC") is a wholly owned subsidiary of defendant Hooker Chemical Corporation. It is incorporated in the State of New York.

6. Hooker Chemical Corporation ("HCC") is a wholly owned subsidiary of defendant Occidental Petroleum Investment Corporation. It is incorporated in the State of California.

7. Occidental Petroleum Investment Corporation ("OPIC") is a wholly owned subsidiary of Occidental Petroleum Corporation. It is incorporated in the State of California.

8. Occidental Petroleum Corporation ("Occidental") is a corporation organized and existing under the laws of the State of California. It has no parent organization.

9. For the purposes of this action, HCPC, HCC, OPIC, and Occidental are one entity; jointly and severally liable for one another's acts and the acts of their predecessors in interest. Hereafter in this Complaint HCPC, HCC, OPIC, Occidental, and their predecessors in interest will be referred to as "Hooker."

10. The City of Niagara Falls, New York (the "City") is a public entity incorporated under the laws of the State of New York. The City owns property in the area of the Love Canal landfill. The City is named herein as a defendant only to insure that the remedial measures requested by plaintiff can be fully implemented by the City's action with regard to its own property.

11. The Board of Education of the City of Niagara Falls (the "Board") is a public entity incorporated under the laws of the State of New York. The Board owns property in the area of the Love Canal landfill. The Board is named herein as a defendant only to insure that the remedial measures requested by plaintiff can be fully performed by the Board's actions with regard to its own property.

12. The Niagara County Health Department ("the County Health Department") is a public entity in the State of New York. The County Health Department has the power to enter privately owned property in order to suppress or remove a public nuisance. The County Health Department is named herein as a defendant only to insure that the remedial measures requested by plaintiff can be fully implemented, if necessary, by the County Health Department's power of entry to suppress or remove.

13. Hooker operates a chemical manufacturing plant in Niagara Falls, New York which produces phenolic resins, metal finishing chemicals and equipment, agricultural chemicals, fertilizer, plastics and industrial chemicals. Its Niagara Falls operations have produced and continue to produce thousands of tons of chemical wastes each year.

DEFINITIONS

14. Several terms or expressions of particular importance will be repeated in the course of this Complaint. These terms, as used in this Complaint, are defined or explained in the following paragraphs so that they will be more readily understood in the text:

- a. The "Ambient Level" of a chemical in any particular place is the amount of the chemical scientists would ordinarily expect to measure in the absence of an incremental amount of the chemical resulting from an outside source.
- b. The term "Water Quality Criteria" refers to a qualitative or quantitative estimate of the concentration of a pollutant in ambient waters which, when not exceeded, will insure a water quality sufficient to protect a specified water use. Two types of criteria are set by EPA: human health criteria and aquatic life criteria. The aquatic life criteria set in EPA's Water Quality Criteria establish levels of maximum chemical concentration in ambient water which can be tolerated while still maintaining protection of aquatic life. The human health criteria represent levels of chemical concentration which may exist and still not pose an undue risk to humans who drink the water without further treatment or who eat fish or shellfish from the water. The Criteria reflect the latest scientific knowledge on the identifiable effects of pollutants on public health.

and welfare, aquatic life and recreation. In addition, with respect to carcinogens, the maximum human health protection criterion is zero to reflect the fact that it is EPA policy that there is no scientific basis for estimating safe levels for carcinogens. Because the achievement of levels of zero may be infeasible at this time, EPA has considered the range of 10^{-5}

(one additional cancer in an exposed population of 100,000) to 10^{-7} (one additional cancer in an exposed population of 10,000,000) as a maximum target risk. The range represents chemical concentrations estimated to pose various degrees of incremental cancer risk. Some of these criteria have been published in the Federal Register, 44 F.R.

15925 (March 15, 1979), 44 F.R. 43660 (July 25, 1979), 44 F.R. 56628 (October 1, 1979).

- c. The term "Bioaccumulation" refers to the tendency of animals and plants to accumulate particular chemicals in their bodies. For example, a fish may ingest an ounce of algae that contains 10 milligrams of a toxic chemical. The natural elimination processes of the fish may dispose of 5 milligrams; the remaining 5 milligrams accumulate in tissue or organs of the fish. When the fish next ingests a 10 milligram dose of the toxic, it would add 5 more milligrams, and so on as the fish ingests more

of the toxic, building up to the point where the retentive capacity of the fish for the toxic is exceeded. Bioaccumulation may result in accumulation of the toxic to the point where normal biological functions, such as growth and reproduction, are adversely affected.

- d. The term "Carcinogen" refers to any substance which has been proven to cause cancer or is suspected to cause cancer in humans, animals or both.
- e. The term "Mutagen" refers to any chemical substance that causes a change in the characters of a gene that is perpetuated in subsequent offspring or divisions of the organism or cell in which the change occurs.
- f. The term "Teratogen" refers to any chemical substance that causes abnormal development of the fetus, manifested as deficient, redundant, misplaced or grossly misshapen body parts.
- g. The term "Environment" refers to all free and unconstrained air, water, sediment and soil, and to plants and animals which are in the public domain.
- h. The term "Epidemiological Study" refers to a study of the distribution and determinants of

a disease in a population.

- i. The term "Exposure" refers to actual contact with a chemical by a living organism, whether by inhalation, contact with or absorption through the skin or ingestion.
- j. The term "Subsurface water" refers to water in upper subsurface geological layers, whether contained in bedrock or flowing through soil.
- k. The term "Groundwater" refers to subsurface water found in the zone of saturation, the top of which is known as the water table. The zone of saturation is that area where all voids are filled with water.
- l. The term "Landfill" refers to a site used for disposal of wastes, including chemical wastes.
- m. The term "Leachate" refers to any liquid or semi-liquid material which is formed when subsurface or surface water mixes with chemicals disposed of in a landfill and migrates from the landfill.
- n. The term "Migration" refers to the movement of chemicals or leachate away from a landfill, whether by runoff, seepage through the soil, or through the air.
- o. The term "Persistent" refers to the ability of a chemical to withstand for a prolonged period of time the processes which cause chemical breakdown. These processes consist of, inter alia, reaction with microbes, reaction with soil constituents and photo-

decomposition. Persistent chemicals may remain in the environment for many years, posing long-term risks to human health and the environment.

p. The term "Toxic" or "Toxicological Effect" refers to adverse biological or health effects which result from either acute (short-term) or chronic (long-term) exposure to a chemical. Toxicological effects in humans include, but are not limited to respiratory diseases, liver abnormalities, birth defects, central nervous system disorders, skin irritations, nausea, and ultimately, mortality.

q. Terms of chemical measurement used in this Complaint are: "Milligram Per Kilogram" (measured in soil or sediment) and "Milligram Per Liter" (measured in water), each of which is equal to "Part Per Million" (ppm); "Microgram Per Kilogram" and "Microgram Per Liter," each of which is equal to "Part Per Billion" (ppb); and "Nanogram Per Kilogram" and "Nanogram Per Liter," each of which is equal to "Part Per Trillion" (ppt). For purposes of illustration, mixed terms may be justifiably compared, e.g., microgram per kilogram and microgram per liter each represents the expression part per billion.

GENERAL ALLEGATIONS

The Site

15. The Love Canal landfill is located in the southeast corner of the City of Niagara Falls. It consists of 16 acres and lies approximately one-half mile north of the Niagara River, about six miles upstream (east) of the Falls. The landfill area is bounded on the north by Colvin Boulevard, on the south by Frontier Avenue, on the west by 97th Street, and on the east by 99th Street. (See Map attached hereto and incorporated by reference herein as Exhibit 1.)

16. In the 1890's a land speculator and industrial developer named William Love purchased and excavated the site on which the Canal is located as part of a proposed power canal bypassing Niagara Falls. Financial problems suffered by the Canal developers and technological advances making possible the long range transmission of electrical energy forced the abandonment of the Canal project. The abandoned Canal was about 60 feet wide.

17. In May 1904, the Niagara County Irrigation and Water Supply Development Company purchased the Canal; in 1942, its successor, the Niagara Power and Development Company, entered into a letter agreement granting Hooker permission to dispose of wastes in the Canal.

18. On or about April 29, 1947, Hooker bought the Canal and two 70 foot strips of land abutting the east and west sides of the Canal from the Niagara Power and Development Company.

19. After having used the Canal and its adjoining property as a chemical waste disposal site for several years, Hooker sold the Canal and the adjoining property to the Board

Hooker sold the Canal and the adjoining property to the Board of Education of the City of Niagara Falls ("the Board") on or about April 23, 1953.

20. On or about September 29, 1955 the Board sold 6.58 acres located at the northern end of the Canal property to the City of Niagara Falls. That portion of the property now owned by the City lies between Read Avenue and Colvin Boulevard. On or about January 25, 1962 the Board sold 5.98 acres at the southern end of the Canal property to Ralph Capone, a resident of New York City. On June 18, 1974 Capone sold his portion of the Canal property to L. C. Armstrong, a resident of Pennsylvania. That portion of the Canal property now owned by Armstrong lies between Frontier and Wheatfield Avenues. The remaining portion of the Canal property, between Wheatfield and Read Avenues, is still owned by the Board.

21. Although some private residences were built adjacent to the northeast corner of Love Canal as early as 1938, many more homes were built around the Canal after 1953 and 239 homes now surround the Canal on its east and west sides. The middle section of the Canal is occupied by an abandoned grammar school ("the 99th Street School") and a playground. Four hundred ten students were enrolled at the 99th Street School during the 1977-78 school year.

22. Three distinct storm sewers owned by the City of Niagara Falls underlie the immediate area of the Love Canal landfill. These storm sewers are identified as the 96th Street and Colvin Boulevard Sewer System, the 100th Street and Colvin Boulevard Sewer System, and the 100th Street and Frontier Avenue Sewer System. Two of these systems (the 96th Street and the Colvin Boulevard System and the 100th Street and Colvin Boulevard System) flow into Black Creek, which joins with Bergholtz

Niagara River. The other system (the 100th Street and Frontier Avenue System) flows directly into the Niagara River.

23. Two storm sewer systems (the 100th Street and Colvin Boulevard System and the 100th Street and Frontier Avenue System) were built in 1952 before Hooker sold the Canal property to the Board. The third system (the 96th Street and Colvin Boulevard System) was built in 1957.

The Wastes Which Were Dumped At The Site

24. From 1942 to 1952, Hooker disposed of more than 21,000 tons of various chemical wastes in the Love Canal. Wastes brought to the Canal were transported and dumped as liquids, solids, or semi-solids in metal or fiber drums. Some materials were drained from their drums and emptied into the Canal directly; the drums were later transported from the site or placed in the Canal empty of wastes. In addition, bulk quantities of liquid and solid industrial wastes were deposited directly into the Canal.

25. Hooker disposed of the following 12 principal types of chemical wastes in the amounts indicated at the Love Canal site:

<u>Type of Waste</u>	<u>Quantity</u>
Miscellaneous acid chlorides	400 tons
Thionyl Chloride	500
Miscellaneous chlorinations	1,000
Dodecylmercaptans (DDM)	2,400

<u>Type of Waste</u>	<u>Quantity</u>
* Trichlorophenol	200
Benzoyl Chloride	800
Metal Chlorides	400
Liquid Disulfides/Monochlorotoluene (LDS/MCT)	700
Benzene Hexachloride (BHC or Hexachlorocyclohexane)	6,900
Chlorobenzenes	2,000
Benzyl Chlorides	2,400
Sulfides	2,100
Miscellaneous quantities of above	<u>2,000</u>
Total	21,800 tons

The Chemicals Which Have Migrated from the Site and Entered the Environment

26. The following chemicals which migrated from the landfill were detected at levels sufficient to affect adversely human health and the environment.

A. DIOXIN

(1) There are many isomers of dioxin. The most prevalent, 2,3,7,8 - tetrachlorodibenzo-para-dioxin (TCDD) is one of the most potent chemicals known to science. It is acutely toxic at low doses; it causes cancer, birth defects, mutations, fetal death in laboratory animals, and can be fatal to children and adults.

(2) Dioxin is persistent in the environment and is bioaccumulative.

(3) The official EPA Water Quality Criterion for 2,3,7,8-TCDD for protection of human health is zero. The level of exposure to dioxin which can be expected to pose a cancer rate of one additional case of cancer per million people exposed is .000000046 micrograms per liter (ppb). The State of New York has indicated that it

has detected 2,3,7,8-TCDD in the sediment of Black Creek at Love Canal at a level of 31 micrograms per kilogram (ppb). In addition, 3 micrograms per kilogram (ppb) or 2,3,7,8-TCDD were identified by the State in a homogenate of crayfish from Black Creek. This level of dioxin found in water used for drinking or recreation, or found in fish or shellfish used for human consumption would exceed the level established in EPA's Water Quality Criteria posing an incremental cancer risk of one additional cancer in an exposed population of one million people, by 670,000,000 and 65,000,000 times, respectively.

B. TETRACHLOROETHYLENE

(1) Tetrachloroethylene exhibits adverse effects on the central nervous system and is also a carcinogen. Its effects include depression, nausea, and at high exposure, unconsciousness and, ultimately, death. Exposure to tetrachloroethylene also causes liver dysfunction.

(2) The official EPA Water Quality Criterion for tetrachloroethylene is zero. The risk of cancer posed by exposure to 200 nanograms per liter (ppt) of tetrachloroethylene is one additional cancer case per one million people exposed.

(3) Analysis performed by the Environmental Protection Agency has detected levels of tetrachloroethylene in the blood of Love Canal residents above the levels established in EPA's Water Quality Criteria, posing an incremental cancer risk of one additional cancer in an exposed population of one million people. In one resident a level of 255,550 nanograms per liter (ppt) was found. This individual is carrying a body burden of tetrachloroethylene of more than 1200 times the level posing an incremental risk of one additional cancer in a million.

(4) Tetrachloroethylene has been detected in tap water from homes near the Love Canal landfill at levels of 383, 608, 650, 375 and 350 nanograms per liter (ppt). These levels of tetrachloroethylene, exceed the level established in EPA's Water Quality Criteria posing an incremental cancer risk of one additional cancer in an exposed population of one million by 1.9, 3.0, 3.3, 1.9, and 1.8 times, respectively.

C. CHLOROFORM

(1) Chloroform is a carcinogen which also seriously affects several vital body functions. Chloroform causes narcosis of the central nervous system, destruction of liver cells, kidney damage, harmful alteration of blood chemistry and cardiac problems such as arrhythmia.

(2) The official EPA Water Quality Criterion for chloroform is zero. The level of exposure to chloroform which can be expected to pose a cancer rate of one additional case per one million people exposed is 0.21 micrograms per liter (ppb).

(3) In sampling at Love Canal the Environmental Protection Agency has detected levels of chloroform in the drinking water of five Love Canal homes which exceed the level posing an incremental risk of one additional cancer in a million. In one home the level of chloroform was 24.7 micrograms per liter (ppb), 118 times the incremental risk level.

D. DICHLOROETHANE

(1) Dichloroethane is a carcinogen. Its toxic effects also include central nervous system disorders, depression, anorexia, vomiting and kidney and liver dysfunction. At sufficient doses it is lethal.

(2) The official EPA Water Quality Criterion for dichloroethane is zero. The Environmental Protection Agency has determined that exposure of humans to a level of 0.7 micrograms per liter (ppb) of dichloroethane poses a risk of one additional cancer to an exposed population of one million persons.

(3) A blood sample taken from a resident of one house abutting the Love Canal landfill indicated a dichloroethane level of 28 micrograms per liter (ppb). This individual is carrying a body burden of dichloroethane 40 times the level posing an incremental risk of one cancer in a million.

E. BENZENE HEXACHLORIDE ("BHC" or "Hexachlorocyclohexane")

(1) The "gamma" and "alpha" isomers of BHC have been detected at significant levels migrating from the landfill. The gamma isomer is also known as the toxic pesticide "Lindane."

(2) Both isomers are acutely toxic and are carcinogenic. They have also been implicated in causing liver diseases. They induce chemical poisoning symptoms and adverse central nervous system disorders, including convulsions and epileptiform seizures. Both are lethal to aquatic organisms at low levels.

(3) Lindane has been shown to cause adverse effects in the reproductive capacity of exposed animals. Exposure to Lindane reduces reproductive capacity and increases incidents of embryonic and fetal mortality.

(4) The Water Quality Criterion for BHC for protection of human health is zero. The levels of exposure to Lindane and to the alpha isomer of BHC which can be expected to

pose a risk of one additional cancer in one million people exposed are 5.4 micrograms per liter (ppb) and 1.6 micrograms per liter (ppb), respectively.

(5) Lindane has been detected in its pure undiluted form in the surface soil at Love Canal, and has been detected in the 96th Street and Colvin Avenue sewer at 50 micrograms per liter (ppb). This level of Lindane found in water used for drinking or recreation, or found in fish or shellfish used for human consumption, would exceed the level posing an incremental cancer risk established in EPA's Water Quality Criteria of one additional cancer in an exposed population of one million, by 9 times.

(6) The alpha isomer has also been detected at the 96th and Colvin Sewer at a level of 3.2 micrograms per liter (ppb). This level of alpha BHC found in water used for drinking or recreation, or found in fish or shellfish used for human consumption, would exceed the level posing an incremental cancer risk established in EPA's Water Quality Criteria of one additional cancer in an exposed population of one million, by 2 times.

F. HEXACHLOROBUTADIENE ("C-46")

(1) Hexachlorobutadiene is a carcinogen. C-46 is toxic to embryos and fetuses through parental exposure. It exhibits effects on the central nervous system manifested as disruptions of motor coordination and causes dizziness. C-46 adversely affects cardiac functions as well.

(2) Due to its carcinogenic potency, there is no safe exposure level for C-46 and the official EPA Water Quality Criterion is zero. The level of C-46 which can be expected to pose a cancer rate of one additional case of cancer per one million exposed people is 77 nanograms per liter (ppt).

(3) Hexachlorobutadiene from Love Canal has contaminated the drinking water of some Love Canal area homes. Two homes sampled showed tap water levels of 142 and 157 nanograms per liter (ppt) of C-46. These levels of C-46 respectively, exceed the level posing an incremental risk of one additional cancer in a million by 1.8 and 2.2 times.

G. TRICHLOROETHYLENE (TCE)

(1) Trichloroethylene (TCE) is a potent central nervous system depressant and can cause severe neurological symptoms such as dizziness, loss of appetite and loss of motor coordination. It produces liver damage at sufficient exposure levels and causes cell mutations and cancer.

(2) The official EPA Water Quality Criterion for TCE is zero. The level of exposure to TCE which can be expected to pose a cancer rate of one additional case of cancer in an exposed population of one million people is 2.1 micrograms per liter (ppb).

(3) Sampling by the Environmental Protection Agency has found TCE in Black Creek, near the homes of Love Canal residents, at a level of 4.1 micrograms per liter (ppb). This level of TCE found in water used for drinking or recreation, or found in fish or shellfish used for human consumption, would exceed the level established in EPA's Water Quality Criteria posing an incremental cancer risk of one additional cancer in an exposed population of one million, by 2 times.

(4) TCE was also detected in each of the surface streams which drain the Love Canal surface waters: Black Creek, Cayuga Creek, and the Niagara River.

27. The chemicals listed in the following subparagraphs have migrated from the landfill. These chemicals can adversely effect human health and the environment. They may now or in the future could be at levels sufficient to affect adversely human health and the environment.

A. Trichlorophenol ("TCP"): TCP is a carcinogen and a toxic chemical. Wastes generated during the production of TCP are contaminated with dioxin. At high exposure concentrations liver and kidney lesions have been detected. Trichlorophenol is persistent in the environment and is bioaccumulative.

B. TOLUENE: Toluene exhibits effects on the central nervous system. In sufficient doses it causes narcosis, addiction and blood chemistry deficiencies.

C. DICHLOROBENZENE: Dichlorobenzene is a carcinogen. It causes toxic effects to the kidney, liver, blood and central nervous system disorders.

D. PHENOL: Phenol is acutely toxic to humans and animals. It acts upon the central nervous system. The predominant acute reaction upon exposure to phenol is sudden collapse and unconsciousness. Detectable symptoms of phenol exposure are discernible after five minutes of exposure. Kidney and liver functions are impaired upon prolonged exposure. Phenol is readily absorbed by humans through all routes of exposure.

28. The following wastes were among those disposed of at the Canal by Hooker: benzoyl chloride, liquid disulfides/monochlorotoluene (LDS/MCT), dodecylmercaptans, thionyl chloride, benzyl chlorides, and sulfides. These

chemicals are either carcinogenic or cause toxic effects. Although these chemicals have not yet been detected migrating from the Canal their very presence at the Canal presents the risk that they may migrate from the site and thereby enter the environment at levels sufficient to affect adversely human health and the environment.

29. The detection of some of the chemicals identified in paragraphs 26 and 27 in one or more environmental medium indicates a great capacity for migration of chemical waste from the site, and suggests that other hazardous chemicals in the site, which were neither looked for nor detected, may have migrated or are migrating from the site in significant amounts.

30. Hooker's chemical wastes are present in soil outside the Canal, in sediment and water of stream beds near the Canal, in sewers running through the Canal area, in the air of the homes around the Canal, and in the breath and blood of people residing in those homes.

How the Migration Occurs

31. The chemicals discussed in paragraphs 26 and 27 have migrated from the site and escaped into the environment in the following manner.

A. At some time after dumping began at the Love Canal, water entering the site mixed with Hooker's wastes. The resulting leachate migrated into adjacent property through the soils and permeated the basement walls of many homes through cracks and pores. The leachate was collected in basement sumps and pumped into the

the 96th and Colvin Sewer System, the 100th and Colvin Sewer System and the 100th and Frontier Sewer System and then to Black Creek and the Niagara River. During this process chemical vapors entered the air in the basements and the living areas as well.

B. Hooker's wastes on the surface of the Canal have mixed with rainwater and water resulting from melting snow and run off the Canal into the 96th and Colvin Sewer System, the 100th and Colvin Sewer System and the 100th and Frontier Sewer System.

C. Hooker's wastes which have entered and continue to enter the 96th and Colvin Sewer System and the 100th and Colvin Sewer System have been discharged and continue to be discharged into Black Creek.

D. Hooker's wastes which have entered and continue to enter the 100th and Frontier Sewer System have been discharged and continue to be discharged into the Niagara River.

E. Several mains or pipes which carry drinking water to residences in the Love Canal area pass through soil contaminated by Hooker's wastes. These mains and pipes are subject to deterioration. Unless the contamination is removed from the soil surrounding these mains and pipes, quantities of Hooker's wastes may be distributed in the drinking water system.

F. Ponded surface water, contaminated with chemicals, has been found in backyards. Residents have noticed

repulsive outdoor odors, especially in warm weather, and vile odors in their basements, particularly after rainfalls. Sump pumps in basements of homes in the Canal area have been damaged by corrosive liquids. Moxious fumes have been detected in several storm sewers.

Impact on Human Health and the Environment

32. Residents of the Canal area have been exposed and continue to be exposed to Hooker's wastes in the ambient air at the Canal and in waters near the Canal.

33. Epidemiological studies of Love Canal area residents which were performed by the New York State Department of Health have shown a significant excess of miscarriages and other adverse health findings in residents near the Canal. In addition, studies performed by Dr. Beverly Paigen of the Roswell Park Memorial Institute in Buffalo conclude that exposure to Love Canal chemicals has resulted in blood and liver abnormalities, disease, disfigurement, and death to present and former Love Canal area residents. Both the New York State and Paigen studies show spontaneous abortion and miscarriages higher than expected, low birth weight and an above average rate of occurrence of congenital birth defects. These are all indications that the area has been affected by the chemicals migrating from the site.

34. The Environmental Protection Agency has estimated the magnitude of cancer risk associated with 30 year residence in the Love Canal area. These estimates were calculated from 1978 air monitoring data for particular Love Canal homes. These risk factors concern nine air contaminants from the landfill which were detected in basements of homes surrounding the landfill. (These nine chemicals are: benzene, alpha benzene hexachloride

(BHC), beta BHC, Lindane, carbon tetrachloride, chloroform, 1,3-hexachlorobutadiene, trichloroethylene, and tetrachloroethylene.) These risk factors also concerned four chemicals detected in soil and surface/groundwater (dichloroethane, 2,3,7,8-tetrachlorodibenzo-para-dioxin (TCDD), polychlorinated biphenyls, 2,4,6-trichlorophenol). All thirteen chemicals detected are carcinogens. Of the nine air pollutants, four (benzene, tetrachloroethylene, trichloroethylene, and chloroform) were detected at levels to suggest that the cancer risks in some of the homes were substantial at the time of detection and that there was a wide variation in risk levels from house-to-house. The cancer risks assessed for these homes range from 1 additional case of cancer above the number otherwise expected to occur in 100 persons, in one home, to 1 additional cancer above the number otherwise expected to occur in 1000 persons for several other homes.

35. In addition to the humans who have been exposed to Hooker's wastes from the Love Canal, animals and aquatic creatures have inhaled or ingested and continue to inhale or ingest defendant's wastes from the ambient air at the Canal and to ingest waters near the Canal. Also, vegetation in the vicinity of the Love Canal is suffering from stress.

Expenditures by Federal and State Government
Necessitated by the Detrimental Effects of the Wastes

36. On August 2, 1978 New York State Department of Health Commissioner Robert P. Whalen issued an order declaring that a public health emergency existed at the Love Canal. On

August 7, 1978, New York Governor Hugh Carey announced that the State would purchase 239 homes in the first ring around the Canal, and President Carter issued an order declaring the situation at Love Canal to be a national emergency, enabling the use of federal funds to assist in the provision of remedies.

37. Since August 7, 1978 the following actions, funded in part by plaintiff, have been taken by the New York State Department of Environmental Conservation ("DEC") and the New York State Department of Health ("DOH").

A. Most of the residents have been evacuated from the houses comprising the first ring around the Canal and relocated.

B. The area has been fenced.

C. An extensive soil and sump sampling program was carried out to define more precisely the extent of leachate migrating from the site.

D. A portable activated carbon treatment unit was set up at the site to treat leachate collected during construction operations. A permanent on-site carbon treatment unit is to be built.

E. Groundwater levels in three deep wells are being monitored, and a fourth well will be sunk.

F. A clay cover has been placed on top of the dump site and a leachate collection system has been constructed around the periphery of the canal.

G. New York State, and United States government authorities either performed or paid for these

remedial measures without any financial contribution from Hooker.

38. In addition to the actions taken by DEC and DOH since August 7, 1978, the New York State Urban Development Corporation has purchased most of the 239 houses that abut the Canal and the 99th Street School is vacated.

39. To date, the United States of America has committed approximately \$7 million in assisting remedial measures necessitated by the escape of Hooker's wastes to the environment. The EPA has estimated that the implementation and performance of remedial measures required to eliminate the hazards resulting from Hooker's deposit of wastes in the Canal will cost \$45,000,000.

Hooker's Conduct with Respect to the Wastes

40. The means by which Hooker deposited its wastes in the Canal took inadequate account of possible environmental dangers. Hooker backed trucks up to the site and directly poured the hazardous contents of the trucks into pits and trenches dug into the Canal. Hooker deposited wastes in water standing in the Canal and deposited chemical wastes in the Canal at a grade level where no impermeable material was present. The aforesaid deposit of waste by Hooker permitted water in the Canal and subsurface water entering the Canal to mix with Hooker's wastes to migrate from the Canal and eventually enter the Niagara River. Hooker did not adequately cover the wastes, install any impermeable barrier, or initiate other measures to prevent this migration.

41. As the manufacturer and disposer of chemical wastes in Love Canal, Hooker knew or should have known the dangers associated with these wastes. Yet Hooker did not adequately secure the landfill when it ended disposal activities there.

42. After Hooker stopped burying its chemical wastes in the Canal, it took no action to maintain the security of the property so that the chemicals placed therein would not escape from the property. Hooker did not place an adequate clay cap or other appropriate seal on the Canal when it ceased using the landfill as a dumpsite. Hooker's failure to place an adequate clay cap or other appropriate seal on the Canal permitted rain water and water resulting from melting snow to enter the Canal, mix with Hooker's wastes, and migrate out of the Canal into the environment. Hooker failed to monitor the property to find out if any chemicals were escaping.

43. After Hooker learned that any cover which may have been placed on the Canal had been breached, Hooker failed to repair the cover in order to prevent further escape of its hazardous chemical wastes from the Canal into the environment.

44. Hooker neither warned residents and developers in the vicinity that contact with materials at the Canal could be injurious, nor did it take any action to prevent future injuries due to exposure of the wastes.

45. The April 1953 deed that transferred the title to the Love Canal from Hooker to the School Board states that the Canal had been filled to grade level with waste products resulting from the manufacture of chemicals. The deed also

contains a provision whereby the Board agreed never to make any claim, suit, action or demand against Hooker for personal injury or property damage related to the presence of the wastes. The deed makes no disclosure to the Board concerning the hazardous and toxic nature of the wastes Hooker had placed in the Canal.

46. At least as early as 1958 the City informed Hooker that children had been injured by material at the Canal. Moreover, on some occasions parents of children injured by contact with material at the Canal called Hooker's Niagara Falls plant dispensary to obtain treatment information. Hooker, however, did not warn anyone living in the Canal vicinity that contact with material at the Canal could be injurious.

47. Hooker knew or should have known at least by 1958, that the absence of an appropriate cover over its wastes in the Love Canal would result in water permeating the landfill, picking up dangerous chemicals in leachate and migrating out of the landfill on and into adjacent property. Hooker, however, took no action to place or replace a cap or other protective cover on the landfill or to warn anyone else to do so. Nor did Hooker take any other action to prevent leachate migration from occurring at the Love Canal landfill.

48. In 1968 Hooker removed 40 truckloads of wastes from the south end of the Canal at the request of a New York State Department of Transportation work crew which, while building a portion of the La Salle Expressway at the southern end of the Canal, apparently dug into the waste. Hooker analyzed a sample of this waste, finding, among other things, benzyl chloride, a carcinogenic chemical which can cause lung,

liver and kidney damage. In addition, Hooker found that the sample was an oily-like residue that burned much like a Fourth of July sparkler.

49. Hooker did not warn State and local roadbuilders of any possible hazard associated with building the road, nor did it take any actions to prevent roadbuilding activities from facilitating the migration of its wastes, nor did it take any action to monitor the migration of its wastes possibly resulting from the roadbuilding activity.

50. Since its removal of wastes from the Canal in 1968, Hooker has taken no actions to prevent the continuing escape of wastes from the Canal.

FIRST CLAIM FOR RELIEF

Section 7003 of the Resource Conservation and Recovery Act, 42 U.S.C. 6973

51. Plaintiff realleges and incorporates by reference herein, the allegations of paragraph 15 through 50.

52. Section 7003 of the Resource Conservation and Recovery Act, 42 U.S.C. 6973, provides that the Administrator of EPA may bring suit for appropriate relief upon receipt of evidence that the handling, storage, treatment, transportation or disposal of any solid or hazardous wastes is presenting an imminent and substantial endangerment to health and the environment.

53. Hazardous waste is defined in RCRA Section Section 1004(5), 42 U.S.C. 6903(5) as:

a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may --

- A. cause, or significantly contribute to an increase in serious irreversible, or incapacitating reversible, illness; or
- B. pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

54. Hooker's wastes disposed of at the Love Canal landfill and Hooker's wastes found migrating from the landfill are hazardous wastes as defined in RCRA Section 1004(5), 42 U.S.C. 6903(5).

55. Hooker placed the hazardous wastes in the Love Canal landfill for purposes of disposal.

56. Hooker's wastes have escaped and, pending verification of the effectiveness of the leachate collection system, may be continuing to escape from the Love Canal landfill into the surrounding environment. Wastes which migrated from the Canal in the past, continue to migrate. Hooker's wastes and the hazardous leachate that is formed by water moving through the various levels of waste in the landfill remain hazardous to human health and the environment after leaving the landfill.

57. Residents of the City of Niagara Falls have inhaled and continue to inhale Hooker's wastes which have been and continue to be emitted into basements of nearby homes and into ambient air at the Canal.

58. The escape and threat of escape into the surrounding environment of hazardous wastes from the Love Canal landfill has endangered, now endangers, and threatens to continue to endanger the health of persons living or working near the site, and endangers the environment itself.

59. The endangerment to human health and the environment presented by the Love Canal landfill is imminent; it threatens to cause or to contribute to adverse effects on human health and the environment.

60. The plaintiff has already committed approximately three million dollars through the Federal Disaster Assistance Administration (now the Federal Emergency Management Agency) and four million dollars through an EPA "demonstration grant" to New York State to help clean up and reduce the imminent and substantial endangerment caused by Hooker's wastes in the Love Canal area and to develop a plan for the long-term containment of the wastes. These funds were justified to protect public property and the public's health and safety.

61. In investigating the extent of the pollution problems at the Love Canal, the plaintiff, through EPA, has incurred a number of expenses in addition to the money which is included in the EPA demonstration grant. For example, EPA has spent over \$75,000 to sample and evaluate a remedial approach for the Love Canal. Further, the plaintiff, through the General Services Administration, has incurred expenses in providing office space and administrative assistance for federal employees working on the investigation of the pollution problems in the Canal area.

62. Evidence will demonstrate the exact amount of money expended by plaintiff in meeting the emergency situation posed by migration of Hooker's wastes from the Love Canal.

63. The escape of Hooker's hazardous wastes from the Love Canal landfill presented an imminent and substantial endangerment to health and the environment in violation of Section 7003 of RCRA. This imminent and substantial endangerment necessitated the immediate commitment of federal funds for purposes of abatement. The plaintiff is entitled to recoup any funds it expended in attempting to abate the imminent and substantial endangerment to health and the environment to which Hooker contributed.

64. The escape of Hooker's wastes from the Love Canal landfill continues to present an imminent and substantial endangerment to human health and the environment in violation of RCRA Section 7003.

SECOND CLAIM FOR RELIEF

Section 504 of the Clean Water Act, 33 U.S.C. 1364

65. Plaintiff realleges and incorporates by reference herein, the allegations of paragraphs 15 through 50.

66. CWA, Section 504, 33 U.S.C. 1364, provides that the Administrator of EPA may bring suit "upon receipt of evidence that a pollution source or combination of sources is

presenting an imminent and substantial endangerment to the health of persons or to the welfare of persons, where such endangerment is to the livelihood of such persons."

67. The Love Canal landfill is a "pollution source" within the meaning of CWA Section 504, 33 U.S.C. 1364.

68. The escape of Hooker's wastes from the Love Canal landfill presented an imminent and substantial endangerment to the health of persons or to the welfare of persons in violation of CWA Section 504, 33 U.S.C. 1364. This imminent and substantial endangerment necessitated the immediate expenditure of federal funds for the purpose of abatement. The plaintiff is entitled to recover any funds it expended in attempting to abate the imminent and substantial endangerment for which Hooker is responsible.

69. The escape of Hooker's wastes from the Love Canal landfill continues to present an imminent and substantial endangerment to the health of persons or to the welfare of persons in violation of CWA Section 504, 33 U.S.C. 1364.

THIRD CLAIM FOR RELIEF

Section 1431 of the Safe Drinking Water Act,
42 U.S.C. 300i

70. Plaintiff realleges and incorporates by reference herein the allegations of paragraphs 15 through 50.

71. SDWA Section 1431, 42 U.S.C. 300i, provides that the Administrator of EPA may bring suit "upon receipt of information that a contaminant which is present in or likely to enter a public water system may present an imminent and substantial endangerment to the health of persons and that appropriate State and local

authorities have not acted to protect the health of such persons."

72. SDWA Section 1401(6), 42 U.S.C. 300f(6), defines "contaminants" as "any physical, chemical, biological or radiological substance or matter in water."

73. Hooker's wastes disposed of in the Love Canal and Hooker's wastes found migrating from the landfill are "contaminants" as defined in SDWA Section 1401(6).

74. SDWA Section 1401(4), 42 U.S.C. 300f(4), defines a "public drinking water system" as:

a system for the provision to the public of piped water for human consumption, if such a system has at least fifteen service connections or regularly serves at least twenty-five individuals.

75. The water mains in the Love Canal vicinity constitute a public drinking water system as defined in SDWA Section 1401(4), 42 U.S.C. 300f(4).

76. Hooker's wastes disposed of in the Love Canal have entered the drinking water supply in the vicinity of Love Canal. Additional quantities of Hooker's wastes are likely to enter the drinking water supply.

77. The allegations incorporated by reference herein in paragraph 70 establish that Hooker's contaminants may present an imminent and substantial endangerment to persons.

78. Remedial efforts initiated by the State of New York, the County of Niagara and the City of Niagara Falls at the Love Canal do not include the injunctive relief requested herein by plaintiff. Thus, further action, not taken by the City, County or State, is necessary to protect the public health of Niagara Falls' residents.

FOURTH CLAIM FOR RELIEF
Public Nuisance

79. Plaintiff realleges and incorporates by reference herein the allegations of paragraphs 15 through 39.

80. The Niagara River is a water of the United States.

81. The Niagara River is an international water, forming a portion of the border between the United States of America and Canada.

82. Between the shoreline on the United States side of the River and its midway point, the River is a territorial water of the United States over which the United States of America exercises exclusive sovereignty and in which the United States of America has an interest.

83. At least 50,000 people reside in the Niagara Falls area. In addition, thousands of United States citizens, travelling in interstate commerce, visit the Niagara Falls area each year.

84. The United States has an interest in restoring and maintaining the chemical, physical and biological integrity of the Niagara River.

85. The United States has an interest in protecting the health of its citizens including those who are travelling in interstate commerce.

86. Hooker owed the United States the duty to design, operate, maintain and monitor security measures properly at the Love Canal dumpsite when it ceased its disposal activities there, in order to insure that its chemical wastes would not migrate from the Canal and contaminate the Niagara River.

87. Hooker owed the United States the duty to

design, operate, maintain and monitor security measures properly at the Love Canal dumpsite when it ceased its disposal activities there, in order to insure that its chemical wastes would not escape from the Canal into the environment and harm the health of United States citizens.

88. The security measures designed by Hooker to insure that its chemical wastes would not migrate from the site were improper.

89. Plaintiff realleges and incorporates by reference herein the allegations of paragraphs 40 through 50.

90. Hooker knew or should have known that its conduct with respect to its wastes would permit those wastes to migrate from the landfill into the environment, thereby substantially harming the Niagara River and threatening to harm substantially the health of United States citizens, including those travelling in interstate commerce.

91. Hooker's acts and failures to act, described in paragraphs 40 through 50 were and are negligent.

92. Hooker's negligent acts and failures to act, described in paragraphs 40 through 50 have caused and continue to cause discharges of carcinogenic, teratogenic, mutagenic and toxic chemicals into the Niagara River.

93. Hooker's negligent acts and negligent failures to act have therefore interfered unreasonably and continue to interfere unreasonably with the United States' interest in restoring and maintaining the chemical, physical and biological integrity of the Niagara River.

94. Hooker's negligent acts and failures to act, described in paragraphs 40 through 50 threaten to cause significant harm to United States citizens who are residents of the Niagara Falls area and United States citizens who are

travelling in interstate commerce.

95. Hooker's negligent acts and failures to act therefore have interfered unreasonably and continue to interfere unreasonably with the United States' interest in protecting the health of its citizens, including those who are travelling in interstate commerce.

96. The chemical wastes described in paragraphs 26 and 27, which have escaped and continue to escape from the Canal, are associated with many diseases and medical problems which can result in permanent incapacity or death.

97. The close proximity of the Canal to residential areas and the Niagara River made it likely that if hazardous wastes escaped from the Canal they would reach the residential areas and the Niagara River.

98. Hooker's disposal of its hazardous chemical wastes created an abnormal risk of harm to persons and property in close proximity to the landfill.

99. Hooker's disposal of its hazardous waste at the Canal has caused and continues to cause the discharge of those wastes to the Niagara River; the Niagara River has been severely.

100. The significant risk that disposal of the chemical wastes which have escaped and continue to escape from the Canal into the environment would cause severe harm to persons and property regardless of the degree of care exercised by Hooker renders the disposal of these wastes an ultrahazardous or abnormally dangerous activity.

101. Hooker's disposal of its chemical wastes in the Canal, an ultrahazardous activity, has caused and continues to cause the discharge of carcinogenic, teratogenic, mutagenic

Hooker's disposal of wastes in the Canal has interfered unreasonably and continues to interfere unreasonably with the United States' interest in restoring and maintaining the chemical, physical and biological integrity of the Niagara River.

102. Hooker's disposal of its chemical wastes in the Canal, an ultrahazardous activity, threatens to cause significant harm to the health of United States citizens who are residents of the Niagara Falls area and threatens to cause significant harm to United States citizens travelling in interstate commerce. Therefore, Hooker's disposal of its chemical wastes in the Canal has interfered unreasonably and continues to interfere unreasonably with the United States' interest in protecting the health of its citizens, including those who are travelling in interstate commerce.

103. Hooker's continuing unreasonable interference with the aforesaid interests of the United States constitutes a public nuisance.

FIFTH CLAIM FOR RELIEF

Section 13 of the Rivers and Harbors Act
of 1899, 33 U.S.C. 407

104. Plaintiff realleges and incorporates by reference herein, the allegations of paragraphs 15 through 50.

105. Section 13, of the Rivers and Harbors Act; otherwise known as the Refuse Act, 33 U.S.C. 407, provides:

It shall not be lawful to throw, discharge, or deposit, or cause, suffer, or procure to be thrown, discharged, or deposited either from or out of any ship, barge, or other floating craft of any kind, or from the shore, wharf, manufacturing establishment, or mill of any kind, any refuse matter of any kind or description whatever other than that flowing from streets and sewers and passing therefrom in a liquid state, into any navigable water of the United States, or into any tributary of any navigable water from which the

same shall float or be washed into such navigable water; and it shall not be lawful to deposit, or cause, suffer or procure to be deposited material of any kind in any place on the bank of any navigable water, on the bank of any tributary of any navigable water, where same shall be liable to be washed into such navigable water, either by ordinary or high tides, or by storms or floods or otherwise, whereby navigation shall or may be impeded or obstructed.

Section 13, 33 U.S.C. 407, then authorizes the Secretary of the Army, acting through the Corps of Engineers, to permit the deposit of any of the above named materials.

106. Black Creek and Cayuga Creek are tributaries of the Niagara River, a navigable water, pursuant to Section 13 of the Rivers and Harbors Act, 33 U.S.C. 407. Cayuga Creek and the Little Niagara River are also navigable waters pursuant to Section 13.

107. Section 13 of the Rivers and Harbors Act, 33 U.S.C. 407, prohibits the deposit of refuse or other material in navigable waters or the placement of such refuse or other material where it will be suffered to be deposited into navigable waters, unless the depositor has obtained a permit from the Secretary of the Army authorizing such deposit.

108. Hooker never applied to the Secretary of the Army for and does not have a permit authorizing the deposit of wastes into navigable waters at the Canal.

109. Hooker is responsible for having placed its wastes where such wastes were likely to and did reach navigable waters. Hooker has violated Section 13 of the Rivers and Harbors Act.

SIXTH CLAIM FOR RELIEF

Section 309 of the Clean Water Act,
33 U.S.C. 1319

110. Plaintiff realleges and incorporates by reference herein, the allegations of paragraphs 15 through 50.

111. Sections 301(a) and 402 of the Clean Water Act, 33 U.S.C 1311(a) and 1342, provide that it is unlawful for any person to discharge pollutants from a point source into waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit issued by EPA or the State.

112. The outfalls of each of three storm sewer systems which underlie the area of the Love Canal landfill are point sources as defined by Section 502(14) of the Clean Water Act, 33 U.S.C. 1362(14).

113. Black Creek, Cayuga Creek and the Niagara River are all waters of the United States pursuant to the Clean Water Act.

114. Hazardous wastes deposited into the Love Canal landfill by Hooker have been discharged by means of the storm sewer systems into waters of the United States.

115. Hooker does not have, and has not applied to the United States Environmental Protection Agency or to the State of New York for, an NPDES permit authorizing the discharge of waste from the Love Canal landfill to waters of the United States.

116. Hooker has discharged, is discharging, and unless prevented from doing so, will continue to discharge hazardous wastes from unpermitted point sources into waters of the United States in violation of the Clean Water Act, 33 U.S.C. 1311(a), 1342.

117. Pursuant to 33 U.S.C. 1319, Plaintiff is entitled to seek injunctive relief to prevent unpermitted discharges from entering waters of the United States and to be awarded civil penalties from Hooker for \$10,000 per day for each day it has violated 33 U.S.C. 1311(a).

PRAYER FOR RELIEF

118. Wherefore, Plaintiff United States of America prays,

A. That the Court declare that Hooker's disposal of wastes in the Love Canal presented and presents an imminent and substantial endangerment to health and the environment and to the health and welfare of persons that required the immediate commitment of federal funds;

B. That the Court issue a mandatory permanent injunction requiring Hooker to do as follows:

1. Hooker shall either perform or pay for performance of any unperformed portion of the remedial plan set forth in EPA's demonstration grant to the State of New York, a copy of which plan is attached hereto and incorporated by reference herein as Exhibit 2.

2. In addition, Hooker shall undertake the following measures:

a. The entire Canal and all property affected by migration of the Love Canal wastes shall be vented in the following manner: (1) crown vents shall be established as determined necessary by EPA on the basis of the rate, composition and volume of gas generated beneath the surface; (2) the vents shall be monitored periodically to determine the composition of the gases being generated; (3) the gases

shall be directed into an air manifold which is connected to the carbon filtration system used to treat leachate.

b. Install and maintain a perpetual monitoring program for all subsurface water. This program shall include monitoring wells on-site and off-site into each water bearing zone, the frequency of monitoring to be established with the approval of the Environmental Protection Agency. Monitoring may be discontinued only if the United States agrees that it is no longer necessary.

c. Construct a grout curtain wall down to bedrock and completely encircling the area affected by migration of Love Canal wastes, as defined by the Environmental Protection Agency. The radius of the grout wall shall extend to all areas in which environmental sampling detects chemicals from the Canal.

d. Within the grout curtain wall, cover the entire area, with a suitable clay cap, graded with top soil and seeded.

e. For any home or residence within the land area affected by the migration of the Canal wastes, provide specific remedies to protect the residents from exposure to leachate from the Canal. These remedies shall include, at a minimum, the withdrawal of any contaminated soil from contact with the structure of the homes, filling of the excavation of removed soil with uncontaminated and impermeable soil, and the restoration of the property with top soil and vegetative cover. This work shall be done in addition to construction of the clay cap described above and the clay cap required by the demonstration grant.

f. Conduct or pay for complete medical

studies of all families in the area of concern to determine the extent to which any person may experience adverse health effects. Hooker shall undertake or pay for a health monitoring program that will track past and present Love Canal residents and their immediate offspring for their lifetimes.

g. In addition to the subsurface water monitoring required by subparagraph "b", install and maintain a perpetual program of periodic sampling of air, soil, streams, and sediment, to determine the effectiveness of the immobilization efforts for Love Canal leachate. As with subsurface water monitoring, this monitoring may be discontinued only with the United States' approval.

h. Pay for the temporary relocation of all residents of the area affected by the migration of the Canal wastes. This relocation shall continue until all environmental indicators show that chemical contamination around all Love Canal homes has been reduced to ambient levels found in nearby unaffected areas. Or, as an alternative to paying for the temporary relocation, purchase all homes within the area affected by the migration of the Canal wastes, and pay the relocation costs of the persons residing in those homes.

i. Clean the sewers, or replace these sewers if necessary, and prevent hazardous wastes from Love Canal from further entering the sewers;

j. Take all other steps necessary to prevent any of its hazardous wastes from reaching Black Creek, Bergholtz Creek, Cayuga Creek, and the Niagara River and also take steps necessary to remove hazardous wastes from these bodies of water;

k. Cease unpermitted discharging of pollutants into the waters of the United States;

1. In perpetuity after closure of the site in accordance with the above requirements, provide necessary maintenance of the site as follows:

(1) Maintain the soil integrity, slope and vegetative cover of the final cover and all diversion and drainage structures;

(2) Maintain the subsurface water and leachate monitoring systems and collect and analyze samples from these systems in the manner and frequency specified in proposed federal regulations set forth at 43 F. R. 59022 (Dec. 18, 1978);

(3) Maintain surveyed bench marks;

(4) Maintain and monitor the gas collection and control system where such a system is installed to control the vertical and horizontal escape of gases;

(5) Restrict access to the landfill as deemed appropriate by EPA on the basis of monitoring reports and the post-closure use of the landfill; and

(6) Perform or pay for any additional remedial measures which EPA determines to be necessary on the basis of monitoring reports.

C. That the Court order Hooker to reimburse the United States of America for all funds expended for remedial actions related to the discharge of Hooker's wastes from the Canal, including but not limited to the seven million dollars in FDAA and EPA assistance funds expended by the United States of America and other funds of at least \$75,000 spent by EPA in identifying and analyzing Hooker's wastes. The exact amount of reimbursement shall be established by an accounting to the Court by the United States of America

at time of trial.

D. With regard to violations of the Clean Water Act, that the Court order Hooker to pay to the Plaintiff a civil penalty of \$10,000 per day for each and every day Hooker has violated the Clean Water Act.

E. To insure the payment of funds to finance the measures ordered in subparagraph "B" that the Court order Hooker either to:

(1) Deposit \$45,000,000 in an annuity trust account for the accomplishment of those measures, or,

(2) Obtain a bond immediately against its insolvency insuring that funds will be available to finance the measures ordered in subparagraphs "B".

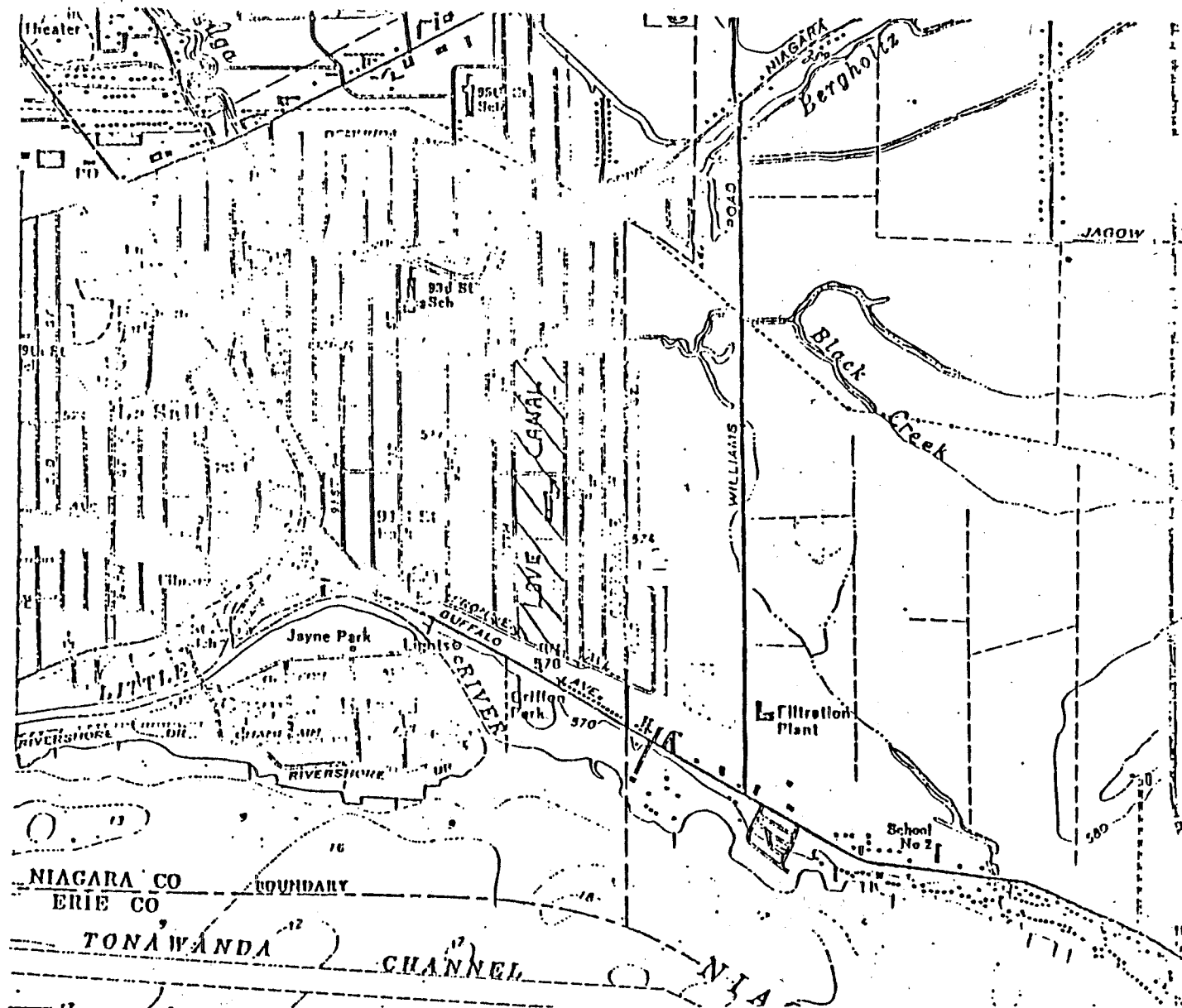
F. That the Court order the City to cooperate with the United States in effectuating any relief ordered against Hooker and to take all measures necessary concerning its own property, to effectuate any relief ordered against Hooker.

G. That the Court order the Niagara County Health Department to cooperate with the United States in effectuating any relief against Hooker, and to take all measures necessary concerning property subject to its power to enter and suppress or eliminate public nuisances to effectuate any relief ordered against Hooker.

H. That the Court order the Board of Education to cooperate with the United States in effectuating any relief ordered against Hooker and to take all measures necessary concerning its own property to effectuate any relief ordered against Hooker.

LOVE CANAL LANDFILL
 NIAGARA FALLS, N.Y.

U.S. GEOLOGICAL SURVEY
 MAP



1. ERIE

I. That the Court retain jurisdiction in this matter until such time as all necessary remedial measures have been effectuated.

J. That the Court award plaintiff its costs of suit herein and any other relief the Court finds just and appropriate.

Dated: December 20, 1979

Respectfully submitted,

James W. Moorman

JAMES W. MOORMAN
Assistant Attorney General
Land and Natural Resources Division
Department of Justice
Washington, D.C. 20530

Richard J. Arcara

RICHARD J. ARCARA
United States Attorney
Buffalo, New York 14202

Barry J. Trilling

BARRY J. TRILLING
CHRISTINE L. HALL
DAVID E. DEARING
Attorneys, Hazardous Waste Section
Department of Justice
9th and Pennsylvania Avenue, N.W.
Washington, D.C. 20530

(202) 633-2800

Jack S. Penca

JACK PENCA
Assistant United States Attorney
Western District of New York
Court & Franklin Streets
Buffalo, New York 14202

OF COUNSEL:

RICHARD J. HAAS
GEORGE SHANAHAN
Environmental Protection Agency