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**Description Notes** Complaint Against Dow Chemical Company, Hercules Inc., and Northwest industries regarding toxic effects of phenoxy herbicides

AMENDED VERIFIED COMPLAINT

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## AMENDED VERIFIED COMPLAINT

The plaintiff, now deceased, by his Legal Representative, individually and on behalf of all those so unfortunate as to have been and now to be similarly situated at risk, not only during this generation but during those generations yet to come, from the toxic effects of exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") and manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC., jointly and severally, individually and collectively, alone or in concert with others, in wanton and reckless disregard of the public health, safety and welfare, sets forth and alleges the following by his attorneys:

### Venue

1. The venue of this action is determined under Title 28 United States Code §§1391(a), 1391(b), 1391(c).

## Jurisdiction

2. Jurisdiction of this Court is invoked under Title 28 United States Code §1331(a).

"The district courts shall have original jurisdiction of all civil actions wherein the matter in controversy exceeds the sum or value of \$10,000 exclusive of interest and costs, and arises under the Constitution, laws or treaties of the United States."

because the amount in controversy herein far exceeds the sum or value of \$10,000 exclusive of interest and costs, and this cause of action arises under the Constitution, laws or treaties of the United States, as more fully and at length hereinafter set forth and alleged.

3. This action arises under Article VI, section 2, of the Constitution of the United States and involves the declaration and interpretation of the rights of the now deceased plaintiff individually, and all those others so unfortunate as to have been or now to be similarly situated, to be free of risk from the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. although contaminated with the synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin"), which rights are retained by said plaintiffs under the Ninth Amendment of the Constitution of the United States

"The enumeration in the Constitution of certain rights, shall not be construed to deny or disparage others retained by the people."

and protected under the "due process" clause of the Fifth Amendment to the Constitution of the United States, and under the "due process" and "equal protection" clauses of the Fourteenth Amendment of the Constitution of the United States.

4. Jurisdiction of this Court is also invoked under Title 28

United States Code §1332.

5. Jurisdiction of this Court is also invoked under Title 42 United States Code §1983:

"Every person who, under color of any statute, ordinance, regulation, custom, or usage, of any State or Territory, subjects or causes to be subjected, any citizen of the United States or other person within the jurisdiction thereof to the deprivation of any rights, privileges or immunities secured by the Constitution and law, shall be liable to the party injured in an action at law, suit in equity, or other proper proceeding for redress."

6. Jurisdiction of this Court is also invoked under Title 28 United States Code §1337,

"The district courts shall have original jurisdiction of any civil action or proceeding arising under any Act of Congress regulating commerce or protecting trade and commerce against restraints and monopolies."

since this proceeding may involve consideration of Title 15 United States Code §§15, 26, 22:

"Any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor in any district court of the United States in the district in which the defendant resides or is found or has an agent, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the cost of suit, including reasonable attorney's fees."

"Any person . . . shall be entitled to sue for and have injunctive relief, in any court of the United States having jurisdiction over the parties, against threatened loss or damage by a violation of the antitrust laws. . . . when and under the same conditions and principles as injunctive relief against threatened conduct that will cause loss or damage is granted by courts of equity under the rules governing such proceedings. . . ."

"Any suit, action, or proceeding under the

antitrust laws against a corporation may be brought not only in the judicial district whereof it is an inhabitant, but also in any district wherein it may be found or transacts business; and all process in such cases may be served in the district of which it is an inhabitant."

The statutes relevant to this proceeding are Title 15 United States Code §1, 22:

"Every . . . combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce among the several States or with foreign nations, is declared to be illegal. . . ."

and Title 15 United States Code §§45(a)(1), 52, 55(a)(1), 55(c):

"\* \* \*(a) It shall be unlawful for any person, partnership, or corporation to disseminate, or cause to be disseminated, any false advertisement.

"(b) The dissemination or the causing to be disseminated of any false advertisement within the provisions of subsection (a) of this section shall be an unfair or deceptive trade act or practice in commerce within the meaning of §45 of this Title."

"The term false advertisement means any advertisement, other than labeling, which is misleading in a material respect; and in determining whether any advertisement is misleading, there shall be taken into account (among other things) not only representations made or suggested by statement, word, design, device, sound, or any combination thereof, but also the extent to which the advertisement fails to reveal facts material in the light of such representations or material with respect to consequences which may result from the use of the commodity to which the advertisement relates under the conditions presented in said advertisement or under such conditions as are customary or usual. . . ."

and Title 15 United States Code §§1125(a), 1121:

"Any person who shall affix, apply, or annex, or use in connection with, any goods or services, or any container or containers for goods . . . any false description or represen-



tation, including words or other symbols tending falsely to describe or represent the same, and shall cause such goods or services to enter into commerce, and any person who shall with knowledge of the falsity of such description or representation cause or procure the same to be transported or used in commerce or deliver the same to any carrier to be transported or used, shall be liable to a civil action . . . by any person who believes that he is likely to be damaged by the use of any such false description or representation."

"The district courts . . . of the United States shall have original jurisdiction . . . of all actions arising under this chapter, without regard to the amount in controversy or to diversity or lack of diversity of the citizenship of the parties."

## The Plaintiffs

7. That the deceased plaintiff PAUL REUTERSHAN was a member of the armed forces of the United States and was exposed to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

8. Upon information and belief, as many as 4.2 million (4,200,000) members of the armed forces of the United States may have been exposed to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

9. That the deceased plaintiff PAUL REUTERSHAN has made a claim for veterans service benefits as a result of disability attributable to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

10. Upon information and belief, other members of the armed forces of the United States have made similar claims for veterans service benefits as a result of disability attributable to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the

corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

11. Upon information and belief, the phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) which were contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") and to which the deceased plaintiff and other members of the armed forces of the United States were exposed were manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. with knowledge of such contamination.

12. That the plaintiff PAUL REUTERSHAN suffered from a malignant condition, and believed that his malignant condition was attributable to his exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) which were contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") as a result of the negligence and carelessness of the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC.

13. That the plaintiff PAUL REUTERSHAN eventually died as a result of a malignant condition, attributable to his exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) which were contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") as a result of the negligence and carelessness of the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC.

14. That the contamination of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated,

advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin"), may contribute to the illness and eventual death of all those so unfortunate as to have been exposed.

15. Upon information and belief, phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") were purchased by public utility companies for use and application throughout the United States of America.

## Other Interested Parties

16. Upon information and belief, the United States Department of Defense, in particular the Veterans Administration and the United States Department of Health, Education and Welfare in particular the Social Security Administration, have been or will be responsible for at least part of the cost of medical care and treatment required by and rendered unto the deceased plaintiff as a result of the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

17. Upon information and belief, the United States Department of Defense, in particular the Veterans Administration and the United States Department of Health, Education and Welfare in particular the Social Security Administration, have been, now are, or will eventually be responsible for at least part of the cost of medical care and treatment required by and rendered unto the other plaintiffs so unfortunate as to have been exposed to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

18. Upon information and belief, the United States Department of Defense, in particular the Veterans Administration and the United States Department of Health, Education and Welfare in particular the Social Security Administration, have made, and may make payments to or on behalf of the deceased plaintiff PAUL REUTERSHAN and/or his family and all those others so unfortunate as to be similarly entitled to

receive such benefits as compensation or benefits for disability or death attributable to the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

19. Upon information and belief, the public utility companies which purchased, used and applied phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") may be liable for damages attributable to the use of such contaminated products.

20. Upon information and belief, the stockholders, rate payers, and subscribers of the services provided by the public utility companies which purchased, used and applied phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") may eventually be required to bear the economic burden resulting from the damages attributable to the use of such contaminated products.

## Class Action

21. This action is brought on behalf of the deceased Plaintiff individually and on behalf of all those so unfortunate as to have been, now to be, or who may be similarly situated at risk, from the toxic effects of exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

22. This action is brought on behalf of the deceased Plaintiff individually and on behalf of all those so unfortunate as to have been and now to be similarly situated at risk, from the toxic effects of exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin"), all of whom are entitled to the protection of their personal health, safety and welfare from injury and damage attributable to the contamination of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

23. This action is brought on behalf of the deceased plaintiff, and on behalf of all those stockholders, rate payers and subscribers of public utility companies which used phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic

chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin"), all of which stockholders, rate payers and subscribers may eventually be called upon to pay for the economic loss and damages attributable to the use of such phenoxy herbicides as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

24. The claims of the deceased plaintiff are representative of the claims of all the members of the class of all those so unfortunate as to be similarly situated, and the actions of all the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC. have substantial effect upon all members of the class exemplified by the deceased plaintiff, thereby making declaratory judgment appropriate and the equitable relief and injunction sought in this action the proper remedy for the class as a whole.

25. That at the present time, the deceased plaintiff, PAUL REUTERSHAN, is one of an indeterminate number of the approximately 4.2 MILLION American servicemen who are at risk from exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") but who are only now beginning to manifest the long-term toxic effects attributable to such exposure.

26. Upon information and belief, it can be reasonably expected that a number of claims similar to those made by the deceased Plaintiff, PAUL REUTERSHAN, will be made for veterans service benefits as a result of disability attributable to and resulting from exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES



INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") and that many of those claims will involve disability attributable to or resulting from exposure to such contaminated phenoxy herbicides.

27. Upon information and belief, it can be reasonably expected that a number of claims similar to those made by the deceased Plaintiff, PAUL REUTERSHAN, will be made for social security disability benefits as a result of disability attributable to and resulting from exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") and that many of those claims will involve disability attributable to and resulting from exposure to such contaminated phenoxy herbicides.

28. The members of the class exemplified by the deceased plaintiff PAUL REUTERSHAN are so numerous as to make it impracticable to bring them all before this court, however, there are substantial questions of law and fact common to the class and common equitable relief on behalf of all members of the class is sought.

29. The members of the class exemplified by the deceased plaintiff PAUL REUTERSHAN are fairly and adequately represented by the legal representatives of said deceased plaintiff and the counsel for said plaintiffs and neither the deceased plaintiff nor the attorneys for the deceased plaintiff have any interests adverse to that of any individual member of the class of all those who might be entitled to the relief sought herein.

## Phenoxy Herbicides

30. Upon information and belief, the effectiveness of the phenoxy plant growth regulators 2,4-dichloro phenoxyacetic acid (2,4-D) and 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) as "herbicides" was determined in mid-1944 field trials at Beltsville and Camp (now Fort) Detrick, Maryland.

31. Although herbicides were not used in tactical military operations in World War II, upon information and belief, a small program for screening potential herbicides for military use continued after that War.

32. Upon information and belief, the phenoxy herbicides such as 2,4-dichloro phenoxyacetic acid (2,4-D) and 2,4,5-trichloro phenoxyacetic acid (2,4,5-T), in particular their salts and esters were manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC., individually and collectively, jointly and severally, alone or in concert with others since the mid-1940s shortly after the end of World War II.

33. Upon information and belief, by 1951, personnel at Fort Detrick had determined that the vegetation control chemicals of choice were mixtures of the butyl esters of the phenoxyacetic acids 2,4-D and 2,4,5-T.

34. Upon information and belief, in 1959, the Crops Division, Fort Detrick, conducted the first large-scale military defoliation effort over four square miles at Fort Drum, New York.

35. Upon information and belief, phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) were introduced into the armed conflict in Vietnam in 1962.

36. Upon information and belief, an estimated 107 million pounds of herbicides were aerially disseminated on 6 million acres in South Vietnam from January 1962 through February 1971. Upon information and belief, approximately 94 percent of all herbicides sprayed in Vietnam were 2,4-D or 2,4,5-T.

37. Upon information and belief, approximately 96% of all the 2,4,5-T so used was contained in a formulation designated Herbicide Orange; the remaining 2,4,5-T was contained, upon information and belief, in formulations designated Herbicide Green, Herbicide Pink, and Herbicide Purple.

38. Upon information and belief, Herbicide Green, Herbicide Pink, and Herbicide Purple contained approximately 40% of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") which was present as a contaminant of the phenoxy herbicide such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T). Upon information and belief, Herbicide Green, Herbicide Pink, and Herbicide Purple were sprayed as defoliants on less than 90,000 acres from 1962 through 1964.

39. Upon information and belief, the 44 million pounds of 2,4,5-T to which American servicemen such as the deceased plaintiff herein and all those others so unfortunate as to be similarly exposed, contained an estimated 368 pounds of the toxic contaminant, 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or dioxin).

40. Upon information and belief, 90% of all the Herbicide Orange which, upon information and belief, contained 38.3 million pounds of 2,4,5-T and 203 pounds of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") were used in defoliation operations on 2.9 million acres of inland forests and mangrove forests of South Vietnam.

41. Upon information and belief, flight mechanics and crew chiefs

were the most likely military personnel exposed to the phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

42. Upon information and belief, in April 1970, the United States Secretary of Agriculture, the United States Secretary of Health, Education and Welfare, and the United States Secretary of the Interior jointly announced suspension of the registration of liquid formulations of 2,4,5-T for use around the home and recreational areas and for use on lakes, ponds and ditch banks.

43. Upon information and belief, through the efforts of the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC., jointly or severally, individually or collectively, alone or in concert with others, registration was not suspended for use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) on range and pasture lands, non-agricultural lands, or in weed and brush control programs on communications and highway rights-of-way.

44. Upon information and belief, the effort to suspend registration of 2,4,5-T in 1970 resulted from published studies indicating that 2,4,5-T was a teratogen, however, upon information and belief, subsequent studies revealed that the teratogenic effects attributable to the phenoxy herbicide 2,4,5-T resulted from a toxic contaminant of the 2,4,5-T, which was identified as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

45. Upon information and belief, the Department of Defense suspended the use of Herbicide Orange shortly after the civilian agencies of government announced suspension of certain uses for the phenoxy herbicide 2,4,5-T.

46. Upon information and belief, in September 1971, the Depart-

ment of Defense directed that the Herbicide Orange in South Vietnam be returned to the United States and that the entire stock be disposed of in an environmentally safe and efficient manner.

47. Upon information and belief, more than 1 million gallons of Herbicide Orange containing phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") were moved from South Vietnam to Johnston Island, Pacific Ocean, for storage (Project PACER IVY) in April 1972.

48. Upon information and belief, during the nine year period from 1961 through 1969, approximately 78 million pounds of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") were used domestically in the United States.

49. Upon information and belief, various techniques for destruction and recovery of the phenoxy herbicides were investigated by the Department of Defense from 1971 to 1974. Upon information and belief, destructive techniques studied included soil biodegradation, high temperature incineration, deep well injection, burial in underground nuclear test cavities, sludge burial and microbial reduction; while techniques to recover a useful product included use, return to manufacturers, fractionation and chlorinolysis. Of the techniques studied, only high temperature incineration was, upon information and belief, sufficiently developed at that time to warrant further investigation.

50. Upon information and belief, in December 1974, the United

States Air Force filed a final Environmental Impact Statement with the President's Council on Environmental Quality for the disposition of Herbicide Orange by destruction aboard a specially designed incineration vessel in a remote area of the Pacific Ocean west of Johnston Island.

51. Upon information and belief, the United States Environmental Protection Agency held a public meeting in February 1975 to consider an ocean incineration permit application submitted by the United States Air Force in accordance with the Marine Protection, Research and Sanctuaries Act of 1972 as amended, (33 U.S.C. §§1401, et seq.)

52. Upon information and belief, during this meeting, testimony was presented which indicated that techniques for chemically reprocessing the herbicide to remove unacceptable quantities of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") might have been developed and the Environmental Protection Agency indicated that the option for reprocessing should be further explored as a means of disposition prior to making a decision to destroy the contaminated herbicides by means of incineration.

53. Upon information and belief, the United States Air Force subsequently undertook an investigation into the feasibility of reprocessing Herbicide Orange and pilot plant studies including selective activated carbon adsorption, were conducted from the Fall of 1975 to July 1976, however, a feasible and environmentally acceptable method of safely disposing of the TCDD-laden activated carbon was not demonstrated. By February 1977, the United States Air Force, upon information and belief, concluded that the option of reprocessing was not feasible, timely or cost-effective since a technique for the ultimate disposal of the activated carbon was not currently available or anticipated in the foreseeable future.

54. Upon information and belief, on 9 March 1977, the United States Air Force requested the Environmental Protection Agency to

convene the public hearings. As a result of the public hearing held on 7 April 1977, the EPA issued a research permit to the USAF to move stocks of Herbicide Orange from the Naval Construction Battalion Center, Gulfport, Mississippi to a designated site in the North Pacific Ocean for the purpose of at-sea incineration in accordance with the provisions of the Marine Protection, Research and Sanctuaries Act of 1972, as amended.

55. Upon information and belief, the vessel contracted for the at-sea incineration of the contaminated herbicides was the Dutch-owned M/T Vulcanus, a ship registered in Singapore and previously used in the North Atlantic Ocean and the Gulf of Mexico to destroy chlorinated hydrocarbon wastes. Upon information and belief, a total of three herbicide loadings were required to incinerate the total stocks of Herbicide Orange: one loading from Gulfport, Mississippi and two loadings from Johnston Island.

56. Upon information and belief, during the summer of 1977 the United States Air Force disposed of 2.22 million gallons of Herbicide Orange by high temperature incineration at sea. This operation, was, upon information and belief, designated Project PACER HO.

57. Upon information and belief, phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") have been and still are manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. as herbicides for application to and upon rights-of-way, forests, hay, pasture and rangelands, farms, lawns and turf.

58. Upon information and belief, the principal civilian use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) is for brush control, while the principal civilian use of phenoxy herbicides such as 2,4-dichloro phenoxyacetic acid (2,4-D) is

for broadleaf weed control in corn and other grains.

59. Upon information and belief, phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") were used by the Department of Defense and other government departments and agencies, quasi-governmental entities, and public utilities.



2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin")

60. Upon information and belief, statements on the fate of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") in the environment are predicated upon the detection of the compound in environmental substrates.

61. Upon information and belief, prior to 1973 the detection limit for the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") in soils was 100 parts per trillion (0.1 parts per billion).

62. Upon information and belief, prior to 1973 the detection limit for the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") in biological tissue was 50 parts per billion (0.05 parts per million).

63. Upon information and belief, the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") is a nonpolar, chlorinated aromatic molecule, without biologically labile functional groups and soluble in water only to the extent of approximately 200 mg/liter.

64. Upon information and belief, the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") has a lower partition coefficient in lipids than certain environmental toxicants such as 1,1,1-trichloro 2,2-bis p-chlorophenyl ethane (DDT).

65. Upon information and belief, the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") is capable of bioaccumulation (being taken up by a living organism and retained).

66. Upon information and belief, the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") has a

half-life in certain soil of at least one year.

67. Upon information and belief, the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") is not biosynthesized by microbial condensation reactions, and, upon information and belief, the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") is not readily metabolized by soil microorganisms.

68. Upon information and belief, volatilization of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") is a major pathway of dissipation for the toxicant from soil and other sites of application.

69. Upon information and belief, the synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") is one of the most potent low molecular weight toxins and teratogens known.

70. Upon information and belief, 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") is the most toxic of the chlorinated dibenzo p-dioxins.

71. Upon information and belief, the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") is a "cellular poison."

72. Upon information and belief, among the toxic effects of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") are to be found:

- hepatic cell necrosis, cirrhosis;
- biphasic decline in body weight;
- increased tissue amyloid;
- thymic atrophy, decrease in thymus weight,
- depletion of lymphocytes in the thymic cortex;
- alopecia;
- subcutaneous edema;
- acne;
- hemorrhage and atrophy of adrenal zona glomerulosa;

increased levels of 8- and 7-carboxyporphyrins in the liver, liver enlargement, progressive necrotic centilobular liver lesions;  
gastric hyperplasia and ulceration;  
impairment of cellular immunity, reduced host defenses;  
prolongation of allographic rejection times;  
depletion of lymphoid organs, suppression of cell mediated immunity in the lymphoid system;  
hematological changes including lymphopenia and thrombocytopenia, hemorrhage, anemia;  
decreased spleen weights;  
hyperplasia of the lymph tissue and bone marrow; hypocellularity of the bone marrow and lymph nodes;  
hydropericardium;  
progressive leukopenia and hypoproteinemia; pancytopenia; and  
increased plasma albumin, total protein, iron, urea nitrogen, cholesterol and triglycerides;

73. Upon information and belief, the embryotoxic, fetotoxic and teratogenic effects of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") include:

cleft palate;  
kidney anomalies, renal hydronephrosis;  
hydrocephalus;  
lack of eyelid formation (open eye);  
clubfoot;  
fetal edema; and  
fetal hemorrhage, intestinal hemorrhage;

74. Upon information and belief, the carcinogenic and tumorigenic effects of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") include:

neoplastic nodules and cholangiocarcinomas of the liver, hepatocellular carcinoma of the liver, carcinoma of the liver;  
carcinoma of the ear duct;  
carcinoma of the kidney;  
metasticizing retroperitoneal histiocytomas;  
hyperplasia of the epithelium of the lung,  
squamous cell carcinoma of the lung;  
squamous cell carcinoma of the hard palate/nasal turbinates;  
squamous cell carcinoma of the tongue;  
altered lymphopoiesis;  
epithelial changes including hypertrophy,

hyperplasia, and metaplasia;

75. Upon information and belief, many chemically nonreactive carcinogens are enzymatically converted to biologically active carcinogens, and the enzyme aryl hydrocarbon hydroxylase (AHH) has been strongly implicated in this process.

76. Upon information and belief, the synergistic action of 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") with 3-methylcholanthrene (MC) has induced cancer in different animal strains in direct proportion to the degree of elevation of the induced hydroxylase activity and the associated cytochrome content.

77. Upon information and belief, the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") is more potent than 3-methylcholanthrene (MC) as an inducer of hydroxylase activity in cultured human lymphocytes.

78. Upon information and belief, the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") may be orders of magnitude more potent on a molar basis than 3-methylcholanthrene (MC) as an inducer of hepatic aryl hydrocarbon hydroxylase (AHH) activity.

79. Upon information and belief, the mutagenic and cytogenic effects of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") include increased incidence of reverse mutations in Escherichia coli and Salmonella typhimurium and chromosomal aberrations.

80. Upon information and belief, the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") may form a physical complex by "intercalation" in DNA, leading to frameshift mutation.

81. Upon information and belief, there have been at least 23

industrial incidents involving over 1,100 human beings, generally adult males, in exposure to the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin"), however, there are, upon information and belief, no significant scientific long term studies of the individuals so exposed.

82. Upon information and belief, in August 1972 waste oil contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") was sprayed on a horse arena in eastern Missouri and 54 of 57 horses exposed to the arena died of an illness characterized by skin lesions, severe weight loss and hepatotoxicity. Birds, dogs, cats, insects, and rodents were also found dead in and around the arena.

83. Upon information and belief, a six year old girl exposed to the waste oil contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") and sprayed on the Eastern Missouri Horse Arena developed epistaxis, gastrointestinal complaints, and severe hemorrhagic cystitis.

84. Upon information and belief, on or about 10 July 1976, in Seveso, Italy, a small town north of Milan, a safety pressure disk ruptured sending a plume of chemicals, including the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") 30 to 50 meters above the factor. Upon information and belief, the vapor cooled and came down over a cone shaped area about 2 kilometers long and 700 meters wide.

85. Upon information and belief, according to the calculations of Givaudan ICMESA, a swiss company and owner of the plant in Seveso, Italy, between 650 GRAMS and 1700 GRAMS of the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") was released.

86. Upon information and belief, according to reports from

aveso, Italy, animals, including birds, rabbits, and chickens were beginning to die two to three days after the accident, and although the temporary and acute effects of the incident have passed, there is no estimate yet of the long term effects.

Defendant THE DOW CHEMICAL COMPANY: Corporate History

87. Upon information and belief, defendant THE DOW CHEMICAL COMPANY was incorporated in Delaware on or about June 11, 1947, and by merger agreement dated June 27, 1947, succeeded to all assets and business of a company bearing the same name which had been incorporated in Michigan on or about May 18, 1897 to build a bleach plant at Midland, Michigan utilizing the waste liquids of Midland Chemical Co.

88. Upon information and belief, on or about March 12, 1900 defendant THE DOW CHEMICAL COMPANY purchased the Dow Process Co. which had been formed in 1895 and upon information and belief, on or about August 1, 1900 said defendant purchased Midland Chemical Co. which had been formed in 1892. Upon information and belief, both Dow Process Co. and Midland Chemical Co. had been founded by Herbert H. Dow.

89. Upon information and belief, on or about August 2, 1928, Jones Chemical Co., Inc. was incorporated in Louisiana to manufacture iodine from the waste brines of Louisiana oil fields. Upon information and belief, its operations were moved to California oil fields in June, 1932, and in 1933 Dow acquired the minority interests in this company. Upon information and belief, in 1934 the name of Jones Chemical Co., Inc. was changed to IO-Dow Chemical Co., Inc., which, upon information and belief, was absorbed by the parent on or about March 31, 1939.

90. Upon information and belief, on or about December 31, 1938 defendant THE DOW CHEMICAL COMPANY by paying 86,988 shares of its common stock at the rate of 3/16ths share of its common stock for each preferred share of Great Western and one share of its common stock for each share of Great Western common acquired Great Western Electro-Chemical Co. which had been formed in 1916.

91. Upon information and belief, on or about June 5, 1942, defendant THE DOW CHEMICAL COMPANY formed Dow Chemical of Canada, Ltd. under Canadian laws.

92. Upon information and belief, on or about February 17, 1943 defendant THE DOW CHEMICAL COMPANY formed the Dow Corning Corp. under Michigan laws jointly with Corning Glass Works.

93. Upon information and belief, on or about December 27, 1951, defendant THE DOW CHEMICAL COMPANY formed Dow Chemical Inter-American, Ltd. and Dow Chemical International Ltd. as wholly-owned subsidiaries under Delaware laws.

94. Upon information and belief, in May, 1952, Dow Chemical International Ltd., a subsidiary of defendant THE DOW CHEMICAL COMPANY formed Asahi-Dow Ltd. jointly with Asahi Chemical Industry Co., Ltd. of Japan.

95. Upon information and belief, on or about August 20, 1954 defendant THE DOW CHEMICAL COMPANY organized Distrene Ltd. jointly with Distillers Co. Ltd. under the laws of Great Britain.

96. Upon information and belief, on or about January 21, 1955, defendant THE DOW CHEMICAL COMPANY formed Nederlandsche Dow Maatschappij N.V., under Netherlands law.

97. Upon information and belief, as of September 1, 1957, for 386,921 shares of its common stock defendant THE DOW CHEMICAL COMPANY acquired the assets of Dobeckmun Co.

98. Upon information and belief, in May, 1958 defendant THE DOW CHEMICAL COMPANY formed Dow Badische Co. for the production of chemicals and synthetic fibers jointly with BASF Overzee N.V.

99. Upon information and belief, in its fiscal year 1959,



defendant THE DOW CHEMICAL COMPANY acquired: Dow Quimica Argentina S.A.; a 93.75% interest in Cosmoclor S.A.I.C.; and a 74% interest in Dow Agrochemicals Ltd., of England (now 100% owned).

100. Upon information and belief, in fiscal year 1959, defendant THE DOW CHEMICAL COMPANY organized Dow Chemical International, S.A., in Venezuela and Dow Chemical A.G., in Switzerland.

101. Upon information and belief, in September 1959, Dow Chemical A.G. a subsidiary of defendant THE DOW CHEMICAL COMPANY formed Plastichimie S.A. jointly with Pechiney S.A., a French chemical and electro-metallurgical firm to construct and operate a multimillion dollar plant at Ribecourt (near Paris, France) for manufacture of polystyrene and saran.

102. Upon information and belief, on or about December 30, 1960, for 533,116 shares of its common stock, defendant THE DOW CHEMICAL COMPANY acquired the assets of Allied Laboratories, Inc., which is, upon information and belief, now operated as a division of said defendant.

103. Upon information and belief, in February, 1965, defendant THE DOW CHEMICAL COMPANY acquired a majority interest in Life, S.A. of Quito, Ecuador, a producer of pharmaceuticals for human and veterinary use.

104. Upon information and belief, in 1965 defendant THE DOW CHEMICAL COMPANY formed Dow Banking Corp. in Zurich, Switzerland as a wholly-owned subsidiary.

105. Upon information and belief, in 1966 defendant THE DOW CHEMICAL COMPANY sold a 50% interest in Dow-Smith, Inc. to A.O. Smith Corp. for cash.

106. Upon information and belief, in 1966, defendant THE DOW

CHEMICAL COMPANY formed Dolco Packaging Corp. jointly with Olson Brothers, Inc., a producer of foamed polystyrene food packages and, upon information and belief, sold that company in 1974 to Olson Brothers.

107. Upon information and belief, in February, 1967, defendant THE DOW CHEMICAL COMPANY acquired a controlling interest in Bio-Science Laboratories, and upon information and belief defendant THE DOW CHEMICAL COMPANY acquired total interest in said company in 1969. Upon information and belief, defendant THE DOW CHEMICAL COMPANY now operates that company so acquired as Bio-Science Enterprises.

108. Upon information and belief, in 1967, defendant THE DOW CHEMICAL COMPANY acquired controlling interest (a substantial interest having been acquired in 1964) in Gruppo Lepetit S.P.A., of Milan, Italy, a pharmaceutical company operating in about 35 countries.

109. Upon information and belief, in 1972, defendant THE DOW CHEMICAL COMPANY acquired Wanda Petroleum Co. from Ashland Oil, Inc.

110. Upon information and belief, in March, 1974, defendant THE DOW CHEMICAL COMPANY acquired 650,000 shares of Magma Power Co. and a warrant to purchase additional shares.

111. Upon information and belief, in July, 1974 defendant THE DOW CHEMICAL COMPANY sold its 45% interest in Banco Cidade De Sao Paulo, Brazil and its 45% interest in Multi-Banking Corp. a commercial bank in Zurich, Switzerland to Swiss Bank Corp.

112. Upon information and belief, in 1974 defendant THE DOW CHEMICAL COMPANY sold 10% of Dow Bank to Fuji Bank, together with an option to acquire an additional 40% of Dow Bank.

113. Upon information and belief, in January, 1975, defendant THE DOW CHEMICAL COMPANY formed three environmental divisions which

together became Hydrosience Associates, Inc.

114. Upon information and belief, in January, 1977 for \$15,250,000 defendant THE DOW CHEMICAL COMPANY sold an interest it held in 151 gas and oil wells and approximately 63,000 undeveloped leasehold acres to Texas Oil & Gas Corp.

Defendant THE DOW CHEMICAL COMPANY: Subsidiaries

115. Upon information and belief, defendant THE DOW CHEMICAL COMPANY functions chiefly as an operating company but, upon information and belief, as of December 31, 1976 defendant THE DOW CHEMICAL COMPANY owned 100% of the voting control of the following firms except where otherwise noted:

- Bio-Science Enterprises, California;
- Bio-Science Hospital & Clinic Laboratories, California;
- Bio-Science Laboratories, California;
- Bio-Science Laboratories, Inc., Illinois;
- Bio-Science Laboratories, Inc., Maryland;
- Bio-Science Laboratories, Inc., Mississippi;
- Bio-Science Laboratories, Inc., Missouri;
- Bio-Science Laboratories, Inc., New York;
- Bio-Science Laboratories, Inc., Pennsylvania;
- Bioscientia Biochemicry Dienstleistungs-Gesellschaft mit beschränkter Haftung, Germany (50%);
- Boston Medical Laboratory, Inc., Massachusetts;
- BLMG, Inc., California;
- Jennings Laboratory, Inc., California;
- Kopp Laboratories Ltd., Canada
- Pathology Associates, Inc., Hawaii
- Photovolt Corp., New York;
- Bronco Pipeline Co., Texas;
- Chemical Transportation Co., Texas;
- Compagnie des Services Dowell Schlumberger, France (50%);
- Cordis Dow Corp., Delaware (50%);
- Dow Badische Co., Delaware (50%);
- Dow Banking Corp., Switzerland (90%);
- Dow Chemical A.G., Switzerland;
- Asahi-Dow Ltd., Japan (50%);
- Dow Chemical A.B., Sweden;
- Dow Chemical Africa (Pty.) Ltd., South Africa;
- Dow Chemical A/S., Denmark;
- Dow Chemical (Australia) Ltd., Australia;
- Dow Chemical Belgium, Belgium;
- Dow Chemical Company Ltd., United Kingdom;

Dow Chemical (Europe) S.A., Switzerland;  
 Dow Chemical Export A.G., Switzerland;  
 Dow Chemical France, France;  
 Dow Chemical Gesellschaft m.b.H., Austria;  
 Dow Chemical GmbH., Germany;  
 Dow Chemical Rheinwerk GmVH., Germany;  
 Dow Chemical Schwinge GmbH., Germany;  
 Dow Chemical Handels-und Verwaltungs-Gesellschaft  
 mbH, Germany;  
 Dow Chemical (Hellas), A.E., Greece;  
 Dow Chemical Iberica, S.A., Spain (98%);  
 Ferro Enamel Espanola S.A., Spain (50%);  
 Dow Chemical (Nederland) B.V., Netherlands;  
 Dow Chemical (Norway) A/S, Norway;  
 Dow Chemical Pacific Ltd., Hong Kong;  
 Dow Chemical S.P.A., Italy;  
 Dow Quimica Argentina S.A., Argentina;  
 Ivon Watkins-Dow Ltd., New Zealand (51%);  
 Petroquimica-Dow S.A., Chile (60%);  
 Dow Chemical Arizona Investment Corp., Arizona;  
 Dow Chemical (Hong Kong) Ltd., Hong Kong;  
 Dow Chemical Inter-American Ltd., Delaware;  
 Dow Chemical International Inc., Panama;  
 Dow Chemical International Inc. of Delaware;  
 Dow Chemical International Ltd., Delaware;  
 Dow Chemical Japan Ltd., Japan;  
 Dow Chemical N.V., Netherlands Antilles;  
 Coral Navigation Co., Inc., Panama;  
 Dow Chemical Korea Ltd., South Korea;  
 Dow Colombiana, S.A., Columbia;  
 Dow Quimica Centro Americana S.A., Costa Rica;  
 Dow Quimica de Colombia, S.A., Colombia;  
 Dow Quimica de Guatemala Limitada, Guatemala;  
 Dow Quimica S.A., Brazil;  
 Indoquim, S.A., Argentina;  
 Korea Pacific Chemical Corp., South Korea (50%);  
 Laboratorios Industriales Farmaceuticos  
 Ecuatorianos LIFE, Ecuador (59%);  
 Laboratorios LIFE de El Salvador S.A., El  
 Salvador;  
 Negocios e Industrias S.A. Neisa, Ecuador;  
 Pacific Chemicals Berhad, Malaysia (51%);  
 Pacific Chemical (Taiwan) Ltd., Republic of  
 China;  
 Pacific Plastics (Thailand) Ltd., Thailand;  
 Productos Quimicos Peruanos S.A., Peru;  
 Propenasa-Produtos Petroquimicos Nacionais S.A.,  
 Brazil (80%);  
 P.T. Pacific Chemicals Indonesia, Indonesia;  
 Tecnica Petroquimica Venezuela C.A., Venezuela;  
 Dow Chemical of Canada, Ltd., Canada;  
 G.S. Blakeslee Equipment Ltd., Canada;  
 Dow Chemical Engineering Ltd., Canada;

Maligne Resources Ltd., Canada;  
 Dow Pipeline Ltd., Canada;  
 Waviskaw Explorations Ltd., Canada (50%);  
 Dow Chemical Overseas Capital N.V., Netherlands  
 Antilles;  
 Dow Chemical Overseas Management Co., Delaware;  
 Dow Chemical (Quebec) Ltd., Delaware;  
 Dow Chemical (Singapore) Private Ltd., Singapore;  
 Dow Corning Corporation, Michigan (50%);  
 Dowell Schlumberger Corp., Panama (50%);  
 Dow Engineering Co., Delaware;  
 Dow Engineering Inc., Michigan;  
 Dow Insurance Ltd., Bermuda;  
 Dow Quimica Chilena S.A., Chile;  
 Petroquimica-Dow S.A., Chile (10%);  
 Dow Quimica Mexicana, S.A. de C.V., Mexico;  
 Terminales Maritimas, S.A. de C.V., Mexico;  
 Generic Pharmaceuticals Inc., Virgin Islands;  
 Gruppo Lepetit S.p.A., Italy (79%);  
 Administration de Participations Etrangeres S.A.,  
 Luxembourg;  
 Laboratorios Lepetit de Mexico, S.A. de C.V.,  
 Mexico;  
 Laboratorios Lepetit S.A. (Brazil), Brazil;  
 Laboratorios Lepetit S.A. (Sapin), Spain (75%);  
 Laboratorios Lepetit S.A.C. (Chile), Chile;  
 Lepetit Belgica S.A., Belgium;  
 Lepetit de Colombia S.A., Colombia;  
 Lepetit de Panama S.A., Panama;  
 Lepetit de Venezuela C.A., Venezuela;  
 - Lepetit (Iran) Private Co. Ltd., Iran (41%);  
 Lepetit B.V., Netherlands;  
 Lepetit Japan Ltd., Japan;  
 Lepetit Pharmaceuticals Ltd., United Kingdom;  
 Lepetit S.A., France (99%);  
 Lepetit S.A.Q.I.y.C., Argentina;  
 Neofarma S.A. C.I.F., Argentina (76%);  
 Lepetit (Thailand) Co. Ltd., Thailand (83%);  
 Lepiran Private Co. Ltd., Iran;  
 Neofarma S.A. C.I.F., Argentina (24%);  
 Sociedade Quimica Lepetit S.A.R.L., Portugal;  
 Lepetit (Iran) Private Co. Ltd., Iran (52%);  
 Hydrosience Associates, Inc., New Jersey;  
 Midland Pipeline Corp., Delaware;  
 Mineracao e Quimica do Nordeste S.A., Brazil;  
 Pacific Chemical (Thailand) Ltd., Thailand;  
 Pinto Pipeline Co., Texas;  
 The Kartridge Pak Co., Iowa (50%);  
 Wanda Petroleum Co., Texas.

Defendant THE DOW CHEMICAL COMPANY: Joint Ventures

116. Upon information and belief, defendant THE DOW CHEMICAL COMPANY engages in a number of joint ventures with other firms.

117. Upon information and belief, Dow Corning Corp. is owned jointly by defendant THE DOW CHEMICAL COMPANY and Corning Glass Works and manufactures silicone products and hyperpure silicone.

118. Upon information and belief, defendant THE DOW CHEMICAL COMPANY and BASF Overzee N.V. jointly own Dow Badische Co. which produces certain organic chemicals and synthetic textile fibers.

119. Upon information and belief, Kartridge Pak Co. is owned jointly by defendant THE DOW CHEMICAL COMPANY with Oscar Mayer & Co. Inc. and produces packaging equipment for aerosol, food, dairy and meat products.

120. Upon information and belief, Cordis Dow Corp., is owned jointly by defendant THE DOW CHEMICAL COMPANY with Cordis Corp. and produces hollow fiber artificial kidneys.

121. Upon information and belief, Defendant THE DOW CHEMICAL COMPANY owns a 30% interest in Oasis Pipe Line Co. which, upon information and belief, was formed in 1971 to construct and operate a natural gas gathering and transmission system.

122. Upon information and belief, defendant THE DOW CHEMICAL COMPANY has significant interests in foreign companies engaged in production and manufacture of various related products.

123. Upon information and belief, in March, 1976 defendant THE DOW CHEMICAL COMPANY was building a complex of 10 Petrochemical plants on an island off the Adriatic Coast in partnership with INA a petrochemical manufacturer which is, upon information and belief, the largest company in Yugoslavia. Upon information and belief, Yugoslavia will have a 51% controlling interest, and the investment of

defendant THE DOW CHEMICAL COMPANY in the project will be approximately \$750,000,000. Upon information and belief, construction of the complex was to begin in 1977 and is scheduled for completion in 1982.

124. Upon information and belief, in March, 1977 defendant THE DOW CHEMICAL COMPANY announced that its subsidiary Dow Chemical Europe and the Saudi Basic Industries Corp. reached an interim agreement to continue investigating an \$800,000,000 joint venture petrochemical complex in Jubail, Saudi Arabia. Upon information and belief, the proposed petrochemical complex is scheduled for completion in the mid-1980's.

125. Upon information and belief, in September, 1973, Dow Chemical (Europe) S.A. established a joint enterprise in Zagreb, Yugoslavia with Organsko Kemijska Industries/OKI/ for manufacture of polystyrene and expandable polystyrene granules. Upon information and belief, the total initial investment by defendant THE DOW CHEMICAL COMPANY will be about \$17,000,000, including technology, land, fixed and working capital and the enterprise will be jointly managed. Upon information and belief, the plant will supply raw material to the Yugoslavian plastics molding industry.

126. Upon information and belief, in September, 1975 a subsidiary of defendant THE DOW CHEMICAL COMPANY, Dow Chemical of Canada, Ltd., together with the Alberta Gas Trunk Line Co. Ltd., and Dome Petroleum, Ltd. reached basic agreement with the Government of Alberta, Canada, for the first phase of a major petrochemical manufacturing project in that province. Upon information and belief, said first phase is expected to involve capital outlays by the joint venturers, including defendant THE DOW CHEMICAL COMPANY on the order of \$1,500,000,000 and would produce products that are forecast to improve Canada's balance of payments position by approximately \$750,000,000 a year in 1979. Upon information and belief, said project meets the provincial government's policies on petrochemical development and no government subsidy will be required. Upon information and belief, the project is based

on the manufacture of ethylene and its derivatives in Alberta from the ethane component of natural gas streams in the province.

127. Upon information and belief, in January, 1977, the government of South Korea authorized two ventures involving defendant THE DOW CHEMICAL COMPANY to obtain \$61,000,000 in loans from a group of foreign banks led by European Banking Corp. to help finance construction of two plants in Korea. Upon information and belief, \$37,000,000 of the total will go to Dow Chemical Korea a subsidiary of defendant THE DOW CHEMICAL COMPANY which is building a \$10,000,000 plant at Yochion, Korea capable of producing approximately 210,000 tons of chlorine and 231,000 tons of caustic soda a year. Upon information and belief, the remaining \$24,000,000 will be used to help finance construction of a 100,000-ton low density polyethylene plant at Yochon, Korea by Korea Pacific Chemical Corp. in which defendant THE DOW CHEMICAL COMPANY has a 50% interest.

128. Upon information and belief, defendant THE DOW CHEMICAL COMPANY owns a 90% interest in Dow Banking Corp., a Swiss bank, and a minority interest in a bank in the Netherlands.

Defendant THE DOW CHEMICAL COMPANY: Business and Products

129. Upon information and belief, Dow was organized in 1897 to extract chemicals from the native brine deposits of central Michigan. From an initial concentration on products derived from these chemicals, the company expanded its activities into the manufacture and sale of chemicals and metals, plastics and packaging, bioproducts and consumer products.

130. Upon information and belief, the principal chemical and metal products manufactured and services supplied by defendant THE DOW CHEMICAL COMPANY, and the major uses thereof, include:

Acetone, which, upon information and belief, is used in the manufacture of methyl methacrylate and solvents.



Antimicrobial agents which, upon information and belief, are used by industry and agriculture for the control of bacteria and fungi.

Aspirin, other pharmaceutical salicylates and fine organics.

Automotive chemicals which, upon information and belief, are used as antifreeze/coolants, brake fluids, and de-icing products.

Caustic soda which, upon information and belief, is used in production of soaps, chemical intermediates, fibers, alumina, paper, and petroleum products.

Chlorine and hydrochloric acid which, upon information and belief, are used primarily in the products manufactured, formulated, advertised, promoted, marketed and sold and services furnished by defendant THE DOW CHEMICAL COMPANY.

Chlorobenzenes which, upon information and belief, are used in agricultural intermediates, synthetic rubber, chemical intermediates, and textile dye carriers.

Upon information and belief, Dow Industrial Service provides services, technology, and products for cleaning industrial facilities.

Upon information and belief, Dowell Division of defendant THE DOW CHEMICAL COMPANY provides specialized servicing of oil and gas wells, including fracturing, acidizing, and cementing.

Epichlorohydrin which, upon information and belief, is used in the manufacture of epoxy resins and specialty chemicals.

Ethanolamines and isopropanolamines which, upon information and belief, are used in natural gas purification and as an intermediate in the manufacture of detergents, surfactants, and cosmetics.

Ethylene amines which, upon information and belief, are used in chelating agents, oil additives, paper resins, epoxy curing, and agricultural intermediates.

Ethylene dibromide which, upon information and belief, is used in leaded gasolines and as a soil fumigant.

Ethylene dichloride which, upon information and belief, is used primarily in products manufactured, formulated, advertised, promoted, marketed and sold by defendant THE DOW CHEMICAL COMPANY.

Ethylene and propylene glycols and polyglycols which, upon information and belief, are used in antifreeze, polyester fibers & resins, plasticizers, lubricants, humectants, mold release agents, and personal care products.

Ethylene and propylene oxides which, upon information and belief, are used in the production of glycols, urethane polyols and industrial polyglycols, alkanolamines, glycol ethers, and surfactants.

Flame retardent chemicals which, upon information and belief, are used in flame-retarding plastics, fabrics, and other combustibles.

Flocculents and polyacrylamides which, upon information and belief, are used in mining, paper and food industries, and for water and wastewater clarification.

Glycerine which, upon information and belief, is used in the manufacture of alkyd resins, cellophane, dynamite, food, and tobacco products.

Glycol ethers which, upon information and belief, are used as solvents, hydraulic fluids, penetrants, and chemical intermediates.

Heat transfer products which are, upon information and belief, organic fluids thermally stable at high temperatures and low pressure.

Highway products particularly calcium chloride which, upon information and belief, is used for ice and dust control, concrete roadway insulation, paving systems, pavement expansion material, and bridge median barrier.

Upon information and belief, Hydrosience Inc. provides complete package engineering services including base surveys for industrial and municipal pollution control, waste treatment, conceptual design for wastewater treatment plants, and environmental assessment of streams, estuaries, rivers, and other receiving waters.

Inorganic bromides which, upon information and belief, are used in production and processing of film and fibers.

Ion exchange resins which, upon information and belief, are used in water conditioning, demineralization, industrial processing, and treatment of radioactive and other liquid wastes.

Magnesium extrusions, sheet and plate which, upon information and belief, are used in commercial, industrial, and military products.

Magnesium ingot which, upon information and belief, is used in alloying aluminum, desulfurizing and modularizing ferrous products, cathodic protection, die casting, chemical and structural applications, metal reductant and production of magnesium sheet for the printing industry.

Mining products which, upon information and belief, include frothers, flotation agents, and metal collectors.

Methylcellulose which, upon information and belief, is used in a variety of industries as a thickener, suspending agent, protective colloid, binder, stabilizer, film former, and sizing.

Upon information and belief, defendant THE DOW CHEMICAL COMPANY, through its divisions, subsidiaries and joint ventures provides services, technology and products for cleaning of nuclear facilities.

Olefins and aromatics, including ethylene, propylene, butadiene, and benzene which, upon information and belief, are used primarily in products manufactured, formulated, advertised, promoted, marketed and sold by defendant THE DOW CHEMICAL COMPANY.

Organic bromides which, upon information and belief, are used in production of chemical and fiber intermediates.

Pharmaceutical bromides and methoxyflourane anesthetic.

Phenol which, upon information and belief, is used in making phenolic resins and as an intermediate for nylon, weed killers, fungicides, plasticizers, oil additives and detergents, and

dyeing intermediate.

Process products which, upon information and belief, include catalysts and membrane systems.

Pusher chemicals which, upon information and belief, are used to enhance oil recovery.

Solvents including perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, methylene chloride, and propylene dichloride which, upon information and belief, are advertised, promoted, marketed and sold by defendant THE DOW CHEMICAL COMPANY for drycleaning, metal degreasing, cold cleaning, aerosol and paint removers, among other promoted uses.

Surfactants and chelating agents which, upon information and belief, are used in detergents, disinfectants, photography, textiles, polymerization, water treatment formulations, and agricultural applications.

Urethane polyols and isocyanates which, upon information and belief, are used in the manufacture of structural and cushioning urethane foams.

Upon information and belief, Wanda Petroleum Co., a subsidiary of defendant THE DOW CHEMICAL COMPANY engages in trading and marketing petroleum products.

131. Upon information and belief, the principal plastic and packaging materials and products manufactured, formulated, advertised, promoted, marketed and sold by defendant THE DOW CHEMICAL COMPANY include:

Coating materials such as epoxy, vinyl ester and other resins which, upon information and belief, are used in coatings, reinforced plastics, laminates and electronic devices; latexes which, upon information and belief, are used by the textile, paper and packaging industries; and electroconductive resins which, upon information and belief, are used for paper coating.

Construction materials such as polystyrene foam insulation for construction and structural insulating panels.

Molding and extrusion materials such as

polystyrene, low and high density polyethylene, chlorinated polyethylene, saran, acrylonitrile-butadiene-styrene (ABS), styrene-acrylonitrile (SAN) and other plastic resins which, upon information and belief, are used in injection molding, blow molding and extrusion processes for fabrication of articles used in the automotive, appliance, packaging, wire and cable, housewares, toy, and construction businesses.

Monomers and coating materials such as styrene, vinyl toluene, divinylbenzene, vinyl chloride, vinylidene chloride and other monomers which, upon information and belief, are used in producing polymer and copolymer coatings and resins.

Packaging materials such as polystyrene film for envelope windows, packaging and disposable dinnerware; saran-containing films for commercial packaging; polyethylene films for packaging, industry, and agriculture; and expandable polystyrene foam strands for loose-fill packing.

Plastic foams such as polystyrene foam for insulation, flotation, and floral craft uses; and polyethylene foam for cushion packaging, flotation, and recreational applications.

Plastic lined piping products including, upon information and belief, pipe, fittings, valves and accessories for corrosive piping systems.

132. Upon information and belief, defendant THE DOW CHEMICAL COMPANY has manufactured, formulated, advertised, promoted, marketed and sold "Bioproducts" and "consumer" products, in the following areas, and is continuing so to do:

Agricultural products which, upon information and belief, include weed, brush and grass killers; nitrogen stabilizers; soil, space and grain fumigants; insecticides; nematocides; fungicides; nutritional, and feed additive products for animals and poultry.

Consumer products which, upon information and belief, include SARAN WRAP and HANDI-WRAP plastic household film, DOW Bathroom Cleaner, DOW Oven Cleaner, ZIPLOC bags, AZTEC sun care products.

Health care products and services including

pharmaceutical product such as RIFADIN and RIFOCIN which, upon information and belief, are proprietary antibiotics, and other antibiotic formulations; PLASIL, a digestant, EQUILID an anti-depressant; cough and cold preparations; LORELCO, a cholesterol reducing agent; diagnostic reagents and equipment.

Upon information and belief, Bio-Science Enterprises, a wholly-owned and subsidiary of defendant THE DOW CHEMICAL COMPANY provides diagnostic services to the medical profession.

Defendant THE DOW CHEMICAL COMPANY: Principal Properties

133. Upon information and belief, defendant THE DOW CHEMICAL COMPANY and its wholly and principal partly owned companies have plants and holdings which include 47 manufacturing locations in 22 of the United States, located, upon information and belief,

in Arkansas at Magnolia and Russellville;  
in California at Concord, Costa Mesa, Fresno, Pittsburg, Torrance, and Van Nuys;  
in Colorado at Denver;  
in Connecticut at Gales Ferry and Trumbull;  
in Florida at Miami;  
in Georgia at Dalton, Gainsville and Sylvania;  
in Illinois at Joliet;  
- in Indiana at Indianapolis and Zionsville;  
in Iowa at Davenport;  
in Kentucky at Carrollton and Elizabethtown;  
in Louisiana at Breaux Bridge, Napoleanville, and Plaquemine;  
in Michigan at Bay City, Hemlock, Ludington and Midland;  
in Missouri at Cape Girardeau, and Peveley;  
in New Jersey at Carteret;  
in New York at New York City;  
in North Carolina at Boonville, Greensboro, and Mebane;  
in Ohio at Findlay, Hebron and Ironton;  
in Oklahoma at Tulsa;  
in Pennsylvania at Royersford;  
in South Carolina at Allendale and Anderson;  
in Texas at Freeport and Oyster Creek; and  
in Virginia at Willisamsburg.

134. Upon information and belief, defendant THE DOW CHEMICAL COMPANY and its wholly and principal partly owned companies have plants and holdings which include 31 manufacturing locations in 13

European countries located, upon information and belief,

in Belgium at Seneffe and Tessenderio;  
in France at Drusenheim and Seclin;  
in Germany at Rheinmuenster, Munich, and  
Stade;  
in Greece at Lavrion;  
in Iran at Tehran;  
in Italy at Anagni, Brindisi, Cinisello,  
Garessio, Livorno, Milan, and Martellago;  
in Morocco at El Jdida;  
in The Netherlands at Amsterdam, Rotterdam,  
Terneuzen, and Roden;  
in Portugal at Lisbon;  
in Spain at Bilbao, Madrid, and Tarragona;  
in Sweden at Norrkoping;  
in United Kingdom at King's Lynn, England, and  
Barry, Wales;  
in Yugoslavia at Zagreb.

135. Upon information and belief, defendant THE DOW CHEMICAL COMPANY and its wholly and principal partly owned companies have plants and holdings which include 19 manufacturing locations in 6 Latin American countries, located, upon information and belief,

- in Argentina at Buenos Aries and San Lorenzo;  
in Brazil at Aratu, Franco da Rocha, Guaruja,  
and Sao Paulo;  
in Chile at Concepcion and Santiago;  
in Colombia at Cartagena and Bogata;  
in Ecuador at Quito; and  
in Mexico at Cuernavaca, Mexico City, and San  
Martin.

136. Upon information and belief, defendant THE DOW CHEMICAL COMPANY and its wholly and principal partly owned companies have plants and holdings which include 14 manufacturing locations in four Provinces of Canada, located, upon information and belief,

in Alberta at Fort Saskatchewan and Two Hills;  
in British Columbia at Delta;  
in Ontario at Arnprior, Cambridge, Cornwall,  
Kitchener, Sarnia, Toronto, Mississauga, and  
Richmond Hill; and  
in Quebec at Varennes.

137. Upon information and belief, defendant THE DOW CHEMICAL COMPANY and its wholly and principal partly owned companies have plants and holdings which include 29 manufacturing locations in 9 Pacific countries, located, upon information and belief,

- in Australia at Altona, Brisbane, Blacktown, Cairns, Mackay, Newcastle, and Smithfield;
- in Hong Kong; - Hong Kong;
- in India at Bombay and Nira;
- in Indonesia at Medan;
- in Japan at Ashigara, Hyuga, Totsuka, Chiba, Kanuma, Kawasaki, Mizushima, Nobeoka, Sapporo, Suzuka, and Ageo;
- in Korea at Ulsan;
- in Malaysia at Kuala Lumpur;
- in New Zealand at New Plymouth; and
- in Thailand at Bangkok.



Defendant HERCULES INCORPORATED: Corporate History

138. Upon information and belief, defendant HERCULES INCORPORATED was incorporated in Delaware on or about October 18, 1912, as Hercules Powder Co. pursuant to judicial decree in a suit brought by the United States of America against E.I. du Pont de Nemours and others in which suit Atlas Powder was also segregated from du Pont.

139. Upon information and belief, defendant HERCULES INCORPORATED adopted its present name on or about May 1, 1966. Pursuant to the provisions of the decree in the suit brought by the United States of America, all of the outstanding \$6,500,000 of bonds and 65,000 shares of stock at par value \$100 were issued to du Pont which immediately distributed all of the stock and one-half of the bonds to its common stockholders. The remaining bonds were, upon information and belief, disposed of shortly thereafter by du Pont.

140. Upon information and belief, defendant HERCULES INCORPORATED started in 1913 as a single-department, single-technology, single-concept company. Its administration consisted of a president, vice president and general manager, a vice president in charge of sales, an assistant general manager, and a secretary-treasurer. Little change occurred until 1928, when some changes in organization were made to improve the handling of the expanding business.

141. Upon information and belief, during this period from 1913 to 1928, defendant HERCULES INCORPORATED broadened its technological base by branching off from explosives into cellulose and naval stores. As these new businesses were acquired and absorbed, said defendant operated them as separate business entities, upon information and belief, forming three operating departments in 1928 and establishing an Executive Committee and a Finance Committee to monitor the businesses and tie them together under the office of the president.

142. Upon information and belief, over the next 50 years, this

basic structure was followed by defendant HERCULES INCORPORATED with the addition of new departments as new businesses were acquired or developed and the merger or dissolution of other departments and operating groups was required.

143. Upon information and belief, the defendant HERCULES INCORPORATED made some changes in operations as it became a multinational corporation.

144. Upon information and belief, in December, 1956, defendant HERCULES INCORPORATED diversified its operations by acquiring Huron Milling Co. of Harbor Beach, Michigan with annual sales of approximately \$12,000,000 through the production and sale of hydrolyzed vegetable proteins, proteins and wheat starches among other products.

145. Upon information and belief, in January, 1959, defendant HERCULES INCORPORATED acquired Young Development Laboratories of Rocky Hill, New Jersey, producers of filament-wound glass fiber and reinforced plastic which company was subsequently sold, upon information and belief, in 1966.

146. Upon information and belief, in April, 1960 for 509,802 of its class A shares defendant HERCULES INCORPORATED acquired the assets of Imperial Color Chemical & Paper Corp. of Glens Falls, New York a producer of pigments and quality wallpaper.

147. Upon information and belief, defendant HERCULES INCORPORATED also acquired during April, 1960, Nitroform Agricultural Chemical Co. of Woonsocket, Rhode Island.

148. Upon information and belief, in December, 1961 defendant HERCULES INCORPORATED acquired Reasor-Hill Corp. of Jacksonville, Arkansas, producers of herbicides.

149. Upon information and belief, in March, 1962 defendant

HERCULES INCORPORATED sold the wallpaper business of Imperial Color & Chemical Department.

150. Upon information and belief, in exchange for 110,309 shares of its \$1.65 cumulative convertible class A shares and 32,820 shares of its common stock, respectively, in 1964 defendant HERCULES INCORPORATED acquired Haveg Industries, Inc. and MHD Research, Inc.

151. Upon information and belief, for 280,495 shares of its reacquired common stock in 1966, defendant HERCULES INCORPORATED acquired the net assets of Crystal Preforming & Packaging, Inc., B.F. Drakenfeld & Co., Inc. and Lincomatic Industries, Inc.

152. Upon information and belief, in 1967 defendant HERCULES INCORPORATED acquired Aquatrol, Inc. of Texas, a company which specializes in products and engineering services for the treatment of industrial processed water.

153. Upon information and belief, in July, 1969 defendant HERCULES INCORPORATED acquired Radiant Color Company a producer of fluorescent pigments and related products.

154. Upon information and belief, in 1969 defendant HERCULES INCORPORATED acquired Philip Bock Co., Inc.

155. Upon information and belief, in March, 1970 defendant HERCULES INCORPORATED acquired an environmental engineering firm, Black Crow and Eidsness, Inc. of Gainesville, Florida.

156. Upon information and belief, in 1970 defendant HERCULES INCORPORATED acquired Modular Structures, Inc.

157. Upon information and belief, on or about April 1, 1970 defendant HERCULES INCORPORATED sold its 50% interest in Hystron Fibers, Inc. to Farbwerke Hoescht A.G.

158. Upon information and belief, in early 1972, for about \$6,500,000 in cash, defendant HERCULES INCORPORATED acquired from AVC Corp. a group of their overseas subsidiaries. Upon information and belief, 100% of the stock of Oceanchem International A/S of Denmark, Kedea A.B., of Sweden and Genu Products Canada Ltd. were also involved in the sale.

159. Upon information and belief, in July, 1972 defendant HERCULES INCORPORATED acquired AB Purac of Lund, Sweden and its German subsidiary AdKaMatic G.m.b.H. of Giessen and the water treatment assets of Mibis AB, Sweden.

160. Upon information and belief, in December, 1972 defendant HERCULES INCORPORATED acquired Artizans, Inc. of Calhoun, Georgia, a carpet dyeing and finishing firm.

161. Upon information and belief, in March, 1973 for approximately \$1,250,000, Haskon Inc., a subsidiary of defendant HERCULES INCORPORATED acquired Seaboard Manufacturing Laboratories, Inc., a subsidiary of Universal Container Corp.

162. Upon information and belief, on or about May 31, 1973 in exchange for 480,000 shares of its common stock, defendant HERCULES INCORPORATED acquired Pennsylvania Industrial Chemicals Corp.

163. Upon information and belief, on or about October 1, 1973 for 732,587 shares of its common stock, defendant HERCULES INCORPORATED acquired Polak's Frutal Works, of Middletown, New York.

164. Upon information and belief, on or about November 15, 1973, for 70,977 shares of its common stock, defendant HERCULES INCORPORATED acquired Scott-Wise Industries of Delaware, Inc.

165. Upon information and belief, at the start of the year 1977, defendant HERCULES INCORPORATED consisted of five domestic operating

departments and three geographic operating units. Upon information and belief, the international entities, representing an investment of \$278 million, constituted a significant portion of the overall business of defendant, HERCULES INCORPORATED.

166. Upon information and belief, a companywide reorganization was announced by defendant HERCULES INCORPORATED in fourth quarter 1977, which, according to the 1977 annual report of said defendant HERCULES INCORPORATED was the first fundamental reorganization in nearly 50 years of operation, although considerable restructuring had taken place during that period.

167. Upon information and belief, the multiplicity of products manufactured, formulated, advertised, promoted, marketed and sold by defendant HERCULES INCORPORATED led to a diverse organization in which departmental sales organizations frequently overlapped.

168. Upon information and belief, several departments of the defendant HERCULES INCORPORATED used the same plants for the manufacture, formulation and distribution of products.

169. Upon information and belief, an "office of the president" has been formed by the Board of Directors of defendant HERCULES INCORPORATED made up of the president, the chairman of the Board, and two senior vice presidents.

170. Upon information and belief, other senior vice presidents of the defendant HERCULES INCORPORATED have assumed the duties of managing the operations of said defendant with one in charge of domestic operations and the other in charge of international operations, including the three international operating divisions - Hercules Europe, Hercules Americas, and Hercules Far East.

171. Upon information and belief, seven new vice presidents were named as a part of the reorganization of defendant HERCULES

INCORPORATED and the positions of general manager and assistant general manager of five operating departments were eliminated.

Defendant HERCULES INCORPORATED: Subsidiaries

172. Upon information and belief, defendant HERCULES INCORPORATED functions chiefly as an operating company but as of December 31, 1976, upon information and belief, owned 100% (except as otherwise noted hereinafter) of the voting control of the following subsidiary enterprises:

Black, Crow & Eidsness, Inc. of Florida  
Blackhawk Resin & Chemical Co. of Georgia  
Ceratonía S.A. of Spain  
Cesalpinia, S.p.A. of Italy  
Genu Products Canada Ltd. of Canada  
Haveg Industries, Inc. of Delaware  
Hercofina (75%)  
Hercofood Europe A/A Denmark  
Hercoform, Inc. of Delaware  
Hercoform Marketing, Inc. of Delaware  
Hercules Andino, S.A. of Venezuela  
Hercules Bahamas Corp. of Delaware  
Hercules B.V. of Netherlands  
Hercules Canada Ltd. of Canada  
Hercules Chemical Corp. of Delaware  
Hercules Chemicals N.V. of Belgium  
Hercules do Brasil Produtos Químicos Ltda. of Brazil  
Hercules Europe, S.A. of Belgium  
Hercules Far East Ltd. of Japan  
Hercules France, S.A. of France  
Hercules G.m.b.H. of Germany  
Hercules Industries, Inc. of Puerto Rico  
Hercules International Finance Corp. of Delaware  
Hercules International Trade Corp. Ltd. of Bahamas  
Hercules Kemiska Aktiebolag of Sweden  
Hercules Overseas Corp. of Delaware  
Hercules Powder Co. of Delaware  
Hercules Powder Co. Ltd. of England  
Hercules Taiwan Co. Ltd. of Taiwan  
Hercules Trading Corp. of Delaware  
Herdata, Inc. of California  
Imperial Paper & Color Corp. (Canada) Ltd. of Canada  
Kedea, A.B. of Sweden  
Maxchem Holding, A.G. of Switzerland  
Organa Trust of Liechtenstein  
OY Hercofina AB of Finland  
Patex Holding G.m.b.H. of Austria  
Pennsylvania Industrial Chemical Corp. of Delaware  
PFW Inc. of Delaware

Picco, S.A. of Switzerland  
Polak's Frutal Works Inc. of New York  
Quimica Hercules S.A. de C.V. of Mexico  
Rohe S.A. of Spain  
Technical Packaging B.V. of Netherlands  
Ten Horn Pigment Chemie B.V. of Netherlands

173. Upon information and belief, defendant HERCULES INCORPORATED also owns partial interests in the following companies:

80% interest in Bewoid Italiano & Callegaro S.p.A. of Italy  
59% in Coon Canyon Irrigation Co. of Utah  
60% in Australian Chemical Holdings, Ltd.  
51% in Pakistan Gum Industries, Ltd. of Pakistan  
60% in Hercules De Centroamerican, S.A. of Nicaragua  
50% in Abieta Chemie GmbH of Germany  
Adria Laboratories, Inc. of Delaware  
DIC-Hercules Chemicals of Japan  
Holden Vale Manufacturing Co., Ltd. of England  
Nelson Acetate of England; Neofil S.p.A. of Italy  
Hercor Chemical Corp. of Puerto Rico  
St. Croix Petrochemical Corp. of Virgin Islands  
Texas Alkyls, Inc. of Delaware  
Organa Commercial Trust, of Liechtenstein  
Hind Gums Ltd. of India.

Defendant HERCULES INCORPORATED: Joint Ventures

174. Upon information and belief, in March, 1963, defendant HERCULES INCORPORATED and Teijin Ltd. of Osaka, Japan formed Teijin Hercules Chemical Co. Ltd. of Kubushiki Kaisha, to manufacture dimethyl terephthalate a chemical which is used in the manufacture of a polyester fiber for textiles, fabrics, tire cord and other items. Upon information and belief, a 30,000,000 lb. a year plant was completed in 1964, at Matsuyama, an island of Shikoku, Japan. Upon information and belief, a second plant for the manufacture of dimethyl terephthalate was completed in 1968. Upon information and belief, a third dimethyl terephthalate plant started operations in September of 1970 increasing the DMT capacity of the venture to approximately 180,000 metric tons. Upon information and belief, the share of defendant HERCULES INCORPORATED in the joint venture is 49%.

175. Upon information and belief, in February, 1965, defendant

HERCULES INCORPORATED and Commonwealth Oil Refining Co., Inc., jointly formed a Puerto Rican company, Hercor Chemical Corp., to build para-xylene production facilities at the Guayanilla Bay facility of Commonwealth Petrochemicals, Inc. which supplies feedstock and other process ingredients. Upon information and belief, in October, 1972, defendant HERCULES INCORPORATED announced plans to more than double plant capacity to 525,000,000 pounds per year. Upon information and belief, in 1976 defendant HERCULES INCORPORATED sold a 25% interest in Hercor Chemical Corp.

176. Upon information and belief, in 1965 Hercules de Centro-america, S.A., jointly owned by defendant HERCULES INCORPORATED and Instituto de Fomento Nacional, the Nicaraguan Government development agency, was organized to produce toxaphene insecticide for sale in the five nation area of the Central American Common Market.

177. Upon information and belief, in February, 1968 Herdillia Chemicals Ltd., jointly-owned by defendant HERCULES INCORPORATED BP Chemicals (UK) Ltd., EID-Parry of India and other Indian Investors, completed a new plant near Bombay, India, to produce phenol, phthalic anhydride, acetone, diacetone alcohol, and other petrochemical products to be used in plastics, paints, fungicides, and other commercial products.

178. Upon information and belief, in 1968 defendant HERCULES INCORPORATED acquired a 40% interest in Dawood Hercules Chemicals Ltd., Pakistan which was formed for production of urea fertilizer at a plant near Lahore with annual production capacity of 345,000 tons.

179. Upon information and belief, in 1969 defendant HERCULES INCORPORATED and Montecatini, S.A. of Italy formed Neofil S.p.A. which manufactures polyolefin fibers at Terni, Italy.

180. Upon information and belief, in March, 1973, defendant HERCULES INCORPORATED announced that a Taiwanese group planned to sign



a contract with said defendant HERCULES INCORPORATED for a \$15,000,000 polypropylene plant on Taiwan, in which facility defendant HERCULES INCORPORATED will have a 40% interest. Upon information and belief, three Taiwanese investing groups will hold the remaining 60% in the joint venture.

181. Upon information and belief, in April, 1973 defendant HERCULES INCORPORATED and Mexican Investment interests formed Petrocel, S.A. Upon information and belief, defendant HERCULES INCORPORATED is a 40% shareholder and the Mexican interests own 60%. Upon information and belief, Petrocel has built a multimillion dollar plant at Altamira, Tamaulipas, Mexico for the production of DMT (dimethyl terephthalate) and TPA (terephthalic acid) with a combined production capacity of 137,000 metric tons. Upon information and belief, both products used in the manufacture of polyester film and polyester fiber.

182. Upon information and belief, in February, 1974 defendant HERCULES INCORPORATED and a U.S. affiliate of Montedison S.p.A. of Milan, Italy, formed Adria Laboratories Inc. Upon information and belief, Adria will perform clinical testing for the purpose of obtaining U.S. Food & Drug Administration approval for drugs already developed and being sold in Europe by Montedison's pharmaceutical affiliates.

183. Upon information and belief, on or about August 31, 1976 defendant HERCULES INCORPORATED and American Petrofina, Inc. formed two joint ventures, Hercofina and Hercofina Europe, for production and marketing of terephthalates. Upon information and belief, Defendant HERCULES, INC. sold to American Petrofina a 25% interest in its terephthalate assets for a 75% interest in the joint ventures. Upon information and belief, defendant HERCULES INCORPORATED interest will be reduced as American Petrofina elects to invest additional money for capital expansion.

Defendant HERCULES INCORPORATED: Business and Products

184. Upon information and belief, defendant HERCULES INCORPORATED produces many diversified products through its Coatings & Specialty Products Department:

Coatings:

Nitrocellulose  
"Parlon" Chlorinated Rubber  
Ethyl Cellulose  
Ethyl Hydroxyethyl Cellulose  
Penaerythritols  
Formaldehyde  
"Imperial" Organic and Inorganic Pigment

Colors

Ceramic Colors  
"Radiant" Fluorescent Products

Specialty Products:

Chemical Cotton  
Cellulose Gum and CMC  
Hydroxyethyl Cellulose  
Hydroxypropyl Cellulose  
Carrageenan, Guar and Guar Derivatives  
Magnetic Iron Oxides  
"Aqualon" Super Absorbant Polymer

185. Upon information and belief, defendant HERCULES INCORPORATED produces many diversified products through its Food and Fragrance Development Department:

Hydrocolloids:

Cellulose Gum And CMC  
"HVP" Hydrolyzed Vegetable Protein  
Carrageenen, Pectin, and Locust Bean and Guar  
Derivatives

Exudate Gums  
"Klucel" Hydroxypropyl Cellulose

Polak's Frutal Works, Inc.:

Flavors and Fragrances

186. Upon information and belief, defendant HERCULES INCORPORATED produces many diversified products through its Industrial Systems Department:

Industrial Group:

Explosives and Blasting Agents  
Smokeless Powder  
Nitrogen Products  
Water Treatment Chemicals and Equipment  
"Hercofloc" Polymers  
Lightweight Aggregates

Plastic Products Group:

"Vantage" Polypropylene Structural Foam  
Oriented Polypropylene Bottles  
"Delnet" Plastic Netting  
"Trimpak" Polypropylene Cups  
Custom and Proprietary Plastic Moldings  
Dairy and Food Processing Machinery

Haveg Industries, Inc.:

Silica Fabrics  
Corrosion Resistant Plastics and Chemicals  
Equipment  
Asbestos-Reinforced Epoxy and Phenolic Pipe  
Filament-Wound Fiber Glass Products  
Plastic Missile and Rocket Structures  
High-Temperature Insulated Materials and  
Fabrics  
High-Temperature Wire and Cable  
Electrical Harnesses and Assemblies

Systems Group:

Solid Propellant Rocket Motors  
Graphite Fiber  
Structural Shapes and Components and  
Fabricated Structures from Graphite and Glass  
Fiber Composites

187. Upon information and belief, defendant HERCULES INCORPORATED produces many diversified products through its Organics Department:

Resins:

Rosin and Related Resins  
Terpenes  
Pine Oil  
Rall Oil Fatty Acids  
Hydrocarbon and Synthetic Resins  
"Hercolube" Synthetic Esters  
"Hercoflex" plasticizers  
"Terate" Resins  
"Blackhawk" Resins  
Wash Emulsions  
Defoamers

Emulsifiers  
Hydroperoxide Catalysts  
Organic Peroxides  
Synthetic Rubbers  
"Kerigraph" Systems for Letter Press and  
Flexographic Printing

Agricultural Chemicals:

Insectides, which include Toxephene, Delnav  
and Torak.

"Nitroform" Urea-Fomaldehyde Plant Food

188. Upon information and belief, defendant HERCULES INCORPORATED produces many diversified products through its Polymers Department:

Plastics:

"Pro-Fax" Amorphous Polypropylene

"1900" Ultrahigh Molecular Weight Polyethylene

Film:

Hercules Film: Balanced Oriented Polypropylene Films

Home Furnishings:

"Herculon" Olefin Fibers

Finished Carpet

Commission Dyeing, Printing and Finishing

189. Upon information and belief, polypropylene is used in many applications to reduce weight and give corrosion resistance to a wide variety of vehicle parts including battery casings, fan shrouds, and fender lines, as well as upholstery, carpeting and decorative applications in automobile interiors.

190. Upon information and belief, according to statements published by defendant HERCULES INCORPORATED, graphite fibers manufactured, formulated, advertised, promoted, marketed and sold by said defendant are finding new applications in both the automotive and the aircraft industries as a substitute for steel and other metals where reduction of weight, coupled with high strength and stiffness is required. Upon information and belief, Magnamite graphite fiber, silver-knit fabric of Herculon fiber, Pro-fax polypropylene structural foam, metal laminates, and Herclor elastomer are finding new uses in

the transportation field.

191. Upon information and belief, defendant HERCULES INCORPORATED produces many diversified products through its Synthetics Department including the chemical intermediates Methanol, Terephthalates, and Dimethyl Terephthalate.

192. Upon information and belief, defendant HERCULES INCORPORATED corporate operations are based upon "value added" chemistry which takes readily available and relatively low cost raw materials and adds value to them by upgrading their chemical characteristics.

193. Upon information and belief, other companies utilize the products manufactured by defendant HERCULES INCORPORATED to provide consumer products.

194. Upon information and belief, in the area of shelter, defendant HERCULES INCORPORATED not only makes the pigments, coatings, and preservatives that are basic ingredients in paints and stains, but also produces chemicals that are part of "a myriad of other products that make homes more attractive and more comfortable," according to the annual report of defendant HERCULES INCORPORATED. Upon information and belief, Herculon olefin fiber is used by many manufacturers to produce popular upholstery fabric and carpeting for residential and commercial uses.

195. Upon information and belief, defendant HERCULES INCORPORATED makes adhesives and tackifiers to bond plywood, paneling, formica, and tile, as well as specialty ceramic pigments to decorate glassware and make possible the touch-sensitive controls on electric appliances. Such basic construction materials as cement, wallboard, and linoleum also, upon information and belief, include products of defendant HERCULES INCORPORATED technology.

196. Upon information and belief, production and operation of

cars, buses, trucks, trains, and airplanes depend upon the technology developed and marketed by defendant HERCULES INCORPORATED.

197. Upon information and belief, published statements by defendant HERCULES INCORPORATED claim road signs are easier to read because of Radiant fluorescent pigments. According to the published statements of said defendant, bridges last longer and ships can be in service for more voyages without dry-docking because of Parlon chlorinated rubber products that defendant HERCULES INCORPORATED supplies to paint and coatings manufacturers.

198. Upon information and belief, published statements by defendant HERCULES INCORPORATED claim tires, fan belts, ignition and other electrical wires, and oils and lubricants in all phases of the transportation industry exist, in part, because of the resins, rosins, fibers, plasticizers, stabilizers, modifiers, and other "value added" ingredients that Hercules manufactures.

199. Upon information and belief, few shoppers can leave a grocery store without taking with them products manufactured, formulated, advertised, promoted, marketed and sold by the defendant HERCULES INCORPORATED. Upon information and belief, such products include the coatings on frozen food packages; stabilizers in ice cream; thickeners in canned gravies; strength additives in paper products; or palatability and flavoring ingredients in soft drinks and desserts. Upon information and belief, products manufactured, formulated, advertised, promoted, marketed and sold by the defendant HERCULES INCORPORATED are found on virtually every aisle of every food store in the country.

200. Upon information and belief, products manufactured, formulated, advertised, promoted, marketed and sold by the defendant HERCULES INCORPORATED play an important part in the manufacture of detergents, disinfectants, soaps, cleaners and paper towels.

201. Upon information and belief, tobacco products, snack foods,

and variety items not only contain various products manufactured, formulated, advertised, promoted, marketed and sold by the defendant HERCULES INCORPORATED, but often come to market protected and packaged in Hercules polypropylene film.

202. Upon information and belief, defendant HERCULES INCORPORATED participates in the clothing industry through Hercofina's DMT (dimethyl terephthalate) and PTA (purified terephthalic acid) used to manufacture polyester fibers.

203. Upon information and belief, fertilizers manufactured, formulated, advertised, promoted, marketed and sold by the defendant HERCULES INCORPORATED are applied to the cotton crop.

204. Upon information and belief, pesticides manufactured, formulated, advertised, promoted, marketed and sold by the defendant HERCULES INCORPORATED are applied to many crops and in many areas for weed control, among other uses.

205. Upon information and belief, according to statements published by the defendant HERCULES INCORPORATED, wherever you turn in a clothing store, you will find materials manufactured, formulated, advertised, promoted, marketed and sold by said defendant.

206. Upon information and belief, carboxymethylcellulose (CMC) manufactured, formulated, advertised, promoted, marketed and sold by the defendant HERCULES INCORPORATED is used in weaving cotton into cloth. Upon information and belief, defendant HERCULES INCORPORATED brought a new warp size plant on stream in 1977 to meet industry demand.

207. Upon information and belief, Indalca gums manufactured, formulated, advertised, promoted, marketed and sold by the defendant HERCULES INCORPORATED are involved in the designs in printed fabrics.

208. Upon information and belief, pigments and paper additives

manufactured, formulated, advertised, promoted, marketed and sold by the defendant HERCULES INCORPORATED are found in the packaging, and even as part of the price tag attached by the retailer.

209. Upon information and belief, Delnet propopylene netting manufactured, formulated, advertised, promoted, marketed and sold by the defendant HERCULES INCORPORATED is used as a bonding and stiffening agent in collars, shoes, and gloves, while cross-linking agents are used to make raincoats, boots, and belts.

210. Upon information and belief, defendant HERCULES INCORPORATED manufactures and markets products which smooth and thicken toothpaste and can be found in mouthwashes, deodorants and other personal health care items.

Defendant HERCULES INCORPORATED: Principal Plants & Properties

211. Upon information and belief, defendant HERCULES INCORPORATED owns, operates and maintains plants and owns property at a number of locations in the United States and throughout the world.

212. Upon information and belief, defendant HERCULES INCORPORATED owns, operates and maintains plants and owns property for the manufacture, formulation, and sale of products by its Coatings & Specialty Products Department in the following locations:

Glen Falls, New York;  
Harbor Beach, Michigan;  
Hopewell, Virginia;  
Louisiana, Missouri;  
Parlin, New Jersey;  
Pulaski, Virginia;  
Richmond, California; and  
Washington, Pennsylvania;

213. Upon information and belief, defendant HERCULES INCORPORATED owns, operates and maintains plants and owns property for the manufacture, formulation, and sale of products by its Industrial Systems



Department in the following locations:

Bacchus, Utah;  
Bessemer, Alabama;  
Buena Park and Santa Fe Springs, California;  
Burlington, Vermont;  
Carthage and Louisiana, Missouri;  
Donora, Pennsylvania;  
Hopewell and Snowden, Virginia;  
Houston, Texas;  
Ishpeming and Williamston, Michigan;  
Kenvil, New Jersey;  
Marshallton and Middletown, Delaware;  
Oxford, Georgia;  
Port Ewen, New York;  
Rocket Center, West Virginia;  
St. Paul, Minnesota;  
and San Leandro, California;  
Taunton, Massachusetts; and  
Terre Haute, Indiana.

214. Upon information and belief, defendant HERCULES INCORPORATED owns, operates and maintains plants and owns property for the manufacture, formulation, and sale of products by its Organics Department at the following locations:

Baton Rouge, Louisiana;  
Brunswick and Savannah, Georgia;  
Burlington, New Jersey;  
Chicopee, Massachusetts;  
Clairton and West Elizabeth, Pennsylvania;  
Franklin, Virginia;  
Gibbstown, New Jersey;  
Hattiesburg, Mississippi;  
Kalamazoo, Michigan;  
Milwaukee, Wisconsin; and  
Portland, Oregon.

215. Upon information and belief, defendant HERCULES INCORPORATED owns, operates and maintains plants and owns property for the manufacture, formulation, and sale of products by its Polymers Department at the following locations:

Bayport, Texas;  
Calhoun, Georgia;  
Covington, Virginia;  
Crowley and Lake Charles, Louisiana;  
Oxford, Georgia; and  
Terre Haute, Indiana;

216. Upon information and belief, defendant HERCULES INCORPORATED owns, operates and maintains plants and owns property for the manufacture, formulation, and sale of products by Hercofina at Plaquemine, Louisiana and Wilmington, North Carolina.

217. Upon information and belief, defendant HERCULES INCORPORATED owns, operates and maintains plants and owns property for the manufacture, formulation, and sale of products by its Food & Fragrance Development Department at the following locations:

Middletown, New York;  
Amersfoort, The Netherlands;  
London, England; and  
Sydney, Australia

218. Upon information and belief, defendant HERCULES INCORPORATED owns, operates and maintains plants and owns property for the manufacture, formulation, and sale of products by its Europe Department and International Department in a number of countries, including:

Belgium  
Denmark  
England  
Finland  
France  
Germany  
Italy  
Spain  
Sweden  
The Netherlands;  
Brazil, and  
Canada.

DEFENDANT NORTHWEST INDUSTRIES, INC.: Corporate History

219. Upon information and belief, defendant NORTHWEST INDUSTRIES, INC. was incorporated in Delaware on or about August 3, 1967 and in April 1968 became the parent corporation of Northwest Chemco, Inc. ("Chemco") holding 99.9% of the outstanding shares presently owned.

220. Upon information and belief, defendant NORTHWEST INDUSTRIES, INC. became the parent corporation of Philadelphia and Reading Corporation ("Philadelphia-Reading") holding 96.5% of the outstanding shares presently owned).

221. Upon information and belief, in April 1971 defendant NORTHWEST INDUSTRIES, INC. purchased for cash all of the outstanding capital stock of The Buckingham Corporation ("Buckingham"), the exclusive United States importer and selling agent of Cutty Sark brand Scotch whisky.

222. Upon information and belief, in April 1973 defendant NORTHWEST INDUSTRIES, INC. purchased for cash approximately 98% of the common stock of General Battery Corporation ("General Battery") and, upon information and belief, defendant NORTHWEST INDUSTRIES, INC. now owns 100% of the outstanding shares of that company.

223. Upon information and belief, in February 1976 defendant NORTHWEST INDUSTRIES, INC. purchased for cash approximately 83% of the common stock of Microdot Inc. ("Microdot") and, upon information and belief, defendant NORTHWEST INDUSTRIES, INC. now owns 100% of the outstanding shares of that company.

224. Upon information and belief, in November 1977 defendant NORTHWEST INDUSTRIES, INC. purchased for cash 97.4% of the common and common equivalent shares of Coca-Cola Bottling Company of Los Angeles ("Coca-Cola of Los Angeles").

Defendant NORTHWEST INDUSTRIES, INC.: Business and Products

225. Upon information and belief, defendant NORTHWEST INDUSTRIES, INC. is a holding and management company owning, directly or indirectly, eleven principal operating subsidiaries.

226. Upon information and belief, defendant NORTHWEST INDUSTRIES, INC. is headquartered in Chicago.

227. Upon information and belief, control of day-to-day operations of the defendant NORTHWEST INDUSTRIES, INC. is decentralized, with responsibility in the hands of operating company managements.

228. Upon information and belief, corporate management of defendant NORTHWEST INDUSTRIES, INC. retains broad policy authority, provides advisory and staff functions, reviews plans and budgets, monitors performance, and maintains overall financial controls, including the allocation of capital and the conduct of all financing for its several operating subsidiaries.

229. Upon information and belief, the business activities of defendant NORTHWEST INDUSTRIES, INC. were carried on in 1977 by the following principal operating subsidiaries:

- Acme Boot Company, Inc.;
- Buckingham;
- Coca-Cola of Los Angeles;
- Fruit of the Loom, Inc.;
- General Battery;
- Imperial Reading Corporation;
- Union Underwear Company, Inc. ("Union Underwear");
- Lone Star Steel Company ("Lone Star");
- Microdot;
- Universal Manufacturing Corporation ("Universal"); and
- Velsicol Chemical Corporation ("Velsicol Chemical");

in the following three product groups:

- Consumer: apparel, batteries and beverages;
- Industrial: principally tubular steel products and ingot moulds, connecting devices and electrical

lamp ballasts; and  
Chemical: principally pesticides and  
industrial chemicals and resins.

230. Upon information and belief, the principal consumer products manufactured, fabricated, advertised, promoted, marketed and sold by defendant NORTHWEST INDUSTRIES, INC. are men's and boys' underwear; western, leisure and casual boots; automotive replacement batteries; soft drinks and bottled water; and Scotch whisky. Upon information and belief, other products and operations in this group manufactured, fabricated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. include jeans and shirts; industrial batteries and battery chargers; industrial water treatment; and French wines and vodka.

231. Upon information and belief, defendant NORTHWEST INDUSTRIES, INC. through a subsidiary, owns the Fruit of the Loom and B.V.D. trademarks, which are registered in the United States and in many foreign countries. Upon information and belief, these trademarks are used primarily on men's and boys' underwear and knit shirts marketed by Union Underwear and, upon information and belief, said trademarks are also licensed to nonaffiliated manufacturers of wearing apparel, home furnishings and other household products under agreements which typically call for royalty payments based on net sales with fixed annual minimum fees.

232. Upon information and belief, the underwear boot, replacement battery, soft drink, bottled water and Scotch whisky operations of the defendant NORTHWEST INDUSTRIES, INC. rank among the leaders in their respective fields. Underwear is sold principally under the Fruit of the Loom and B.V.D. trademarks and boots are sold principally under the Acme, Dingo and Dan Post labels.

233. Upon information and belief, the principal markets for apparel products manufactured, fabricated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. are department, discount, mail order, variety, chain and independent.

specialty stores, and distribution is direct.

234. Upon information and belief, automotive replacement batteries manufactured, fabricated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. are marketed largely through auto parts retail stores, large retailers, and tire and oil companies, principally under private labels.

235. Upon information and belief, most soft drinks manufactured, formulated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. are sold directly to retailers, principally under the Coca-cola and Canada Dry trademarks. Upon information and belief, the franchise areas for the soft drink products manufactured, formulated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. include Southern and Central California, four of the five main Hawaiian Islands, and portions of Nevada (including Las Vegas), Missouri, Kansas, Wisconsin, Illinois, Iowa and Nebraska. Upon information and belief, bottled water manufactured, formulated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. is sold directly to consumers in Southern California and Houston, Texas.

236. Upon information and belief, Scotch whisky manufactured, formulated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. is sold under the Cutty Sark and Cutty 12 trademarks. Upon information and belief, Scotch whisky, French wines, and vodka manufactured, formulated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. are sold to distributors throughout the United States and directly to state governments for resale in state-controlled liquor stores.

237. Upon information and belief, the principal raw materials for apparel manufactured by defendant NORTHWEST INDUSTRIES, INC. are cotton staple, polyester staple, finished textile fabrics and trim, leather, leather substitute and rubber products, all of which are

regularly available.

238. Upon information and belief, Union Underwear is a fully integrated manufacturer, spinning most of its yarn requirements and manufacturing most of its cloth and elastic needs.

238. Upon information and belief, lead, the most important component in the manufacture of batteries by defendant NORTHWEST INDUSTRIES, INC. is obtained as a raw material from internal secondary smelting operations primarily, and also from various external sources.

239. Upon information and belief, soft drink syrup and concentrate are purchased by defendant NORTHWEST INDUSTRIES, INC. primarily from franchisers under contracts which generally cover an unlimited period of time.

240. Upon information and belief, Cutty Sark Scotch whisky is purchased by defendant NORTHWEST INDUSTRIES, INC. pursuant to a long-term, exclusive United States distributorship agreement.

241. Upon information and belief, the Consumer Products Group operations of defendant NORTHWEST INDUSTRIES, INC. employed approximately 25,000 persons at December 31, 1977.

242. Upon information and belief, the principal industrial products manufactured, fabricated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. are tubular steel products, connecting devices, ingot moulds and ballasts (small transformers) for fluorescent and high-intensity discharge lamps. Upon information and belief, in all of these operations defendant NORTHWEST INDUSTRIES, INC. ranks as a leader.

243. Upon information and belief, tubular steel products manufactured, fabricated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. include casing and tubing for

oil and gas wells, line pipe for gathering and transporting petroleum, standard pipe for construction, spiral weld pipe for water mains, and mechanical tubing.

244. Upon information and belief, oil country tubular goods manufactured by defendant NORTHWEST INDUSTRIES, INC. are marketed principally through distributors in the Southwestern, South Central, and Western states, while other tubular steel products are marketed primarily through distributors to end-users throughout the United States except for New England and the Mid-Atlantic states.

245. Upon information and belief, tubular steel products manufactured, fabricated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. are sold principally under the Lone Star and A.O. Smith labels, and ballasts are sold under the Universal label.

246. Upon information and belief, essential raw materials for the manufacture of tubular steel products by defendant NORTHWEST INDUSTRIES, INC. are iron ore, coal, coke, limestone and steel scrap. Upon information and belief, iron ore reserves in close proximity to the principal plant are owned either in fee or under long-term lease and are estimated to be sufficient for ninety years of operation. To supplement this supply it is believed that there are long-term purchase contracts for concentrated ore pellets. Upon information and belief, defendant NORTHWEST INDUSTRIES, INC. maintains coal reserves in Oklahoma and Arkansas, both owned and leased, which represent more than eighty million tons, and, upon information and belief, these deposits are not being mined currently. Upon information and belief, defendant NORTHWEST INDUSTRIES, INC. purchases high, medium and low volatile coals in the required mix under long-term contracts. While some coke to supplement production is presently purchased by defendant NORTHWEST INDUSTRIES, INC., upon information and belief, approximately \$100 million will be spent by defendant NORTHWEST INDUSTRIES, INC. for a new battery of 70 coke ovens and new iron ore sintering facilities



in order to add productive capacity for the necessary intermediate products. Upon information and belief, there are numerous limestone quarries within two hundred miles of the plant. Upon information and belief, steel scrap is usually purchased by defendant NORTHWEST INDUSTRIES, INC. from several dealers in the Texas, Oklahoma, Arkansas, Louisiana area.

247. Upon information and belief, new tubular steel facilities have been added by defendant NORTHWEST INDUSTRIES, INC. including two electric furnaces, a continuous caster, and two extrusion presses - one of which is the largest of its kind in the world.

248. Upon information and belief, in 1977 a \$13.5 million expenditure was authorized for additional specialty tubing capacity which will provide for production of this tubing in sizes up to 15 inches in diameter.

249. Upon information and belief, connecting devices manufactured, fabricated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. consist of specialty fasteners, electrical and electronic connectors, and fluid seals and couplings, which, upon information and belief, are sold primarily to the automotive and aerospace markets, as well as to other major industries.

250. Upon information and belief, steel is the principal raw material for most connecting devices manufactured by defendant NORTHWEST INDUSTRIES, INC., while silver, brass, aluminum, gold, rubber, and plastics are also used.

251. Upon information and belief, the ingot molds manufactured, fabricated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. are large cast iron forms into which molten steel is poured and allowed to solidify to produce ingots.

252. Upon information and belief, Microdot is the largest of three

major independent ingot mold manufacturers, which supply approximately 50% of domestic steel industry requirements. Both connecting devices and ingot molds are marketed through Microdot's own sales force.

253. Upon information and belief, Microdot owns a number of domestic and foreign patents which are important in the aggregate, but not individually. Upon information and belief, ballasts and some of the processes involved in their production are covered by numerous patents, of which the principal ones are owned by two major competitors. Universal believes it is adequately licensed to conduct its business.

254. Upon information and belief, ballasts manufactured, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. are sold primarily directly to original equipment lamp manufacturers throughout the country.

255. Upon information and belief, essential raw materials for ballasts manufactured, fabricated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. are copper, steel and aluminum. Upon information and belief, all of these requirements are met from major producers and dealers in the United States and abroad.

256. Upon information and belief, the Industrial Products operations of defendant NORTHWEST INDUSTRIES, INC. employed approximately 15,000 persons at December 31, 1977.

257. Upon information and belief, the principal chemical products manufactured, formulated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. are specialty pesticides, industrial chemicals, and resins.

258. Upon information and belief, chemical products are sold by defendant NORTHWEST INDUSTRIES, INC. under various brand names both directly to manufacturers and through distributors, dealers, and

foreign governments to a wide variety of customers.

259. Upon information and belief, all chemical products manufactured, formulated, advertised, promoted, marketed and sold by the defendant NORTHWEST INDUSTRIES, INC. are highly competitive, however, according to reports published by defendant NORTHWEST INDUSTRIES, INC., based upon available market research, the chemical products group of defendant NORTHWEST INDUSTRIES, INC. ranks as a major producer of specialty pesticides, brine-derived chemicals, including flame retardents, benzoic acid derivatives and, petroleum hydrocarbon resins.

260. Upon information and belief, Velsicol Chemical has patent protection expiring from 1978 to 1986 on several of its pesticide products.

261. Upon information and belief, raw materials are generally available to defendant NORTHWEST INDUSTRIES, INC. from other chemical manufacturers, petroleum processors, and owned brine wells.

262. Upon information and belief, the chemical product operations of defendant NORTHWEST INDUSTRIES, INC. employed approximately 2,000 persons at December 31, 1977.

263. Upon information and belief, approximately \$13,900,000 was spent by defendant NORTHWEST INDUSTRIES, INC. on research and development in 1977, compared with approximately \$12,300,000 in 1976.

264. According to forms filed with the Securities & Exchange Commission of the United States by defendant NORTHWEST INDUSTRIES, INC. for 1977, "Compliance with present environmental regulations has not had, nor is it expected to have, any material effect on said defendant NORTHWEST INDUSTRIES, INC."

265. Upon information and belief, according to the report of the

May 9, 1978 Annual Meeting of defendant NORTHWEST INDUSTRIES, INC., 88 banks own about 3.3 million shares and 37 funds own another 1.6 million shares of the stock of defendant NORTHWEST INDUSTRIES, INC., in all about one-third of the outstanding stock of the corporation.

Defendant NORTHWEST INDUSTRIES, INC.: Operations

266. Upon information and belief, sales of defendant NORTHWEST INDUSTRIES, INC. for 1977 increased \$307,600,000, up 19.6% over 1976, while net earnings increased \$11,800,000, up 10%. Upon information and belief, the operations of Coca-Cola of Los Angeles are included in consolidated results only from November 1, 1977, the effective date of acquisition, however, even excluding the Coca-Cola of Los Angeles contribution, sales and earnings were at record levels and improved \$267,600,000, or +17.1%, and \$10,800,000, or +9.2%, respectively, over 1976.

267. Upon information and belief, sales of all three product groups of defendant NORTHWEST INDUSTRIES, INC. exclusive of Coca-Cola of Los Angeles improved sharply over 1976.

268. Upon information and belief, the Industrial Group (up 20%) was led by record tubular steel sales, especially in oil country products, as a result of increased drilling activity and because field inventories, which were high in 1976, came into better balance. Upon information and belief, connecting device and electrical lamp ballast sales were also records.

269. Upon information and belief, the Chemical Group's improvement (up 20% from a weak 1976) stemmed from higher pesticide sales in both the domestic and international markets.

270. Upon information and belief, the Consumer Group's improvement (up 12.5%) over 1976 resulted principally from record battery and underwear sales, while other apparel sales were down.

271. Upon information and belief, gross earnings of defendant NORTHWEST INDUSTRIES, INC. increased \$63,431,000, or 16.3%, during 1977 slightly less than the 17.1% sales increase, as lower consumer margin outweighed the effect of chemical margin improvement, which was attributable according to statements by management of defendant NORTHWEST INDUSTRIES, INC., "to increased sales of relatively high margin pesticides."

272. Upon information and belief, during 1977 Industrial Group margin was approximately the same as 1976.

273. Upon information and belief, the major factors causing the consumer margin decline during 1977 were the higher cost of Scotch whisky and costs related to an 18-week stike at Acme Boot Company, Inc.

274. Upon information and belief, earnings of defendant NORTHWEST INDUSTRIES, INC. before income taxes increased \$29,700,000, or +14.6%, during 1977, a slower rate of increase than gross earnings principally as a result of higher interest expense attributable to the cost of treasury stock purchases, approximately \$4,800,000, and higher interest rates.

275. Upon information and belief, selling, administrative and general expenses were 10.2% of sales in both 1976 and 1977 in spite of significantly increased Cutty Sark advertising and higher chemical insurance and legal expenses mainly because higher tubular steel sales required minimal additional expense.

276. Upon information and belief, the 9.2% increase in net earnings during 1977 was sharply lower than the pretax increase as a result of lower investment tax credit.

277. Upon information and belief, there were a substantial number of the significant changes in the balance sheet of defendant NORTHWEST

INDUSTRIES, INC. during 1977 compared with 1976, attributable to the acquisition of Coca-Cola of Los Angeles and purchases of treasury stock. Excluding these effects, the balance sheet reflected growth in line with the strong increases in sales and earnings.

278. Upon information and belief, sales of defendant NORTHWEST INDUSTRIES, INC. for 1976 increased 32% over 1975 while net earnings increased 16%. Even excluding the results of Microdot, a manufacturer of connecting devices and ingot molds, in consolidated results from February 11, 1976, the date this company was acquired by defendant NORTHWEST INDUSTRIES, INC., sales and earnings registered improvement during 1976 over the record results of 1975, notwithstanding an extremely weak pesticide business and lower oil country tubular goods sales.

279. Upon information and belief, during 1976 the major favorable factor for the defendant NORTHWEST INDUSTRIES, INC. was significantly higher Consumer Group sales and earnings.

280. Upon information and belief, excluding the contribution of Microdot to 1976 results, record Consumer Group sales increased 16% over 1975 as demand for underwear, batteries, boots and jeans was strong. Industrial sales were about even with 1975. According to the reports published by defendant NORTHWEST INDUSTRIES, INC., lower oil country tubular goods sales caused by a temporary oversupply of field inventories were virtually offset by strong sales of fluorescent ballasts. Defendant NORTHWEST INDUSTRIES, INC. stated in its reports that the oversupply of field inventories of oil country goods resulted in part from a generally unfavorable and uncertain legislative climate which affected oil and gas well drilling in the United States. According to reports published by defendant NORTHWEST INDUSTRIES, INC., Chemical Group sales were also about the same in 1976 as 1975 with the lower sales of pesticides being offset by strong sales of industrial chemicals. According to the reports published by defendant NORTHWEST INDUSTRIES, INC., the pesticide business was affected by high field

inventories as well as a severe drought in Europe and adverse regulatory action.

281. According to reports published by defendant NORTHWEST INDUSTRIES, INC., gross earnings increased at a slower rate during 1976 than sales principally from the lower sales of relatively high margin pesticides and oil country pipe; while consumer group margin improved as the underwear and replacement battery markets recovered from the 1975 recession-affected levels. Increases in selling, administrative and general expenses were primarily volume related and interest expense was slightly lower than 1975 because of lower rates.

282. According to reports published by defendant NORTHWEST INDUSTRIES, INC., net earnings for 1976 also benefited from a higher investment tax credit, a large part of which was generated by the expansion of Lone Star Steel's production capacity; while the significant increase in the accrued tax liability over 1975 resulted from the accrual for currently payable federal income taxes which were not required in recent years because of the tax loss carryforward resulting from the 1972 sale of transportation assets.

Defendant NORTHWEST INDUSTRIES, INC.: Plants and Property

283. Upon information and belief, defendant NORTHWEST INDUSTRIES, INC. owns or leases property at the following locations as described:

In Alabama, six facilities: four cotton mills which are owned; a leased shirt plant, which lease, upon information and belief, expires in 1985; and an automotive battery plant which is owned.

In Arizona, an agricultural chemical plant which is owned.

In Arkansas, a bromine manufacturing facility and brine wells which are owned.

In California, fifteen facilities: two connecting device plants which are leased and which leases, upon information and belief, expire in 1982; a leased automotive battery plant which lease, upon information and belief, expires in

1980; eleven bottling plants, nine of which are owned, and two of which are leased and which leases, upon information and belief, expire in 1980; and a leased canning plant which lease, upon information and belief, expires in 1987.

In Colorado, a small diameter pipe mill which is owned.

In Connecticut, a capacitor plant which is leased and which lease, upon information and belief, expires in 1983.

In Costa Rica, a connecting device plant which is owned.

In England, a connecting device plant which is leased and which lease, upon information and belief, expires in 1991.

In France, two facilities: a connecting device plant which is owned, and a connecting device plant which is leased and which lease, upon information and belief, expires in 1981.

In Hawaii, a bottling and canning plant which is owned.

In Illinois, ten facilities: four connecting device plants which are owned and three connecting device plants which are leased and which leases, upon information and belief, expire from 1979-1985; an ingot mold plant which is leased and which lease, upon information and belief, expires in 1987; an agricultural and industrial chemical plant, and a research center which are owned.

In Indiana, an automotive battery plant which is owned.

In Iowa, a bottling plant which is owned.

In Kansas, three facilities: an automotive battery plant which is leased and which lease, upon information and belief, expires in 2001; and two bottling and canning plants which are owned.

In Kentucky, five facilities: two underwear plants which are owned; an underwear plant which is leased and which lease, upon information and belief, expires in 1986; and two connecting device plants which are owned.



In Louisiana, three facilities: two underwear plants which are leased and which leases, upon information and belief, expire in 1986 and 1990; and a lead smelter plant which is owned.

In Massachusetts, a footwear plant which is owned.

In Michigan, seven facilities: five connecting device plants, four of which are owned, and one of which is leased and which lease, upon information and belief, expires in 1983; a general manufacturing facility and brine wells, and a research center all of which are owned.

In Mississippi, five facilities: a ballast assembly plant which is leased and which lease, upon information and belief, expires in 1989; a wire mill which is leased and which lease, upon information and belief, expires in 1997; a steel slitting mill which is owned; a leased underwear plant which lease, upon information and belief, expires in 1990; and a leased underwear distribution center which lease, upon information and belief, expires in 1988.

In Missouri, a leased bottling plant which lease, upon information and belief, expires in 1982.

In Nebraska, a leased bottling plant which lease, upon information and belief, expires in 1996.

In Nevada, a bottling plant which is owned.

In New Hampshire, a connecting device plant which is owned.

In New Jersey, two ballast assembly plants which are leased and which leases, upon information and belief, expire in 1983 and 1989.

In North Carolina, four facilities: two cotton mills which are owned; an underwear plant which is owned; and a connecting device plant which is owned.

In Ohio, four facilities: a connecting device plant which is owned; two ingot mold plants which are owned; and a battery charger plant which is owned.

In Oklahoma, a leased underwear plant which lease, upon information and belief, expires in 1985.

In Oregon, an automotive battery plant which is owned.

In Pennsylvania, six facilities: an automotive battery plant which are owned; a leased automotive battery plant, which lease, upon information and belief, expires in 1986; an industrial battery plant which is owned; a lead smelter plant which is owned; an injection molding plant which is owned; and a leased connecting device plant, which lease, upon information and belief, expires in 1985.

In Puerto Rico, a leased automotive battery plant, which lease, upon information and belief, expires in 1982.

In South Carolina, two facilities: a woven elastic plant which is owned and an automotive battery plant which is owned.

In Tennessee, twelve facilities: a leased jeans plant, which lease, upon information and belief, expires in 1988; a leased shirt plant, which lease, upon information and belief, expires in 1986; a leased jeans and shirt plant, which lease, upon information and belief, expires in 1984; five leased boot plants which leases, upon information and belief, expire from 1978-1984; two connecting device plants which are owned; and two agricultural and industrial chemical plants which are owned.

In Texas, eight facilities: two agricultural and industrial chemical plants which are owned; basic steel manufacturing facilities consisting of a blast furnace, 78 coke ovens, a five-furnace open hearth shop, standard ingot casting facilities, a slabbing mill, two electric furnaces, continuous caster, two extrusion presses, and mills and machines for the production of skelp, pipe and other products; an ore beneficiation plant and a tailing basin all of which facilities are owned; a jeans plant which is leased and which lease, upon information and belief, expires in 1982; a leased boot plant, which lease, upon information and belief, expires in 1979; a leased automotive battery plant, which lease, upon information and belief, expires in 1984; a lead smelter plant which is owned; and a bottling plant which is owned.

In Utah, a connecting device plant which is leased and which lease, upon information and belief, expires in 1985.

In Virginia, three jeans and ladies' fashion plants which are owned.

In Wisconsin, a bottling plant which is owned.

284. Upon information and belief, the properties in its Industrial Group are operated by defendant NORTHWEST INDUSTRIES, INC. at approximately 70-75% of capacity.

285. Upon information and belief, those properties in its Chemical Group are operated by defendant NORTHWEST INDUSTRIES, INC. at approximately 60% of capacity.

286. Upon information and belief, those properties in its Consumer Group are operated by defendant NORTHWEST INDUSTRIES, INC. at approximately 80-100% of capacity.

## Plaintiffs Complain

287. Upon information and belief, the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. warranted and represented that phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) even though contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") were safe and fit for the uses advertised and promoted for such contaminated phenoxy herbicides by said corporated defendants.

288. Upon information and belief, the phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") was not safe and fit for the uses advertised and promoted and was therefore mislabeled, misbranded and misrepresented by said corporate defendants.

289. Upon information and belief, the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. knew, or with the exercise of reasonable concern for the public health, safety and welfare should have known, that phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") were inherently dangerous and toxic.

290. Upon information and belief, the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. deliberately, intentionally and with knowledge of the potential toxic effects, manufactured, formulated, advertised, promoted, marketed and sold phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic synthetic organic

chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") in wanton and reckless disregard of the public health, safety and welfare.

291. Upon information and belief, the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC., individually and collectively, jointly and severally, their several agents, servants and/or employees failed to warn the deceased plaintiff PAUL REUTERSHAN and all those other 4.2 million American service persons so unfortunate as to be similarly at risk, of toxic effects attributable to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

292. Upon information and belief, the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. failed to warn the United States Department of Defense, the United States Department of Health, Education and Welfare, the United States Department of Interior, and/or the United States Department of Agriculture, much less the American people of the dangers associated with the handling and use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

293. The corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. failed to exercise reasonable care and caution or demonstrate responsible corporate concern for the public health, safety and welfare commensurate with the economic stature of said corporate defendants when they failed to warn the deceased plaintiff PAUL REUTERSHAN and all the other 4.2 million American servicemen so unfortunate as to be similarly at risk of the dangers associated with exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic

synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

294. Upon information and belief, the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. failed to adequately test the phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) which said corporate defendants knew, or with the exercise or reasonable concern for the public health, safety, and welfare should have known, were contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") in order to ascertain the dangerous nature and toxic characteristics of such contaminants, before advertising, promoting and marketing such contaminated phenoxy herbicides.

295. Upon information and belief, in the event the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. did conduct tests to ascertain the dangerous nature and toxic characteristics of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") said corporate defendants deliberately, intentionally, wilfully, and wantonly failed to publish the results of such tests in a manner which would have alerted the American people to the extent of the risk associated with exposure to such contaminated phenoxy herbicides.

296. Upon information and belief, the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. have refused or failed to remove phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") from international and interstate commerce and local markets when said corporate defendants knew, or with reasonable concern for the public health, safety and welfare should have known, of the risk associated with exposure to such contaminated phenoxy

herbicides.

297. Upon information and belief, the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. have violated the common law and/or the statutory laws of the United States of America and/or the laws of the several states in intentionally advertising, promoting, marketing, and selling phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") which such contaminated herbicides were, and still are, inherently dangerous and unsafe for use as advertised and promoted.

298. Upon information and belief, the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC., their subsidiaries, associated venturers, agents and employees, will continue to manufacture, distribute, advertise, market, sell and promote the use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") unless otherwise restrained by this Court.

299. That the continued manufacture, distribution, advertisement, marketing, sale, and promotion of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC. presents an imminent danger of serious, permanent, and irreparable damage to the public health, safety and welfare.

300. That the the contamination of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") represents a significant potential for illness, disability and death to all those so unfortunate as to be situated at risk from such exposure to phenoxy herbicides so contaminated.

301. The many human beings such as the deceased plaintiff PAUL REUTERSHAN, and all those others so unfortunate as to have been similarly situated were placed in jeopardy as a result of the manufacture, distribution, advertising, marketing, promotion and sale of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC.

302. That the serious, permanent, and irreparable damage to the public health, safety, and welfare resulting from the continued efforts of the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC. to manufacture, distribute, advertise, market, sell and promote the use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") in wanton and reckless disregard for the toxic effects of such contaminants upon the public health, safety and welfare violates the constitutional rights of those so unfortunate as to be at risk from the toxic effects of such contaminants not only during this generation but in succeeding generations, which rights have been retained by the People under the Ninth Amendment of the Constitution and as such are protected under the "due



process" and "equal protection" clauses of the Fifth Amendment of the Constitution and the "privileges or immunities," "due process" and "equal protection" clauses of the Fourteenth Amendment of the Constitution.

303. That the deceased plaintiff PAUL REUTERSHAN, and all those others so unfortunate as to have been similarly situated, have already been, and to the extent that such individuals are still alive will continue to be, seriously, permanently and irreparably damaged as a result of the actions of the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC. which individually and collectively, alone and in concert with others, did manufacture, distribute, advertise, market, sell and promote the use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) which said corporate defendants knew, or with the exercise of reasonable care and caution should have known, were contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD).

304. That all those so unfortunate as to be at risk as a result of the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") will continue to be seriously, permanently and irreparably damaged as a result of the actions of the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC. as those corporate defendants, individually and collectively, alone and in concert with others, continue to manufacture, distribute, advertise, market, sell and promote the use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD) without adequate regard for its toxic effects and in wanton and reckless

disregard of the public health, safety and welfare.

305. Upon information and belief, the estimated cost of treating any of the malignant conditions resulting from exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") will exceed \$10,000 for each year that such condition continues during the life of the victim.

306. Upon information and belief, the estimated economic loss to the families of those victims of malignant conditions or cancers resulting from exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") will exceed \$10,000 for each year that such victims could have been reasonably expected to have been employed and contributed to the maintenance and care of their families.

310. Upon information and belief, the deceased plaintiff PAUL REUTERSHAN was exposed to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, fabricated, advertised, promoted, marketed and sold by the corporate defendants corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin"), which exposure contributed to his illness, disability and and eventual death, while as many as 4.2 million other American servicemen may have been similarly exposed and as a result of such exposure may similarly become ill, disabled, and eventually die as a result of exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical

2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

311. That as a result of exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") the deceased plaintiff PAUL REUTERSHAN became ill and disabled, suffered pain and economic loss, and incurred medical expenses before being released eventually from such anguish and torment through death.

312. That as a result of exposure to phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") as many as 4.2 million American servicemen and an indeterminate number of other persons are at risk of becoming ill and disabled, suffering pain and economic loss, and incurring medical expenses and eventually dying as a result of such illness as did the deceased plaintiff, PAUL REUTERSHAN.

313. That the illness, disability and eventual death of the plaintiff PAUL REUTERSHAN was attributable, directly or indirectly to the acts of the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC., which individually and collectively, jointly and severally, independently and in concert with each other manufactured, formulated, advertised, promoted, marketed and sold phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") in wanton and reckless disregard of the public health, safety and welfare; as a result of which, the deceased plaintiff PAUL REUTERSHAN has sustained,

and all the other 4.2 million American servicemen together with the indeterminate number of other persons, all of whom are so unfortunate as to be similarly at risk, may sustain, general and special damages.

## Declaratory Judgment Claims

314. This is a proceeding seeking a Judgment declaring the rights and legal relations of the parties to the matter in controversy specifically:

315. DECLARING the rights of the deceased Plaintiff and all the other people of the United States, to the protection of their personal health, safety and welfare from the toxic effects of phenoxy herbicides such as 2,4,5-trichlorophenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

316. DECLARING the rights of the deceased Plaintiff and all the people of the United States, not only of this generation but of those generations yet unborn, to protection from the wanton and reckless disregard of the public health, safety and welfare by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC., their several subsidiaries, associated business venturers, agents, and employees, jointly or severally, individually or in concert with each other in the manufacture, formulation, advertising, promotion, marketing and sale of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

317. DECLARING the rights of the deceased Plaintiff and all the people of the United States not only during this generation, but those generations yet unborn, to the full benefit, use and enjoyment of the Environment (considered as the complex system resulting from the union, in the mathematical sense of that term, of natural, social, and societal resources together with all the interactions among those

resources in accordance with the natural, social, and societal processes operative upon those resources) without damage or degradation attributable to the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") and manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC.

318. DECLARING the rights of all the people of the United States, not only of this generation, but of those generations yet unborn, to the protection of their personal health, safety and welfare, and the protection of the Environment (considered as the complex system resulting from the union, in the mathematical sense of that term, of natural, social, and societal resources together with all the interactions among those resources in accordance with the natural, social, and societal processes operative upon those resources) on which they each and all depend, from injury, damage, and degradation as a result of the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") and manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC.

319. DECLARING that the actions of the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC. in marketing, distributing, advertising, selling and promoting the use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") represented and still now represents a threat to the public health, safety and welfare and so violates the rights retained by the deceased plaintiff and all the people of the United States not only of this generation,

but of those generations yet unborn, under the Ninth Amendment of the Constitution of the United States, and as such protected under the "due process" and "equal protection" clauses of the Fifth Amendment and the "due process," "equal protection," and "privileges or immunities" clauses of the Fourteenth Amendment of the Constitution of the United States.

320. DECLARING that the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC. are Trustees of the public health, safety and welfare to the extent that such corporate defendants actually had, or now have, or with the exercise of reasonable concern for the public health, safety and welfare should have had or should now have, knowledge of the dangerous properties and toxic characteristics of the products they manufacture, advertise, promote, market, and sell, in particular phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

321. DECLARING that the continued promotion of the use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. while known to be contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") is an intentional tort.

## Equitable Jurisdiction

322. This action is brought in equity before this court on the following grounds:

323. The subject matter is equitable in nature.

324. This action is brought for the purpose of restraining the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC. from doing serious, permanent and irreparable injury which cannot be adequately compensated in merely money damages to the class represented by now deceased Plaintiff.

325. The declaratory judgment and injunctive relief demanded on behalf of the class are equitable remedies and the substantive character of the rights sought to be enforced by the Plaintiff are historically those resolved in a court of equity.

326. The law does not afford any adequate remedy for the wrong resulting from the actions of the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC.

327. There is no plain, adequate and complete remedy at law as practical and efficient as the equitable relief sought herein, nor are the damages sustained by the class on whose behalf this action is brought as a result of the actions of the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC. capable of adequate recovery in any action at law.



WHEREFORE judgment is demanded on behalf of the plaintiff class herein against the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC., jointly and severally, individually and collectively:

DECLARING the rights of the deceased Plaintiff and all the other people of the United States, to the protection of their personal health, safety and welfare from the toxic effects of phenoxy herbicides such as 2,4,5-trichlorophenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

DECLARING the rights of the deceased Plaintiff and all the people of the United States, not only of this generation but of those generations yet unborn, to protection from the wanton and reckless disregard of the public health, safety and welfare by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC., their several subsidiaries, associated business venturers, agents, and employees, jointly or severally, individually or in concert with each other in the manufacture, formulation, advertising, promotion, marketing and sale of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

DECLARING the rights of the deceased Plaintiff and all the people of the United States not only during this generation, but those generations yet unborn, to the full benefit, use and enjoyment of the Environment (considered as

the complex system resulting from the union, in the mathematical sense of that term, of natural, social, and societal resources together with all the interactions among those resources in accordance with the natural, social, and societal processes operative upon those resources) without damage or degradation attributable to the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") and manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC.

DECLARING the rights of all the people of the United States, not only of this generation, but of those generations yet unborn, to the protection of their personal health, safety and welfare, and the protection of the Environment (considered as the complex system resulting from the union, in the mathematical sense of that term, of natural, social, and societal resources together with all the interactions among those resources in accordance with the natural, social, and societal processes operative upon those resources) on which they each and all depend, from injury, damage, and degradation as a result of the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") and manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC.

DECLARING that the actions of the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST

INDUSTRIES, INC. in marketing, distributing, advertising, selling and promoting the use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") represented and still now represents a threat to the public health, safety and welfare and so violates the rights retained by the deceased plaintiff and all the people of the United States not only of this generation, but of those generations yet unborn, under the Ninth Amendment of the Constitution of the United States, and as such protected under the "due process" and "equal protection" clauses of the Fifth Amendment and the "due process," "equal protection," and "privileges or immunities" clauses of the Fourteenth Amendment of the Constitution of the United States.

DECLARING that the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC. are Trustees of the public health, safety and welfare to the extent that such corporate defendants actually had, or now have, or with the exercise of reasonable concern for the public health, safety and welfare should have had or should now have, knowledge of the dangerous properties and toxic characteristics of the products they manufacture, advertise, promote, market, and sell, in particular phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

DECLARING that the continued promotion of the use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. while known to be contaminated with toxic

synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") is an intentional tort.

IMPOSING upon the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC., as Trustees of the public health, safety and welfare, a non-delegable duty to disclose to the public as part of their efforts to advertise, promote, market and sell phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) whatever information they now have, or with the exercise of reasonable concern for the public health, safety and welfare should have, concerning the dangerous properties and toxic characteristics of such phenoxy herbicides which are contaminated with the toxic synthetic organic chemical 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

DIRECTING the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. as Trustees of the public health, safety, and welfare TO DISCLOSE to the general public as part of their efforts to advertise, promote, market and sell phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") whatever information they have or with the exercise of reasonable concern for the public health, safety, and welfare should have, concerning the dangerous properties and toxic character of such products in order to permit the public to accurately assess the risk associated with the continued use of such products as advertised and promoted.

RESTRAINING the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. from selling, offering for sale, marketing, distributing, advertising and promoting the use of phenoxy

herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin") unless and until such time as said corporate defendants can establish that such advertised and promoted use will not present a risk of injury and damage to the public health, safety and welfare.

DIRECTING the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. to establish out of current corporate earnings a fund in the nature of a reserve against losses sufficient:

1. to REIMBURSE the United States Department of Defense, in particular the Veterans Administration, and the United States Department of Health, Education and Welfare, in particular the Social Security Administration, for the full and complete cost of any and all medical care and treatment rendered by and through such agencies unto the deceased plaintiff and any others so unfortunate to be similarly in need of treatment to the extent that such costs may be attributable to the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin");

2. to REIMBURSE the United States Department of Defense, in particular the Veterans Administration, and the United States Department of Health, Education and Welfare, in particular the Social Security Administration, for any and all payments made to the deceased

plaintiff and/or his family and all those others so unfortunate as to be similar recipients of such benefits as compensation or benefits for disability attributable to the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin");

3. to COMPENSATE the deceased plaintiff and the legal representative of said deceased plaintiff together with all those others so unfortunate to be similarly situated, and their families, for the full and complete economic loss and damages resulting from any disability attributable to the effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin");

4. to REIMBURSE all the stockholders, rate payers and subscribers of public utilities for any costs and expenses incurred by such public utilities as a result of the use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-

tetrachloro dibenzo p-dioxin (TCDD or "dioxin");

TO APPOINT AND DESIGNATE, subject to the continuing jurisdiction and direction of this Court, an appropriate representative of the deceased Plaintiff as Trustee of such a fund for the purpose of administering such a fund for the benefit of said deceased plaintiff and all those others so unfortunate as to be at risk not only during this generation but during those generations yet to come from the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin").

DIRECTING the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES, INC., and NORTHWEST INDUSTRIES, INC. to make payments from such a fund in accordance with the further directions of this Court:

1. to REIMBURSE the United States Department of Defense, in particular the Veterans Administration, and the United States Department of Health, Education and Welfare, in particular the Social Security Administration, for the full and complete cost of any and all medical care and treatment rendered by and through such agencies unto the deceased plaintiff and any others so unfortunate to be similarly in need of treatment to the extent that such costs may be attributable to the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPO-

RATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin");

2. to REIMBURSE the United States Department of Defense, in particular the Veterans Administration, and the United States Department of Health, Education and Welfare, in particular the Social Security Administration, for any and all payments made to the deceased plaintiff and/or his family and all those others so unfortunate as to be similar recipients of such benefits as compensation or benefits for disability attributable to the toxic effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin");

3. to COMPENSATE the deceased plaintiff and the legal representative of said deceased plaintiff together with all those others so unfortunate to be similarly situated, and their families, for the full and complete economic loss and damages resulting from any disability attributable to the effects of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin");

4. to REIMBURSE all the stockholders, rate payers

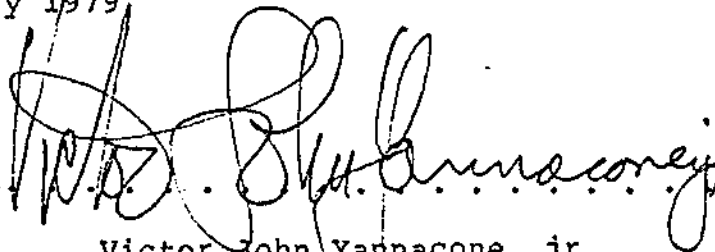


and subscribers of public utilities for any costs and expenses incurred by such public utilities as a result of the use of phenoxy herbicides such as 2,4,5-trichloro phenoxyacetic acid (2,4,5-T) manufactured, formulated, advertised, promoted, marketed and sold by the corporate defendants THE DOW CHEMICAL COMPANY, HERCULES INCORPORATED, and NORTHWEST INDUSTRIES, INC. and contaminated with toxic synthetic organic chemicals such as 2,3,7,8-tetrachloro dibenzo p-dioxin (TCDD or "dioxin");

ALL TOGETHER with such other and further relief as to this Court shall seem just and proper under the circumstances.

DATED at Patchogue, New York,

5 January 1979



Victor John Yannacone, jr.

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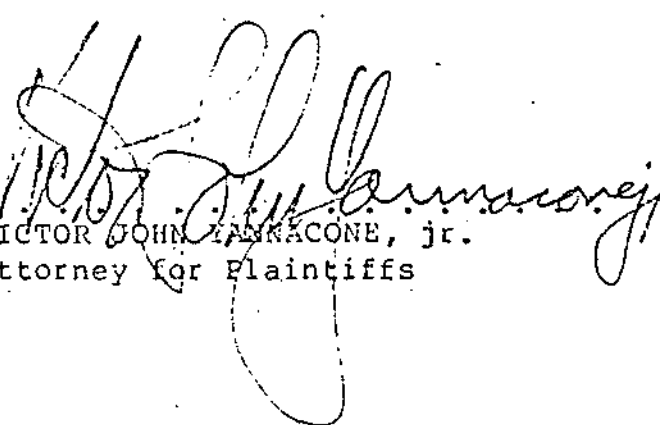
ATTORNEYS' VERIFICATION

STATE OF NEW YORK )  
COUNTY OF SUFFOLK )

VICTOR JOHN YANNACONE, jr., duly affirming under the penalties of perjury states that he is an attorney duly licensed to practice law in the State of New York, and admitted to practice before the United States District Court for the Southern District of New York, and the United States District Court for the Eastern District of New York, and the United States Court of Appeals for the Second Circuit and the Supreme Court of the United States; that he has read the foregoing amended complaint and knows the contents thereof; that the same are true to his own knowledge based upon documents contained in affirmant's files, except as to those portions therein stated to be alleged upon information and belief, and as to those portions, affirmant believes them to be true.

Affirmant submits this affirmation based upon information contained in the files of his firm and because his office is located in Suffolk County, New York and the home of the deceased plaintiff and his family is in Westchester County.

Duly affirmed under the penalties of perjury this 5th day of January, 1979

  
VICTOR JOHN YANNACONE, jr.  
Attorney for Plaintiffs