

INTRODUCTION

“No green anywhere, no grass, no leaves, nothing”¹

So states a government scientist in recounting the effects of the spraying of chemical weapons which were being developed for massive use in Vietnam. It is the consequences of that conduct that this lawsuit addresses. Those consequences include the denuding of vast expanses of Vietnam which, to this day, have never recovered from the chemical weapons which were used to defoliate and poison the land and anyone who happened to be living in those areas. Those consequences include human suffering on a level unimaginable at the time for American and Vietnamese alike who took part in or were the victims of this dirty war. Many years removed and thousands of miles away from that distant land, many Americans have forgotten much of what took place there. However, those who experience and lived through this chemical warfare campaign have not forgotten. In fact, as of January 6, 2005, 11,470,188 Vietnamese have signed petitions in Vietnam expressing the hope that justice can be achieved for the victims of Agent Orange and the other chemicals manufactured, sold and used in Vietnam with such reckless abandon.²

The defendant chemical companies have filed various dispositive motions in an attempt

¹ Statement by Kenneth D. Demaree, U.S. Army Biological Center, at the Third Defoliation Conference, 10-11 August, 1965. (See Exhibit “9” to Moore Affirmation, at page 72). As discussed, *infra*, there were three such conferences that were attended by government scientists and representatives of the major defendant chemical companies. (See Exhibits “7” “8” and “9” to Moore Affirmation.)

² See the statement by Dang Vu Hiep, President of the organizational plaintiff in this case, the Vietnam Association of Victims of Agent Orange/Dioxin. Copies of the Vietnamese language and English language translation are provided. (See Exhibit “41” to Moore Affirmation).

to shut the courthouse door to the millions of Vietnamese nationals who were the victims of a chemical warfare program which involved the indiscriminate and massive spraying of poisons, such as dioxin, for almost ten years over an estimated 12% of the land mass of Vietnam. As we set forth in more detail below, plaintiffs contend that these defendants manufactured and sold to the United States Government (“USG”) a product which they both knew contained poisons, the presence of which could have been avoided had the defendants followed then existing standards in the industry to avoid the presence of poisons in their product. Plaintiffs contend that these defendants knew that the poisons contained in the product they manufactured and sold to the government was highly toxic and posed serious and sometimes fatal health risks to humans and the environment. Finally, plaintiffs contend that these defendants knew how their product would be used in Vietnam.

Thus, plaintiffs ask this Court to rule that these chemical companies violated long standing principles of the laws of nations which forbid the use of poisons as weapons of war, and were complicit in the government’s use of them in ways that violated the law of nations. It is that conduct, cognizable in tort under the Alien Tort Claims Act ("ATS") that this case is about. Try as they might to wrap themselves in the flag, the defendants cannot and should not be permitted to escape liability for their knowing violations of international law. The following statement of facts is incorporated by reference as if fully set forth in all the briefs being filed by the plaintiffs herein in response to the defendants’ various motions.

STATEMENT OF FACTS³

A. Use of Chemical Weapons in Vietnam

In late 1961, President Kennedy approved a joint recommendation of the Departments of State and Defense to initiate, on a limited scale, a chemical warfare campaign in Vietnam involving the use of defoliants. *In re “Agent Orange” Product Liability Litigation*, 597 F.Supp. 740, 775 (E.D.N.Y. 1984)(hereinafter cited as 597 F.Supp at “___”). Operation Trail Dust, as the Air Force’s chemical warfare program was originally called, and which later became Operation Ranch Hand, began its spray missions in January 1962. *Id.*⁴

The initial aerial spraying took place near Saigon. *Id.* Its purpose, ostensibly, was to clear the thick jungle canopy from around roads, power lines and other lines of communications in order to lessen the potential for ambush. *Id.* Most of the spraying was aerial spraying from U.S. Air Force C-123 aircraft. Army personnel also sprayed herbicides on the ground and from helicopters to defoliate the perimeters of base camps and fire bases.⁵ There was also some hand spraying from the ground around gun emplacements and the like to reduce surprise attacks and maintain open lines of fire. 597 F.Supp at 775. By late 1962 approval was granted for offensive use of herbicides to destroy planted fields and crops suspected of being used by the Viet Cong.

³ As discussed in more detail, *infra*, plaintiffs’ statement of facts includes documents that the plaintiffs either possessed or knew about and upon which they relied in bringing the suit, as well as references to facts set forth in prior proceedings in the MDL-381 litigation and facts which are part of the public record or which the Court may take judicial notice of.

⁴ See generally, W. Buckingham, *Operation Ranch Hand, The Air Force and Herbicides in Southeast Asia 1961-1971* at 29-31 (1982); G. Lewy, *American in Vietnam*, 257-66 (1978).

⁵ See generally, Institute of Medicine, *Veterans and Agent Orange, Update 2000*, Washington, D.C., National Academy Press, 2001.

Id. The government's chemical warfare program peaked in 1965 when 45% of the total spraying was designed to destroy crops. *Id.*

At the start of the government's chemical warfare campaign in Vietnam, the spraying of all targets required prior approval from the White House. In late 1962, authority for defoliation target selection in the chemical warfare program was delegated to the US ambassador to the Republic of South Vietnam ("RVN"). In late 1963 authority for crop target selection in the chemical warfare program was delegated by the Ambassador to the White House. First Amended Complaint, ¶ 55.

Although the stated purpose of Operation Ranch Hand was to defoliate forests and mangroves and to destroy crops depriving enemy combatants of food, *Id.*, ¶ 52, this was still chemical warfare employed by the U.S. military, with the knowing participation of the defendants herein, to further the military and foreign policy objectives of the USG in Vietnam. *Id.*, ¶50.

From the beginning, the USG took steps to cover up its involvement in this chemical warfare program. U.S. government policy initially emphasized that the U.S. military was merely assisting the RVN government in the herbicide program. In fact, a 1962 pact assigned the ownership of the herbicides to the RVN government once they were delivered, and RVN soldiers handled the loading and transportation of the herbicides. The plans for herbicide use were coordinated by the U.S. Embassy to the RVN, the U.S. Military Assistance Command of Vietnam and a subdivision of the Saigon General Staff (of the RVN government) code-named "Committee 202." *Id.*, ¶ 56

The United States Air Force ("USAF") aircraft used to spray the herbicides were

camouflaged and equipped with removable identification insignia. When performing crop destruction missions, the aircraft bore RVN insignia, the USAF flight crews wore civilian clothing and were accompanied by a RVN army crewmember, pursuant to a U.S. Department of Defense concept codenamed “Farmgate.” *Id.*, ¶ 57

The USG’s use of chemical weapons to advance its objectives during the Vietnam War escalated in late 1964 as the war escalated. Controls and limitation on spraying were gradually relaxed and the areas sprayed were expanded. A frequent target of the Ranch Hand operation was the complex of roads and footpaths in southern Vietnam used as a supply route by forces loyal to the Democratic Republic of Vietnam (“DRVN”) and the National Liberation Front (“NLF”) personnel, commonly known as the “Ho Chi Minh Trail.” Also heavily targeted by the herbicide campaign were the heavily wooded Demilitarized Zone, the Mekong Delta and U.S. military bases. *Id.*, ¶58

The use of chemical weapons for crop destruction also gradually expanded, and in 1965 alone, 45% of the total spraying was designed to destroy crops. The crop destruction included the spraying of fields suspected of being used by the NLF. However, fields used exclusively by civilians were also frequently sprayed. In 1967 alone at least 20 million liters were sprayed--85% for defoliation purposes and 15% for crop destruction. *Id.*, ¶59

Between 1961 and 1971, at least 19,905 sorties were run by the USAF. Between 1-34 sorties were run daily, with a daily average of 10.7 sorties. A recent study based on US government documents and using sophisticated mapping techniques has estimated that the total volume of herbicides procured and sprayed from 1961-1971 alone exceeded 76 million liters. *Id.*, ¶60

B. The Chemical Weapons Used

Agent Orange was the most widely used chemical weapon, particularly after 1964. 597 F.Supp. at 776. Agent Orange was a 50-50 mixture of the n-butyl esters of 2,4-dichlorophenoxyacetic acid (2,4-D) and 2,4,5-trichlorophenoxyacetic acid (2,4,5-T).⁶ The later component was found to contain the contaminant TCDD or 2,3,7,8-tetrachlorodibenzo-p-dioxin (i.e., dioxin), which is regarded as one of the most toxic chemicals known to man. *See, Report to the Secretary of the Department of Veterans Affairs ("Zumwalt Report"),*⁷ May 5, 1990, p.4 (See Exhibit "1" to Moore Affirmation).⁸

Dioxin is a family of chemicals (75 in all) that does not occur naturally, nor is it intentionally manufactured by any industry. The most toxic dioxin is called 2,3,7,8 – TCDD.

⁶ *See, A.L. Young, J.A. Calcagni, C.E. Thalken & J.W. Tremblay, The Toxicology, Environmental Fate, and Human Risk of Herbicide Orange and its Associated Dioxin, USAF OEHL Technical Report (Oct. 1978); R. Bovey & A. Young, The Science of 2,4,5-T and Associated Phenoxy Herbicides (1980).*

⁷ Admiral E. R. Zumwalt, Jr., was the top military commander in Southeast Asia for some period of time. On October 6, 1989, he was appointed as special assistant to Secretary Derwinski of the Department of Veterans Affairs to assist the Secretary in determining whether it is at least as likely as not that there is a statistical association between exposure to Agent Orange and a specific adverse health effect. In carrying out that mission, Zumwalt reviewed the numerous data relevant to the statistical association between exposure to Agent Orange and adverse health effects. He also reviewed and evaluated the work of the Scientific Council of the Veterans' Advisory Committee on Environmental Hazards and commissioned independent scientific experts to assist him in evaluating the validity of numerous human and animal studies on the effects of exposure to Agent Orange and/or exposure to herbicides containing 2,3,7,8 tetrachlorodibenzo-p-dioxin (TCDD).

⁸ *See also CDC Protocol for Epidemiologic Studies on the Health of Vietnam Veterans (November 1983), p. 4.* The CDC Protocol also contains a literature review as of 1983 of the health effects on animals and humans exposed to herbicides and dioxin, pp. 63-78. The literature review documents health problems such as chloracne, immunological suppression, neurological and psychological effects, reproductive problems such as birth defects, carcinogenic effects such as soft tissue sarcomas, lymphomas and thyroid tumors, and various gastrointestinal disorders.

Dioxins are produced as byproducts of the manufacture of some herbicides (for example, 2,4,5-T), wood preservatives made from trichlorophenols, and some germicides. Dioxins are also produced by the manufacture of pulp and paper, by the combustion of wood in the presence of chlorine, by fires involving chlorinated benzenes and biphenyls (e.g., PCBs), by the exhaust of automobiles burning leaded fuel, and by municipal solid waste incinerators. *Zumwalt Report*, p.4, n.1. Dioxin is one of the most, if not *the* most, toxic synthetic chemicals known to science. *Id.*, ¶62.

Other herbicides were used for both defoliation and crop destruction including Agent Blue (cacodylic acid), Agent White (a mixture of 80% tri-isopropanol anime sale of 2,4-D and picloram), Agent Purple (a formulation of 50% n-butyl ester of 2,4-D, 30% n-butyl ester of 2,4,5-T, and 20% isobutyl ester of 2,4-D), Agent Green (100% n-butyl ester of 2,4,5-T) and Agent Pink (60% n-butyl ester of 2,4,5-T and 40% isobutyl ester of 2,4,5-T). 597 F.Supp at 775-776; First Amended Complaint, ¶61. Approximately 65% of the herbicides sprayed contained 2,4,5-T. *Id.*, at ¶62.

Phenoxy herbicides such as Agents Orange, White, Pink and Green are growth regulators that kill certain plants by inducing malfunctions in the growth process. 597 F.Supp. at 776. Agents Pink and Green were rarely used after Agent Orange was introduced in early 1965. *Id.* at 775-776.

Unlike civilian applications of the components contained in Agent Orange, which are diluted in oil and water, Agent Orange was sprayed undiluted in Vietnam. *Zumwalt Report*, p. 5.

C. The Extent of Their Use

Over time the amount of chemical compound sprayed per acre increased. The first

mission in 1962 lasted three days and used 7,920 gallons of herbicide to cover 6,920 acres. *See* W. Buckingham, *Operation Ranch Hand*, *supra*, at 36; 597 F.Supp. at 776. In September 1962, in a four-week period, Ranch Hand personnel sprayed more than 9,000 acres with 27,648 gallons of Agent Purple, clearing vegetation along rivers and canals on the Cau Mai Peninsula in the Mekong Delta. W. Buckingham, *Operation Ranch Hand*, *supra*, at 62; 597 F.Supp. at 776. This rate of three gallons of herbicide per acre became the standard for spraying in Vietnam. 597 F.Supp. at 776. This rate was three times the rate used domestically for herbicides such as 2,4-D and 2,4,5-T. *Id.*; *see also*, First Amended Complaint, ¶ 64.

Occasionally, because of malfunctions and the need of aircraft to escape enemy fire, much higher concentrations were dropped suddenly on small areas. Miscalculations, drifts and re-spraying undoubtedly caused heavier concentrations in some instances than even the planned three gallons per acre. 597 F.Supp. at 776.

As the war in Vietnam escalated, so did the use of chemical weapons. In 1967, the peak year for herbicide spraying in South Vietnam, 1,687,758 acres were sprayed – 85% for defoliation and 15% for crop destruction. *Id.*; *see also* W. Buckingham, *Operation Ranch Hand*, *supra*, at 129.

During the course of Operation Trail Dust, Operation Ranch Hand and the final period of the war, large numbers of Vietnamese combatants and civilians were directly exposed to herbicides by spraying. In addition to those who were sprayed directly with the herbicides, many more were exposed indirectly, by coming into contact with soil, plants, food and water that were contaminated. It has been estimated that up to 4 million Vietnamese were exposed to herbicides during the period 1961-1971 alone. First Amended Complaint, ¶81

Extensive environmental damage with devastating ecological effects resulted from the chemical warfare campaign, such as the near destruction of the mangrove forests in southern Vietnam. *Id.*, ¶82

In addition, residues from these highly toxic chemicals transported, loaded and stored at or near USAF bases in Vietnam, such as Bien Hoa, Da Nang, Nha Trang, Phu Cat, the Aluoi and Asau Valleys, have led to contamination of the soil and food chains in the surrounding areas, resulting in exposure to dioxin by civilians that continues to this day. The use of highly toxic chemicals in the war in Vietnam has correctly been called the “largest chemical warfare operation in history, producing considerable ecological as well as public health damage.” *Id.*, ¶83.

The military dispensed Agent Orange in concentrations 6 to 25 times the manufacturers’ suggested rate. At the time, the Department of Defense (“DOD”) claimed that it did not consider Agent Orange toxic or dangerous to humans and took few precautions to prevent exposure to it. *Zumwalt Report*, p. 5. Yet, as Admiral Zumwalt pointed out, “evidence readily suggests that at the time of its use experts knew that Agent Orange was harmful to military personnel.” *Id.*

Dr. James R. Clary explains how the USG and these defendants could manufacture and use such a toxic chemical, even though they were aware of the ill effects it would cause:

When we (military scientists) initiated the herbicide program in the 1960's, we were aware of the potential for damage due to dioxin contamination in the herbicide. We were even aware that the ‘military’ (citation omitted) formulation had a higher dioxin concentration than the ‘civilian’ version due to the lower cost and speed of manufacture. However, because the material was to be used on the ‘enemy’, none of us were overly concerned. We never considered a scenario in which our own personnel would become contaminated with the herbicide. And, if we had, we would have expected our own government to give assistance to veterans so contaminated.

Zumwalt Report, p. 6.⁹

There is also little doubt that millions of Vietnamese were exposed to some amount of dioxin during the pendency of the USG's spraying operations. The maps and tables from Volume I of the *Review of Literature on Herbicides, Including Phenoxy Herbicides and Associated Dioxins* suggest the extent of the spraying. Although no one can tell exactly how much dioxin the Vietnamese were exposed to, the estimates range from approximately 240 pounds of TCDD to 368 pounds. A study in the *Review of Literature* states as follows: "Overall, the spraying of more than 11.3 million gallons of Orange/Orange II from August 1965 through February 1971 is estimated to have released close to 240 pounds of TCDD . . . " *Id.* at 2-22; 597 F.Supp. at 778.

Another estimate for the years 1962 to 1971 is 368 pounds. *See* B.B. Dan, Vietnam and Birth Defects, 252 J.A.M.A. 936 (1984). The differences are not significant for present purposes given the large amount of Agent Orange sprayed and the wide area over which it was spread. The following table gives some picture of the extent of the use of chemical weapons by the USG during the Vietnam War.

⁹ Letter from Dr. James R. Clary to Senator Tom Daschle (September 9, 1988). Dr. Clary was a former government scientist with the Chemical Weapons Branch, BW/CW Division, Air Force Armament Development Laboratory, Elgin AFB, Florida. Dr. Clary was instrumental in designing the specifications for the A/A 45y-1 spray tank (ADO 42) and was also the scientist who prepared the final report on Ranch Hand; Herbicide Operations in SEA, July 1979.

APPLICATION OF HERBICIDES IN THE VIETNAM WAR BY YEAR
Millions of Gallons

Year	1962- July 1965	Aug-Dec 1965	1966	1967	1968	1969	1970	1971	Total
Orange	NA a	.37	1.64	3.17	2.23	3.25	.57	.00	11.22
White	NA a	0	.53	1.33	2.13	1.02	.22	.01	5.24
Blue	NA a	0	.02	.38	.28	.26	.18	.00	1.12
Total	1.27	.37	2.19	4.88	4.63	4.53	.97	.01	18.95

In re "Agent Orange," 597 F.Supp. at 779; From Veterans Administration, Review of the Literature on Herbicides, Including Phenoxy Herbicides and Associated Dioxins, Vol. I Table 2-1, at 2-16.

The total land area that the USG admits to have sprayed with its chemical weapons numbers in the millions of acres.

ANNUAL NUMBER OF ACRES SPRAYED IN VIETNAM

Year	Acres
1962	5,724
1963	24,920
1964	93,869
1965	221,552
1966	608,106
1967	1,570,114
1968	1,365,479
1969	1,365,754
1970	294,925

In re "Agent Orange," 597 F.Supp. at 779; From Veterans Administration, Review of Literature on Herbicides, Including Phenoxy Herbicides and Associated Dioxins, Vol. I Table 2-2, at 2-17.

According to an article by Jeanne Stellman in *Nature*, over 45 million liters of Agent Orange alone were sprayed in Vietnam. Stellman et al, "The Extent and Patterns of Usage of Agent Orange and Other Herbicides in Vietnam." *Nature*, Vol. 422, 17 April 2003. (See Exhibit "2" to Moore Affirmation.)

Thomas Whiteside wrote in his 1970 book *Defoliation* that almost 5 million acres were defoliated in Vietnam, about 12% of the entire country. "The military sprayed or dumped on Vietnam fifty thousand tons of herbicide, of which twenty thousand tons have apparently been straight 2,4,5-T." Whiteside, Thomas. *Defoliation*. New York: Ballantine Books, 1970, p. 41. (See Exhibit "3" to Moore Affirmation.)

To enhance the amount that could be discharged at any one time, the C-123 cargo planes, which were the primary aircraft used to spray the poisoned chemicals over Vietnam, were specially outfitted so as to maximize both the quantity of and the speed at which the chemical poisons could be sprayed. "Each of these aircraft has been fitted out with tanks capable of holding a thousand gallons. On defoliation missions, the herbicide carried in these tanks is sprayed from an altitude of around a hundred and fifty feet, under pressure, from thirty-six nozzles on the wings and tail of the plane." *Id.*, p. 7. "The equipment is calibrated to spray a thousand gallons of herbicidal mixture at a rate that works out, when all goes well, to about three gallons per acre. Spraying a thousand-gallon tank load takes five minutes. In an emergency, the tank can be emptied in thirty seconds." *Id.*, p. 8.

D. The Defendants' Knowledge of the Use of and the Dangers of Dioxin

The defendant chemical companies knew four critical facts: (1) their products contained the poison dioxin as well as other toxic chemicals; (2) the presence of dioxin was unnecessary and was present only because the defendants failed to follow the proper procedures in the manufacture of their products; (3) the presence of dioxin and other toxic chemicals posed a grave health risk to human beings, animals and the environment; and (4) their product was employed by the USG in a chemical warfare operation in Vietnam.

In the early 1960's, the USG entered into a series of production and procurement contracts with the defendants for the manufacture and sale of chemical compounds for use in a chemical warfare program in Vietnam. The products were delivered in containers without any label detailing their composition but were instead marked with color-coded three-inch bands, in accordance with the type of herbicide (orange, purple, blue, etc.). First Amended Complaint, ¶ 85. These contracts made no mention of dioxin or the need for dioxin. Defendants were able to sell to the government as much as they were able to produce and as fast as they were able to produce it. *Id.*, ¶86

The initial government criteria for defoliation agents stated that the selected agent should “be safe to handle while in storage, shipment or operation . . . [and] . . . should not be injurious to the health of man and animals who come in contact with it during and after military applications.” (See Exhibit “4” to Moore Affirmation.) Clearly, the dioxin that resulted from the defendants’ production of Agent Orange and other chemicals did not meet this initial specification. In addition, it is undisputed that Monsanto actually helped write the government specifications for 2,4,5-T, placing even more responsibility on them to maintain those standards.

(See Exhibits “5 ” and “6 ” to Moore Affirmation.)

Defendants do not deny that they had knowledge as to what use the U.S. military was going to make of its chemical products. *See, infra*. They do not deny, nor could they realistically do so, that they knew that the government was going to use their products in a wide-spread and indiscriminate campaign of chemical warfare in Vietnam, and in other countries in Southeast Asia.

In 1962, the government called for grant proposals from the chemical industry for synthesizing and developing “better,” faster-acting herbicides and defoliants. Three defoliation conferences were held (29-30 July 1963, 5-6 August 1964 and 10-11 August 1965) to discuss the results of this collaborative work. The excerpts from the Proceedings of these conferences reveal close collaboration between industry and government and close organization and control by the Crops Division of Fort Detrick. The excerpts show that the ultimate goal, using these biological/chemical weapons in Southeast Asia, was discussed.¹⁰

(i) Defendants’ Knowledge of Dioxin and its Dangers

During the period between 1961 and 1975, defendants knew that in cases of continuous exposure, dioxin might be extremely hazardous to humans in amounts as low as 1 part per million (ppm), the lowest level at which, at the time, defendants claimed that dioxin could be readily detected. Indeed, defendants knew that dioxin could be hazardous at levels far lower.

First Amended Complaint, ¶94

¹⁰ Attached as exhibits “7 ” “8” and “9” (DCI, DCII, DCIII) to the Moore Affirmation. Due to the length of these volumes, only the relevant pages from the notes to each defoliation conference, including the list of attendees, have been attached as exhibits. The entire defoliation conference notes can be found in the Alvin L. Young Collection on Agent Orange, at <http://www.nal.usda.gov/speccoll/findaids/agentorange/>.

Defendants were aware at the time of procurement and production that even extremely small quantities of dioxin, as little as 5 parts per trillion (ppt), were capable of producing birth defects, cancer and death in laboratory animals. *Id.*, ¶¶91-92.

Defendants knew long before procurement and production that certain hazards could arise from dioxin contamination, including, *inter alia*, chloracne, a severe and systemic disease of the skin and liver damage; yellow atrophy of the liver; severe personality and psychological disorders; as well as, in certain instances, death. *Id.*, ¶95

For example, in 1949, an accidental spill occurred at defendant Monsanto's chemical plant in Nitro, West Virginia, in which a compound containing dioxin was dispersed throughout the building, exposing the defendant's workers to the toxic substance. Many of the workers at the Nitro plant developed serious health problems and developed symptoms, in some cases severe and intractable, of chloracne and other conditions soon after the accident. *Id.*, ¶¶ 96-97

In 1954, an outbreak of serious and permanently disfiguring forms of chloracne, as well as diseases of the blood-forming elements of the body, including liver disease, occurred among workers at a Diamond Alkali plant, who were working with phenoxy herbicides, including 2,4,5-T. *Id.*, ¶99. A doctor who inspected the plant after this incident expressed his concerns about the toxicity of the chemical responsible for the chloracne. He stated that "the skin disease is serious" and that "it is impossible to believe how disfiguring this disease is and what a social disability it is." He also explained to the Diamond management that if the workers were being exposed "to more than the maximum amount, we are going to have some liver deaths, - yellow atrophy of the liver." (See Exhibit "10" to Moore Affirmation.) Beginning in 1960, a dermatologist named Jacob Bleiberg began making rounds in the chemical plant in Newark in

order to see workers and treat their skin conditions. In 1963, he observed not only many cases of chloracne, but also suspected that some of the workers were suffering from porphyria cutanea tarda, a serious liver disorder. Dr. Bleiberg alerted Diamond management to his concerns. (See Exhibit “11 ” to Moore Affirmation.) In 1972, Dr. Bleiberg wrote a letter to the editor of the New York Times that was never published. It described some of his findings in the Diamond workers. He notes that “fifty percent of the men developed chloracne...two workers died of liver disease...one man died of liver cancer...almost all of the workers complained of severe fatigue...and 20% of our men had abnormal blood sugar tests indicating diabetes.” (See Exhibit “12” to Moore Affirmation.) He did this investigation at the request of Diamond management, indicating that they were aware of all of his findings.

There were a number of other incidents which the defendants were aware of at the time that clearly signaled the extreme toxicity of dioxin in the chemicals they were manufacturing and selling to the government.

Between 1952 and 1954, workers at the C.H. Boehringer Sohn Company of Germany who were engaged in the production of trichlorophenol (TCP), a chemical closely related to and a component of, 2,4,5-T, developed extremely severe cases of chloracne . The chloracne was so severe that the manufacture of TCP was halted at all Boehringer facilities. The TCP was also found to be extremely lethal in laboratory animals, causing skin lesions and liver necrosis in addition to death. (See Plaintiff’s Motion for Reconsideration in *Isaacson v. Dow Chemical et al.*, 98-CV-6383, Brief, p. 104-05)¹¹ By 1956, the manufacture of TCP was temporarily banned

¹¹ The Court is obviously aware and already in possession of the factual assertions made by the former U.S. veterans in *Isaacson* and other related litigations, as well as the exhibits relied on therein. They will not be reproduced in this litigation, unless the Court specifically requests

in Germany. First Amended Complaint, ¶103. Throughout the 1950s defendant Dow remained in close contact and consultation with Boehringer and other German firms concerning the toxicity of the substance. Dow at that time knew of severe diseases, including chloracne, amongst chemical workers. *Id.*, ¶102 It shared this knowledge with the other defendants herein during the period 1961-1975, and in particular in 1965. *Id.*, ¶ 107. The defendants were also aware of similar experiences at French companies. *Id.*, ¶102

The defendants were aware, as well, of an incident of contamination involving human deaths from elements of dioxin in perchloronaphthalene (Perna) wherein levels as low as low as 5-10 ppb caused worker deaths and the death of the father of one of the workers. (See Exhibit “13” to Moore Affirmation).

Defendants were also aware of defendant Diamond Alkali’s experience with 2,4,5-T in Columbia, South America. Starting in 1962, Diamond sold 2,4-D and 2,4,5-T to Quimor, LTD of Bogota, Columbia. In 1963 Diamond Alkali began to receive a series of complaints from customers and employees of one of Diamond’s customers, a Columbian company, Quimor, LTD. These complaints of illness, resulting from the use of Diamond’s 2,4,5-T product, included the following: (a) In Bucaranga, Cali, Medellin, and Cartagena, Columbia, over 75 workers and clients of Quimor experienced problems due to use of Diamond’s 2,4,5-T, including, but not limited to, chloracne and related symptoms. First Amended Complaint, ¶100. These conditions were so severe that many of the workers required hospitalization, some for several months, and showed no improvement; (b) Horses, used in the application of the product, also experienced loss

the plaintiffs to do so. To the extent not inconsistent with the plaintiffs’ position in this litigation, they are expressly adopted and incorporated herein.

of hair, skin lesions, and in one case, death; and (c) Cattle grazing on areas sprayed with the 2,4,5-T became seriously ill. (See Exhibit “14” to Moore Affirmation.)

Quimor made defendant Diamond aware of each complaint. In light of these complaints, as well as its knowledge of the toxicity of its product, Diamond eventually settled with Quimor’s affected customers and agreed to the return of its unused 2,4,5-T product from Columbia, without payment. First Amended Complaint, ¶100

In February 1964, at Dow’s plant in Midland, Michigan, more than 40 workers developed chloracne, some quite severe, due to the presence of dioxin. At this time, Dow believed that extreme exposure to dioxin could result in “general organ toxicity,” as well as “psychopathological,” and “other systemic problems.” *Id.*, ¶ 106. As a result of this experience with chloracne, Dow decided to explicitly inform the other defendants of its experiences and knowledge, going back to the 1940s. It organized a meeting in Midland, Michigan in March, 1965 which candidly shared all of this information with the defendants, including defendants Hooker, Hercules and Diamond Alkali. *Id.*, ¶102-108 Though representatives from Monsanto were not present at this meeting, Dow shared the same information with them at the time. (See Exhibit “15” to Moore Affirmation.)

The chemical companies agreed at the Midland meeting in March 1965 that one ppm of dioxin was an acceptable level. This was based solely on the fact that the gas chromatography tests could only detect levels down to one part per million. (See Exhibit “16 ” to Moore Affirmation.) However, rabbit ear tests were able to detect dioxin levels as low as 4 parts per billion at the time. (See Exhibit “17” to Moore Affirmation.) Even adopting this arbitrary tolerance level, the defendant chemical companies sold millions of gallons of Agent Orange to

the government with dioxin levels much greater than one ppm. (See Exhibit “18” to Moore Affirmation.) Despite this agreed upon tolerance level, and the knowledge of the chemical companies as to the methods for reducing dioxin, internal documents demonstrate that as late as 1969, Monsanto was still attempting to lower dioxin content from 50 ppm to 5 ppm. Even though, at the time, Monsanto knew that one ppm was the accepted industry tolerance level, their goal was only to reduce dioxin to 5 ppm. (See Exhibits “19” “20” and “21” to Moore Affirmation.)

Throughout this period, all of the chemical companies produced 2,4,5-T with dioxin content greater than one ppm, often greater than 5 or 10 ppm, and sometimes much more. One Diamond Alkali document from as late as 1969 refers to tests done on TCP from 1965 in which dioxin levels reached as high as 140 ppm. (See Exhibit “18” to Moore Affirmation.)

In the 1940s a spill of TCP/dioxin at a facility of defendant Hooker Chemical Company caused cases of chloracne in its workes that persisted for decades. First Amended Complaint, ¶101.

All of the defendants herein were aware of the foregoing incidents of dioxin poisoning and that the Agent Orange that they were producing contained extremely dangerous levels of dioxin. *Id.*, ¶109.

A number of memos written before and during the time in question within and among the chemical companies demonstrate the defendants’ depth of knowledge as to the extreme toxicity of dioxin:

From a letter from Boehringer to Hooker in 1957: “[Dioxin has] a really sinister character.” (See Exhibit “22” to Moore Affirmation.)

A Diamond memo from 1957 calls dioxin “an extremely toxic material.” (See Exhibit “23” to Moore Affirmation.)

A Monsanto memo refers to information gathered from Dow: “According to them [Dow] it is the most toxic compound they have ever experienced. It is presumably toxic by skin contact, as well as by inhalation. According to Dow is it 100 times as toxic as parathion. It is, likewise, capable of causing incapacitating chloracne.” (See Exhibit “24” to Moore Affirmation.)

Another Monsanto memo from 1965 suggests that “very conceivably, [dioxin] can be a potent carcinogen.” (See Exhibit “15” to Moore Affirmation.)

Dow memo, 1965: “The effect of dioxin is systemic.” “In Germany, two workmen died, presumably due to exposure to dioxin.” (See Exhibit “25” to Moore Affirmation.)

These are just a few of the examples that indicate the vast knowledge of the defendants as to the exceptional toxicity of dioxin and its potential to harm humans and animals.

Notwithstanding its knowledge of the toxicity of dioxin and its presence in the product it was providing to the United States Government, the defendants did not take adequate or reasonable measures to reduce the dioxin content of their products or to otherwise prevent or mitigate their toxicity to humans, in particular plaintiffs herein and others similarly situated, who inevitably would come into contact with these chemicals. Indeed, the dioxin contamination in some samples of the defendants’ 2,4,5-T was as high as 140 ppm, a level clearly capable of inflicting devastating injury and death on many thousands of Vietnamese people, including innocent civilians. First Amended Complaint, ¶114

Nor did the defendants take adequate or reasonable measures to prevent or mitigate the disastrous effect of the herbicides on the environment of the regions in which it knew it would be sprayed. *Id.*, ¶115

(ii) Defendants’ Knowledge That Dioxin Was Unnecessary and Avoidable

As the government asked the chemical companies to produce more and more herbicide as the war went on, it is apparent that the quality control, to the extent it was ever there, began to decrease. With greater demand, the companies in effect sped up their production line, which led to higher temperatures and pressure in the production process. The defendants knew from the experiences of Boehringer and another German company, Badische, that higher temperatures and pressure lead to greater dioxin content. After Boehringer shut down its plant in the 1950's due to dioxin contamination, it discovered why dioxin was formed and how to avoid it. The company later reopened its plant and managed to keep dioxin levels at a reasonably low level. This new process involved keeping an upper temperature limit of between 150 and 155 degrees Centigrade. In Boehringer's system, an alarm would go off when the temperature rose above 157 degrees. This meant that the reaction to form TCP (when dioxin is normally produced) took 12 to 13 hours, much longer than with higher temperature. It shared this information with the chemical companies in 1957, after it had experienced a measure of success in avoiding dioxin formation. (See Plaintiff's Motion for Reconsideration in *Isaacson v. Dow Chemical et al.*, 98-cv-6383, Exhibits E-3, E-6, and E-16)(*"Isaacson Motion"*).

Though the defendants knew in the 1950's that decreasing temperature in the autoclave reaction would greatly lower levels of dioxin in their 2,4,5-T, they failed to use these precautions. (See Exhibits "26" "27" and "23" to Moore Affirmation.) Dow's reaction temperature during the early 1960's ran as high as 212 to 225 degrees, nowhere near the safe level of 150 degrees, and the reaction took only 45 minutes. (See *Isaacson Motion*, Exhibit E-32.) The reason for this was that lowering the temperature of the reaction and therefore slowing down the process would have cost more and taken longer.

Boehringer commented on this reality in a 1961 article: “It is certain that the operating methods we use here are much more expensive with regard to apparatus, solvents, energy (power) and labor than is customary for similar methods. However, the costs are justified in order to have safe operations.” (See *Isaacson* Motion, Exhibit E-9 at page 18.) Apparently none of the Defendants was willing to invest more time or money in the process to make it safer.

Since the government specifications specified that no contaminants like dioxin should be present in the end product, clearly an increase in the level of dioxin was unacceptable. Yet, defendants like Monsanto consistently showed high levels of dioxin in their product. In fact, a Monsanto document from 1966 indicates that up to 50% of the lots of 2,4,5-T that were tested failed to meet specifications and showed inordinately high amounts of dioxin. (See Exhibit “28” to Moore Affirmation.) An official position paper published by the defendant Monsanto called dioxin an “unwanted, altogether useless contaminant.” (See Exhibit “29” to Moore Affirmation.)

Not only did the defendants know that the product they were selling at a profit to the government contained the poison called dioxin, they knew that the presence of dioxin in their products was unnecessary and avoidable. Indeed, there is no mention of dioxin, or the need for dioxin, in any of the military specifications. Clearly, dioxin was not a necessary component of 2,4,5-T as a defoliant.

(iii) Defendants’ Knowledge of the Government’s Use of Agent Orange

The defendants knew the use their product would be put to, and they knew that the product that they were selling to the United States government was many times stronger than that which was permitted for domestic use in the United States. The recommended concentration of 2,4,5-T for use in the domestic commercial Dow product Esteron was 3/4 to 1 pound acid

equivalent per acre. The concentrations used in Vietnam averaged 13 times this amount. Thomas Whiteside made a calculation based on the concentration sprayed, average rainfall, and typical habits of a Vietnamese woman, and concludes that a woman in an affected area who drank 2 liters of contaminated water a day would be “absorbing into her system a percentage of 2,4,5-T only slightly less than the percentage that deformed one out of every three fetuses of the pregnant experimental rats.” (See Exhibit “3” to Moore Affirmation, at p. 30-31) *See also, Zumwalt Report*, at p. 5 (“The military dispensed Agent Orange in concentrations 6 to 25 times the manufacturer’s suggested rate.”)

Whiteside also cites a Dr. Pfeiffer, a University of Montana biologist, who discussed the additional impact of the quick release of the herbicide tanks. He remembered an anecdote where a pilot flying over a “friendly” refugee camp had engine problems and dumped his entire load of herbicides “on or near the village.” (See Exhibit “3” to Moore Affirmation, at p. 32.)

The defendant chemical companies knew that the product they supplied to the government would be used for military operations in Vietnam. Indeed, at least one Dow executive was aware of the names and locations of specific air force bases in Vietnam. (See Exhibit “30” to Moore Affirmation.)

The defoliation conferences held by the USG, which was attended by representatives of many of the defendants, talked explicitly about the fact that the chemicals being developed would be used as part of the weaponry of war. General Delmore, the commanding officer of the U.S. Army’s Edgewood Arsenal, authored a paper at the first defoliation conference entitled, “Importance of Defoliation in Counterinsurgency Operations.” (See Exhibit “7” to Moore

Affirmation, at p. 11). This paper talked specifically about the use of defoliation chemicals in Vietnam against the guerilla insurgency. *Id.* He goes on to state the case for chemical warfare:

And remember, today we are not engaged in a war in Southeast Asia, we are only advisors assisting that country to carry on, but tomorrow morning perhaps we may be engaged in similar type operations, not over there, but perhaps in some other part of the world. We never know when this is going to happen. We are in need right now of chemicals that will do the job at an earlier time, and in a quicker period.

Id., at p. 12. Slides on the effect of the defoliation efforts in Vietnam were shown to the chemical company executives and scientists who attended these conferences. *Id.*, at p. 23.

At the third defoliation conference in 1965, the development of defoliants and herbicides was discussed in military terms in relation to the operations in Vietnam. Colonel Vincent L. Ruwet stated as follows:

We are delighted to see your interests in the subject of defoliation for military purposes, and I would like to welcome our guests from the military who have an interest and a need to know in this phase of what is now termed “modern weaponry” that has gained some prominence in operations in Vietnam. We welcome representatives of our contractors who have concerned themselves in research on defoliation.

(See Exhibit “9” to Moore Affirmation, at p. 9)

It is an irrefutable fact, and a lasting legacy of the shame of the Vietnam War, that these chemical weapons were employed with little regard for human life in Vietnam. Entire areas were denuded, forcing out those, like the Montagnards, who had inhabited their areas for centuries, leading to the forced relocation of entire villages into resettlement camps. The mangrove forests in the south of Vietnam were decimated. Indeed, this indiscriminate use of chemical weapons was not just part of the military campaign, it was also part of the psychological warfare (psywar) campaign to destroy the will of the indigenous people of Vietnam to fight for their liberation.

“Considerable defoliation occurred in unintended areas relatively close to targets; such areas included numerous fruit trees like papaya and jackfruit planted alongside peasant houses in villages, broadleaved agricultural crops such as sweet potatoes, and even a Michelin rubber plantation over the border in Cambodia.”¹²

The defendants’ knowledge, which the government shared, of the unnecessarily high toxicity level of Agent Orange is further evidence of a violation of the law of nations. Defendants were aware at the time of procurement and production that the chemical compounds they were supplying to the USG and the RVN would be used as part of a chemical warfare program in Vietnam. They also knew the extent to which these chemical weapons would be used. Even before the war began, Diamond Alkali was aware that “dioxin is so active as to be a *chemical warfare chemical*.” (See Exhibit “32” to Moore Affirmation.) (Emphasis added). A 1967 Dow memo indicates that they specifically knew of Agent Orange’s intended use:

We are formulating a specification by the government on a formulation established by the military, and are producing a weapon. It has no use in civilian business. It does require specific production facilities. It does present a serious health hazard in our plant if not properly controlled.

(See Exhibit “33” to Moore Affirmation.)

At no time did the defendants object to the intended use of their product for chemical warfare purposes. Instead they produced and supplied their toxic chemical products knowing they would be used for chemical warfare and that their use was in violation of international law.

First Amended Complaint, ¶87.

¹² From an article by Arthur Galston: “Falling Leaves and Ethical Dilemmas: Agent Orange in Vietnam.” Published on the 1999-2001 journal of the Yale Institution for Social and Policy Studies (ISPS), on their website at: <http://www.yale.edu/isps/journal/volume2/galston.html>. See Exhibit “31” to Moore Affirmation.

Defendants were aware at the time of procurement and production that dioxin was a contaminant and by-product of 2,4,5-T, that its presence in their product was unnecessary and could be avoided and that dioxin was extremely toxic to plants, animals and humans and that it would cause injury and death to the plaintiffs and others similarly situated, a group that included military personnel and civilians. Nonetheless, they did not object to the intended use of their product for chemical warfare purposes. Instead they produced and supplied the chemical weapons at a profit knowing that by doing so they were participating and complicit in a chemical warfare operation that violated international law. *Id.*, ¶¶ 88-89.

(iv) Joint Venture

The defendants' knowledge of the toxicity of its product, their knowledge that the presence of dioxin could be prevented in the product they were supplying to the government, as well as their knowledge of the end use intended for their product, are stark evidence that they were engaged in a joint venture to manufacture, sell and supply the aforementioned highly toxic chemicals to the USG and were complicit in their use as chemical weapons in Vietnam, and that this conducted violated international law. Overt acts in furtherance of this joint venture include, inter alia:

- a. Regular, highly secretive meetings and contacts among the defendants at which the problems of the dioxin toxicity of the aforementioned chemicals, such as epidemics and outbreaks of severe illness among the defendants' workers and others were discussed and plans were undertaken so as to prevent the disclosure of the toxic nature of their product. Indeed defendant Dow Chemical was "extremely frightened" that if these fact were to become publicly known, the "situation might explode" and the industry harmed. A letter from V.K. Rowe of Dow to Ross Mulholland of Dow Canada typifies this fear: "the whole 2,4,5-T industry will be hard hit and I would expect restrictive legislation, either barring the material or putting very rigid controls upon it." (See Exhibit "34" to Moore

Affirmation.) It shared this fear with other defendants and it was this fear that motivated the aforementioned concealment;

- b. Actively misrepresenting that there was no history of any adverse medical effects amongst production workers from 2,4,5-T when in fact the defendants were well aware that the opposite was the case. In response to an inquiry about the toxicity of 2,4,5-T, Dow falsely indicated that there had been no serious illness among its workers, despite its knowledge to the contrary. (See *Isaacson* Motion, p. 84-85, and exhibit A-6.);
- c. Regular meetings and contacts amongst the defendants at which the concealment of the toxicity of the aforementioned chemicals was discussed and acted upon;
- d. Regular meetings and contacts at which the defendants acted jointly so as to increase the regulatory limits permissible for the residue of combined 2,4-D and 2,4,5-T on U.S. agricultural products while at the same time attempting to conceal known extreme toxicity of dioxin contained in the defendants' 2,4,5-T;
- e. Monitoring the dioxin levels of one another's chemical weapon products so as to inform one another of the alarming and highly toxic dioxin levels, but at the same time acting together to conceal that information;
- f. Purchasing, mixing and co-mingling one another's 2,4,5-T notwithstanding that this intermingling would compromise the quality and purity of the 2,4,5-T regardless of which defendant originally produced it and would obviate the wide variations between different batches of these chemicals with regard to the levels of dioxin impurities contained therein. Notwithstanding these variations, defendants agreed and acted together to conceal the mixed levels of toxic contamination;
- g. Shipping one another's toxic chemicals to U.S. military installations;
- h. Drafting and writing the specifications for Agent Orange and 2,4,5-T, even those such specifications were supposed to have been written by the DOD for the purpose of binding, limiting and controlling these very defendants. In fact defendants wrote the specifications, intentionally, so as to eliminate any mention or reference to contaminants, impurities, dioxin, 2,3,7,8-tetrachlorodibenzodioxin, chloracnogens and chloracne excitors, despite the fact that defendants were well aware that these chemicals were extremely toxic and would cause severe injury and death when used as chemical weapons in Vietnam.

First Amended Complaint, ¶117.

E. The Government's Knowledge of the Toxicity of Dioxin¹³

The USG had extensive knowledge early on that established that dioxin was a poison and that its use in Vietnam would amount to chemical warfare on a level not seen at that time among civilized nations. That it might be harmful to the intended victims of this campaign seems not to have been of great concern to many in the government.

The recent release of the Nixon tapes in 2002 contains a statement by President Nixon that reflects the general disregard for the Vietnamese people our leaders had at the time, of which the chemical warfare campaign against them was part and parcel. In a private conversation with Secretary of State Henry Kissinger, Nixon states, "The only place where you and I disagree ... is with regard to the bombing,' Nixon said. 'You're so goddamned concerned about the civilians and I don't give a damn. I don't care.'"¹⁴

One of the governmental entities with knowledge of potential hazards of Agent Orange use was the President's Science Advisory Committee ("PSAC"). 597 F.Supp at 797. PSAC was an organization within the White House during the 1960's that provided advice to the President on a "wide variety of national and military problems." During the 1960's PSAC was composed of

¹³ Plaintiffs reiterate that this case is against the defendant chemical companies who manufactured and sold Agent Orange and other toxic chemicals to the government, and not against the government. However, the defendants' complicity with the government in the use of chemical weapons in Vietnam is offered as evidence of the defendants' violation of international law.

¹⁴ "Nixon had notion to use nuclear bomb in Vietnam." By the Associated Press. 28 Feb. 2002.at:<http://www.usatoday.com/news/washington/2002/02/28/nixon-tapes.htm>. See Exhibit "35" to Moore Affirmation.)

18 scientists appointed by the President for four-year terms. "One of the major roles of the PSAC was ... advice to the military." PSAC was assisted by the Office of Science and Technology and chaired by the President's Science Advisor.

Representatives of the Army Chemical Corps briefed PSAC on the "Possible Health Hazards of Phenoxyacetates As Related To Defoliation Operations In Vietnam" on May 9, 1963. Moreover, PSAC was intimately involved with the preparation and distribution in 1963 of a report on "Use of Pesticides" raising serious safety problems; this report was referred to the Joint Chiefs of Staff for review by the Secretary of Defense. The significance of the Army's knowledge is reflected in the fact that as early as 1952, personnel at Edgewood Arsenal learned from Monsanto Chemical Company of toxic byproducts of 2, 4, 5-T production in connection with Edgewood's search for chemicals with possible military applications. In June of 1952, the Army Chemical Center at Edgewood Arsenal acquired information on the 1949 accident at Monsanto's TCP plant in Nitro, West Virginia, from the chief of the Pharmacology Division of the Food and Drug Administration. This information was the subject of a discussion at the Thirty-Sixth meeting of the Advisory Committee on New CW (chemical warfare) held on August 8, 1952 at the Chemical Corps Medical Laboratory. Edgewood scientists were aware of dioxin compounds even before a representative of the Army's Chemical Corps Research and Development Command was sent in 1959 to Europe where he obtained "startling" information regarding the toxicity of dioxin. *See In re "Agent Orange" Product Liability Litigation*, 565 F.Supp. 1263, 1266 (E.D.N.Y.1983)

One member of PSAC testified that sometime in 1965 he became aware that herbicides or defoliant were being used in Vietnam; that one of the constituents of the herbicide Agent

Orange was 2, 4, 5-T; that between March and July of 1965 he became aware that a contaminant called "dioxin" was in the 2, 4, 5-T; that he was aware that dioxin was toxic; that all of these matters were discussed within a subgroup of PSAC concerned with Biological and Chemical Warfare (the "BWCW" panel); that some specific human health effects were discussed but that he could not remember which specific ones; and that the question of human health hazards associated with the presence of dioxin in 2, 4, 5-T was discussed within the full committee of PSAC sometime between April and June of 1965. *Id.*

Other witnesses confirmed the view that PSAC was alerted to the possible health hazards of Agent Orange before the most intensive spraying was started. One member of PSAC testified that he did not transmit his information to President Johnson because he personally did not believe at the time that there was a threat of serious health effects.

Other government officials also had knowledge of potential health problems from exposure to the herbicides. In 1964 a scientist in the Public Health Service in Cincinnati, Ohio, was instructed to determine whether there was a contaminant in the 2, 4, 5-T that could cause "chloracne and liver damage." He wrote to several of the defendants, including Hercules and Dow, requesting samples of their 2, 4, 5-T for purposes of undertaking a study to determine if 2, 4, 5-T could be linked to chloracne and liver damage. He found what he suspected to be chloracne and liver damage after examining rabbit tissue, but he could not definitely assess whether it was caused by the applied chemicals. On the basis of his studies and the published literature, he submitted an application in January 1965 for research which was to begin February 1, 1965, for continued study of 2, 4, 5-T. In the proposal he stated:

The herbicide 2, 4, 5-T is produced and widely used in large quantities and several cases of illness have resulted from contact with the compound. If the toxic compound is not 2, 4, 5-T but some other contaminant, then the manufacturing process might be altered in some way to eliminate the hazardous compound.

In re "Agent Orange," 597 F. Supp. at 798

By 1967, the government began to be concerned with the availability of sufficient quantities of Agent Orange, particularly 2, 4, 5-T, to keep up with the military spraying demands in Vietnam. It began considering construction of a 2, 4, 5-T plant at Weldon Spring. The Weldon Spring project was both initiated and reviewed at the highest levels of the Defense Department. *Id.* The Assistant Secretary of Defense, Installation & Logistics ("I & L"), from May to December 1966, who was Deputy Assistant Secretary (Materiel) in the Office of the Assistant Secretary of Defense, I & L, from December 1966 to June 1970, briefed the Secretary of Defense daily on material requirements, including herbicide needs. Such high level review of herbicide requirements is not surprising since herbicides were recognized as an important component of the government's munitions arsenal for Southeast Asia and their significance to the war effort was confirmed at a meeting with General Westmoreland and his staff. The decision to proceed with an in-house facility was made by the Secretary of Defense, acting upon the recommendation of I & L. *Id.*

Early in 1968 an Army chemical engineer assigned to Edgewood Arsenal's Weapons Development & Engineering Lab, circulated a memorandum dated February 20, 1968 to the "EA staff at WSCP" (Weldon Spring Chemical Plant) specifically addressed to the subject of dioxin in order "to supply [the recipients] with as much information about the stated subject as

possible." The memo diagrams the structure of 2,3,7,8-TCDD, explains how and where dioxin is formed in the 2,4,5-T process and discusses its potential toxicity.

The government's awareness of the potential health hazards posed by dioxin is also evidenced by the numerous references to that compound in the Safety Manual for the Weldon Spring plant. Dioxin is cited six times in the introduction to the manual. Moreover, section 8 of the manual, entitled "DIOXIN," is devoted entirely to safety considerations arising from dioxin exposure. That section opens with the following comment:

Dioxin (2,3,7,8-Tetrachlorodibenzo-P-Dioxin) is a very dangerous chemical and should be avoided at all times. This material is the main cause of chloracne, liver, and kidney damage. Dioxin has been found to kill rabbits by feeding them amounts as low as 0.00005 grams per kilogram of body weight. Chloracne has been produced on a rabbit's ear by repeated application at a concentration of less than one PPM. Although operating temperatures are controlled to prevent this formation, Dioxin may be present in the process steps for the production of the sodium salt of 2,4,5-Tri-chlorophenol in the autoclave, methanol still, and anisole still area. Trace amounts may be evident downstream as far down as the esterification segment of the process.

Id., at 798-99. The section goes on to prescribe protective clothing and equipment and first aid procedures in connection with dioxin exposure.

Among the other departments whose responsible officials had knowledge of safety problems in the production and use of herbicides were the United States Public Health Service, at least as early as 1967; the Centers for Disease Control, through its studies in the early 1960's of Silvex, composed of 2,4,5-T, revealing adverse health effects; the Department of Agriculture whose records relating to registrations and warnings under the Federal Insecticide, Rodenticide and Fungicide Act refer to animal studies and potential human health problems from contact with herbicides in the 1960's; the Department of Commerce, which had been informed by Dow of

chloracne and systemic disorders involved in its production of 2,4,5-T in the mid-1960's; and the National Academy of Science, which in 1968 issued a statement raising many unanswered questions about the adverse effects of herbicides in Vietnam. *Id.*

Typical of the warnings the Department of Agriculture approved for use on herbicides containing 2,4,5-T in the 1960's was that on "Bushwhack," manufactured and sold domestically by Hercules. Users were instructed not to contaminate any body of water; not to graze dairy animals in treated areas within seven days after application; not to contaminate feed or foodstuffs; that the product may cause "skin irritation"; that human beings should "avoid inhaling spray mist"; "that it should not be taken internally"; that all human beings should avoid contact of the product "with the eyes, skin, or clothing" and that in case of such contact should "get prompt medical attention." *Id.*, ¶111

Having argued for over twenty years that the government contractor defense provides them a complete defense in the tort actions brought against them by US veterans, because the government knew as much as the defendants about the dangers of dioxin contained in Agent Orange, the defendants now must live with the reality that this same knowledge condemns them with regard to their liability for violating the laws of nations.

F. Scientific/Current Knowledge About the Dangers of Dioxin

Agent Orange contained dioxin. Dioxin is a potent poison that can cause serious harm to humans. The plaintiffs suffer from diseases that can be caused by or are associated with dioxin poisoning. Dioxin caused the diseases.

The American Heritage Dictionary defines poison as: “1. A substance that causes injury, illness, or death, especially by chemical means. 2. Something destructive or fatal.”¹⁵ Clearly dioxin meets this standard.

“As to the poisonous nature of dioxin and its ability to cause harm to mammals, including homo sapiens, there is no doubt.” 597 F.Supp. at 777. The form of dioxin implicated in Agent Orange is a dangerous, stable, long-lasting chemical. *Id.* at 777-78.¹⁶

The extent to which dioxin is highly toxic to human beings can be seen from the experience of people who were exposed to dioxin at various industrial accidents which have occurred over the years. The conclusion to be drawn from this experience is that “dioxin may be highly toxic to human beings.” 597 F.Supp. at 780. This conclusion is confirmed by experience with contamination around homes and farms. Animal studies also suggest the serious harm that this poison can cause. *Id.*

The teratogenic effects--that is, the effects on a fetus of exposure of the mother during pregnancy--associated with high-level doses of 2,4,5-T in the Bionetics report were subsequently determined to result from a toxic contaminant in 2,4,5-T, identified as 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). TCDD enters the 2,4,5-T product during the manufacture of trichlorophenol

¹⁵ “Poison,” *American Heritage College Dictionary*. Houghton Mifflin: 1993.

¹⁶ See also, e.g., R.E. Tucker, A.L. Young & A.P. Gray, *Human and Environmental Risks of Chlorinated Dioxins and Related Compounds*, sections on Environmental Chemistry, and Environmental Toxicology, 143-341 (1983); M.P. Esposito, T.O. Tiernan & F.E. Dryden, U.S. Environmental Protection Agency, *Dioxins* 230-256 (1980); A. Hay, *The Chemical Scythe* 32 (1982). See generally Veterans Administration, *Review of Literature on Herbicides Including Phenoxy Herbicides and Associated Dioxins* Vols. I, II, III (1981, 1983); Centers for Disease Control, *Protocol for Epidemiologic Studies of the Health of Vietnam Veterans* (Nov. 1983).

(TCP), a necessary precursor chemical for 2,4,5-T; the TCDD generated in the manufacture of TCP carries forward into 2,4,5-T and thus into the phenoxy herbicides containing 2,4,5-T.

It was well known in the 1960's that workers' exposure to dioxin in herbicides caused chloracne. 597 F.Supp. at 782. Since the settlement involving the U.S. veterans in 1984, the scientific community's knowledge of the toxic effects of dioxin has grown. A 2001 review by the National Academy of Sciences concluded that there is sufficient evidence of an association between exposure to herbicides and/or dioxin and soft tissue sarcoma, non-Hodgkins's lymphoma, and Hodgkin's disease, and limited evidence of an association between dioxin or herbicide exposure and cancer of the larynx, bronchus, prostate and multiple myeloma. Institute of Medicine, *Veterans and Agent Orange, Update 2000*, Washington, D.C., National Academy Press, 2001.

Numerous long-term exposure studies have established the carcinogenicity of dioxin in rats,¹⁷ mice,¹⁸ and hamsters.¹⁹ "The consensus of most research is that dioxin is only weakly

¹⁷ Van Miller, J.P., Lalich, J.J., Allen, J.R., "Increased incidence of neoplasms in rats exposed to low levels of tetrochlorodibenzo-p-dioxin in rats," *Chemosphere*, 1977; 9:537-544; Kociba, R.J., Keyes, D.G., Beyer, J.E., et al., "Results of a two-year chronic toxicity and oncogenicity study of 2,3,7,8-tetrachlorodibenzo-p-dioxin in rats," *Toxicol Appl Pharmacol*, 1978; 46:279-0303.

¹⁸ National Toxicology Program, *Bioassay of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin for Possible Carcinogenicity (Gavage Study)*, Technical Report Series No. 209, Research Triangle Park, NC: National Toxicology Program, 1982; Toth, K.J., Sugar, S., Somfai-Relle, S., Renice J., "Carcinogenic bioassay of the herbicide 2,4,5-trichlorophenoxy ethanol (TCPE) with different 2,3,7,8-tetrachlorodibenzo-p-dioxin (dioxin) content in Swiss mice," *Prog Biochem Pharmacol*, 1978; 14:82-93; Della Porta, G., Dragani, T.A., Sozzi, G., "Carcinogenic effects of infantile and long-term 2,3,7,8-tetrachlorodibenzo-p-dioxin in the mouse," *Tumori*, 1987; 73:99-107.

¹⁹ Rao, M.S., Subbarao, V., Prasad, J.D., Scarpelli, D.G., "Carcinogenicity of 2,3,7,8-tetrachloro-dibenzo-p-dioxin in the Syrian golden hamster," *Carcinogenesis*, 1988;99:1677-

mutagenic and does not covalently bind to DNA or cause it to initiate repair synthesis but that it does behave as a tumor promoter at the cellular level.”²⁰ In varying doses and routes of administration, dioxin has produced malignant neoplasms at multiple anatomical sites in rats (lung, oropharyngeal, thyroid, adrenal glands, and liver),²¹ mice (thyroid, thymus, connective tissue, and liver),²² and hamsters (cutaneous).²³

Most significantly, where “both human and animal data exist, the sensitivity of humans to dioxin appears similar to that of experimental animals with regard to enzyme induction, chloracne, immunotoxicity, developmental toxicity, and cancer.”²⁴ The recent U.S. Air Force study went on to state that “[g]eneralized increases in cancer risk associated with dioxin exposure

1679.

²⁰ Poland, A., “Reflections on the mechanism of action of halogenated aromatic hydrocarbons,” in Poland, A., Kimbrough, R.D., eds., *Banbury Report 18: Biological Mechanisms of Dioxin Action*, Cold Spring Harbor, NY; Cold Spring Harbor Laboratory; 1984.

²¹ Kociba, R.J., Keyes, D.G., Beyer, J.E., et al., “Results of a two-year chronic toxicity and oncogenicity study of 2,3,7,8-tetrachlorodibenzo-p-dioxin in rats,” *Toxicol Appl Pharmacol*, 1978; 46:279-0303.

²² National Toxicology Program, *Bioassay of 2,3,7,8-Tetracholorodibenzo-p-Dioxin for Possible Carcinogenicity (Gavage Study)*, Technical Report Series No. 209, Research Triangle Park, NC: National Toxicology Program, 1982.

²³ Rao, M.S., Subbarao, V., Prasad, J.D., Scarpelli, D.G., “Carcinogenicity of 2,3,7,8-tetrachloro-dibenzo-p-dioxin in the Syrian golden hamster,” *Carcinogenesis*, 1988;99:1677-1679.

²⁴ Akhtar, F.Z., Garabrant, D.H., Ketchum, N.S., Michalek, J.E., “Cancer in US Air Force veterans of the Vietnam War,” *JOEM*, 2004;46:123-136, *citing* Birnbaum, L.S., “The mechanism of dioxin toxicity: relationship to risk assessment,” *Environ Health Perspect.*, 1994; 102(Suppl 9):157-194. See Exhibit “36” to Moore Affirmation.

are considered plausible because this pattern is consistent with animal experiments in which dioxin has been demonstrated to cause cancer at multiple anatomical sites.” *Id.*, at 124.

In an intensive study of the Ranch Hand personnel in the U.S. Air Force who conducted most of the spraying and had most contact with Agent Orange which was published in February, 2004, the authors concluded that the incidence of melanoma and prostate cancer were increased among white Ranch Hand veterans relative to national rates. It also concluded that among veterans who spent at most 2 years in Southeast Asia, the risk of cancer **at any site**, of prostate cancer and of melanoma was increased in the highest dioxin exposure category.²⁵ This updated study was in contrast to an earlier epidemiological study of U.S. Air Force veterans which found no statistically significant dermatological differences between those exposed to Agent Orange and an unexposed cohort group.²⁶

The findings of the 2004 U.S. Air Force study are even more significant when one considers the level of exposure to dioxin of the veterans studied. In the study, the highest level of exposure was still about “one tenth of the maximum predicted dose among workers in the National Institute for Occupational Safety and Health Study.”²⁷

The exposure of the plaintiffs in this case would be greater than even the most exposed categories ever studied in the United States or elsewhere, i.e., those exposed as civilians by

²⁵ Akhtar, *JOEM*, 2004;46:123-136.

²⁶ See, Air Force Health Study, *An Epidemiologic Investigation of Health Effects in Air Force Personnel Following Exposure to Herbicides*, XV-9 (Feb. 24, 1984) (Ranch Hand II Study--1984 Report).

²⁷ See, Fingerhut, M.A., Halperi, W.E., Marlow, D.A., et al., “Cancer mortality in workers exposed to 2,3,7,8-tetrachlorodibenxo-p-dioxin,” *N Eng J Med.*, 1991;3244:212-218.

occupation or as a consequence of industrial accidents, rather than the lower exposure rates of veterans who served in the Vietnam era.²⁸ A combined cohort study of workers exposed to phenoxy herbicides, chlorophenols and dioxin found an increase in the risk of mortality due to cancers of all types in exposed workers.²⁹

In sharp contrast to the veterans whose exposures to dioxin were minimal, the Vietnamese plaintiffs herein have levels and lengths of exposure that lasted for many years and included not just direct exposure, but through contamination of the water and food supply as well. As this Court observed twenty years ago, “[w]e are not dealing here (in the veterans cases) with exposure of workers in a factory or laboratory to dioxin in concentrated amounts where the probative force of the evidence of causality may be substantial.” 597 F.Supp at 783. Indeed, this litigation brought by the Vietnamese “presents quite a different picture” because in this case the plaintiffs, unlike the veterans, were subjected to “long term repeated exposure to a highly toxic substance.” *Id.* Or, to paraphrase this Court’s previous opinion approving the settlement, it is obvious that “Air Force personnel who generally have clean clothes and showers available at the end of their missions are in a far different situation from . . . [a Vietnamese national, soldier or civilian] . . . in the jungle who may be drinking contaminated water and living under primitive conditions in sprayed areas.” *Id.*, at 788.

²⁸ Akhtar, *JOEM*, 2004;46:131.

²⁹ *Id.*, citing Kogevinas, M., Becher, H., Benn, T., et al., “Cancer mortality in workers exposed to phenoxy herbicides, chlorophenols, and dioxins. An expanded and updated international cohort study,” *Am J Epidemiol.* 1997;145:1061-1075.

Notwithstanding the skepticism shown in some quarters to the proposition that exposure to dioxin in Agent Orange was responsible for numerous, catastrophic diseases and medical problems, multiple health studies have been conducted which have concluded that a link exists between certain cancerous diseases, such as non-Hodgkins's lymphoma and soft-tissue sarcomas, and exposure to the chemical components found in Agent Orange. For example, the Hardell study demonstrated a statistically significant correlation between exposure to pesticides containing dioxin and the development of soft-tissue sarcomas.³⁰ In 1974, Axelson and Sundell reported a two-fold increase of cancer in a cohort study of Swedish railway workers exposed to a variety of herbicides containing dioxin contaminants.³¹ In 1977, the International Agency for Research on Cancer (IARC) reported numerous anomalies and increased mortality rates in animals and humans exposed to 2,4-D or 2,4,5-T. *Zumwalt Report*, p. 9, n 18. In 1978, the Environmental Protection Agency issued an emergency suspension of the spraying of 2,4,5-T in national forests after finding "a statistically significant increase in the frequency of miscarriages" among women living near forests sprayed with 2,4,5-T.³² In 1990 a study conducted of Canadian farmers exposed to herbicides containing 2,4-D confirmed an increased risk of developing non-

³⁰ Hardell, L., and Sandstrom, A., "Case Control Study: Soft Tissue Sarcomas and Exposure to Phenoxyacetic Acids or Chlorophenols," 39 *Brit J. Cancer*, 711-717 (1979).

³¹ Axelson and Sundell, "Herbicide Exposure, Mortality and Tumor Incidence: An Epidemiological Investigation of Swedish Railroad Workers," 11 *Work Env't Health* 21-28 (1974).

³² June 1979 *Congressional Hearings before House Commerce Committee: Subcommittee on Oversight and Investigation*, quoted in "human Disease Linked to Dioxin: Congress Calls for 2,4,5-T Bar After Dramatic Herbicide Hearings," 28 *Bioscience* 454 (August, 1979).

Hodgkins's lymphoma.³³ These and other scientific studies are collected and summarized in Admiral Zumwalt's Report to the Department of Veterans Affairs. *Zumwalt Report*, at pp. 8-11, 39-46.³⁴

Both the EPA and IARC have concluded that dioxin is a "probable human carcinogen." *Zumwalt Report*, at p. 44. The Report of the Agent Orange Scientific Task Force of the American Legion, Vietnam Veterans of America and the National Veterans Legal Services Project, after reviewing the scientific literature related to the potential human health effects associated with exposure to dioxins, concluded that "**it is at least as likely as not** that exposure to Agent Orange is linked to the following diseases: non-Hodgkins lymphoma, soft tissue sarcoma, skin disorders/chloracne, subclinical hepatotoxic effects, porphyria cutanea tarda, reproductive and developmental effects, neurological effects and Hodgkin's disease." *Zumwalt Report*, at p. 45-46.

³³ See Blair, "Herbicides and Non-Hodgkin's Lymphoma: New Evidence From a Study of Saskatchewan Farmers," 82 *Journal of the National Cancer Institute* 575-582 (1990)

³⁴ See also Zack and Suskind, "The Mortality Experience of Workers Exposed to TCDD in a Trichlorophenol Process Accident," 22 *Journal of Medicine*, 11-14 (1980)(exposure of industrial workers to dioxin compounds resulted in excessive deaths from neoplasms of the lymphatic and hematopoietic tissues.); Executive Summary, The U.S. Interagency Workgroup to Study the Long-Term Effects of Phenoxy Herbicides and Contaminants (September 22, 1980) (correlation between exposure to phenoxy acid herbicides and an increased risk of developing soft-tissue tumors or malignant lymphomas);

Several epidemiological studies conducted in Vietnam by Vietnamese scientists have confirmed the incidence of increased birth defects among civilian populations exposed to Agent Orange.³⁵

To be fair, there remain many who are skeptical about a connection between exposure to dioxin and severe medical problems, although we can surely count the President-elect of the Ukraine, Viktor A. Yushchenko, as someone who has no such skepticism.³⁶ However, as Zumwalt has persuasively argued, much of the research which has either been inconclusive or negative on the connection between dioxin and serious medical problems is questionable and perhaps a reflection of the government's and the defendants' continued refusal to admit the truth and accept responsibility for the harm caused by spraying Vietnam with dioxin.³⁷ Zumwalt also

³⁵ See, e.g., Phoung, et al., "An Estimate of Reproductive Abnormalities in Woman Inhabiting Herbicide Sprayed and Non-herbicide Sprayed Areas in the South of Vietnam," 152-1981, 18 *Chemosphere* 843-846 (1989) (significant statistical difference between hydatidiform mole and congenital malformations between populations potentially exposed and not exposed to TCDD); Phoung, et al., "An Estimate of Differences Among Women Giving Birth to Deformed Babies and Among Those with Hydatidiform Mole Seen at the OB-GYN Hospital of Ho Chi Minh City in the South of Vietnam," 18 *Chemosphere* 801-803 (1989) (statistically significant connection between frequency of the occurrence of congenital abnormalities and of hydatidiform moles and a history of phenoxy herbicide exposure); Huong, et al., "An Estimate of the Incidence of Birth Defects, Hydatidiform Mole and Fetal Death in Utero Between 1952 and 1985 at the OB-GYN Hospital of Ho Chi Minh City, Republic of Vietnam," 18 *Chemosphere* 805-810 (1989) (sharp increase in the rate of fetal death in utero, hydatidiform mole (with or without choriocarcinoma) and congenital malformations from the pre 1965-1975 period, suggesting possible association to phenoxyherbicide exposure).

³⁶ See, "Liberal Leader from Ukraine was Poisoned," *New York Times*, December 11, 2004. "Pol was definitely poisoned, docs say," *New York Daily News*, December 12, 2004. See Exhibits "37" and "38" to Moore Affirmation.

³⁷ See, *Zumwalt Report*, at pp. 18-22. Zumwalt takes to task the work of the Veterans' Advisory Committee on Environmental Hazards which consistently recommended against recognizing connections between exposure to dioxin and a specific disease. In fact, the review of

details the extensive political interference that has taken place in government studies associated with Agent Orange, including the Air Force Ranch Hand study. *Zumwalt Report*, at pp. 31-39.³⁸

More importantly, the same pattern of deception and fraud that has characterized the government sponsored studies on the connection between dioxin and disease, has been replicated by the defendants' own studies purporting to show no evidence of a connection between dioxin exposure and disease. One such glaring example is the study published by two Monsanto employees, Zack and Gaffey, who compared the cancer death rate amongst the Nitro workers who were exposed to dioxin in 1949 with the cancer death rate of unexposed workers and concluded that the rate was the same.³⁹ However, Zack and Gaffey deliberately and knowingly omitted 5 deaths from the exposed group and took 4 workers who had been exposed and put these workers in the unexposed group, which had the effect of decreasing the death rate in the exposed group and increasing the death rate in the unexposed group. The exposed group, in fact, had 18 cancer deaths instead of the 9 reported deaths, with the result that the death rate in the

the work of the committee found "overt bias" in the Committee's evaluation of certain studies. *Id.*, at p. 22. He also cites to the work of Dr. Jeanne Hager Stellman, PhD and Steven D. Stellman, PhD whose "detailed annotated bibliography and assessment of numerous cancer studies relevant to herbicide exposure presents a **stunning indictment** of the Advisory Committee's scientific interpretation and policy judgments regarding the link between Agent Orange and Vietnam Veterans." *Id.*, at p. 20. (Emphasis added).

³⁸ In March, 1990, Senator Thomas Daschle disclosed evidence of political interference in the Ranch Hand study, which include the altering of the study's conclusion to purportedly establish "irrefutable proof" that Agent Orange was not a health problem. *Id.*, at p. 32.

³⁹ See Zack and Gaffey, "A Mortality Study of Workers Employed at the Monsanto Company Plant in Nitro, WV, *Environmental Risks of Chlorinated Dioxins and Related Compounds* (1983) pp. 575-591. See also, Friedemann Rohleder, "Dioxins and Cancer Mortality Reanalysis of the BASF Cohort," presented at the 9th International Symposium on Chlorinated Dioxins and Related Compounds, Toronto, Canada (Sept. 17-22, 1989).

exposed group was 65% higher than reported. When the 20 supervisory personnel were removed from the exposed group, thereby negating any dilution effect, the reanalysis revealed statistically significant increases in cancers of the respiratory organs (lungs, trachea, etc.) and cancers of the digestive tract. *Zumwalt Report*, at p. 36.⁴⁰

Recent evidence also reveals that defendant Dow Chemical was aware as early as 1964 that TCDD was a byproduct of the manufacturing process of Agent Orange. According to Dow's then medical director, Dr. Benjamin Holder, extreme exposure to dioxins could result in "general organ toxicity" as well as "psychopathological" and "other systemic" problems. In fact, as an expert toxicologist who testified in *Peteet v. Dow Chemical Co.*, 868 F.2d 1428 (5th Cir. 1989), *cert denied*, 110 S.Ct. 328 (1989), Dr. Daniel Teitelbaum, has stated, "the manufacturers of the chlorophenoxy herbicides have known for many years about the adverse effects of these materials on humans who were exposed to them." *Zumwalt Report*, at p. 39.⁴¹

In its opinion approving the settlement of the veterans' cases, this Court, even despite its skepticism about the evidence linking exposure to an increased incidence of serious medical problems, concluded that, without hearing the evidence at a trial, it could not be said that the plaintiffs could not show evidence of causality. *Id.*, at 786.

⁴⁰ Similar studies have also been shown to be fraudulent. *See, e.g.*, R.R. Suskind and V.S. Hertzberg, "Human Health Effects of 2,4,5-T and its Toxic Contaminants," *Journal of the American Medical Association*, Vol 251, No. 18 (1984), pp. 2372-2380 (Similar study of the 1949 Nitro accident which showed exposed group undercounted and unexposed group overcounted);

⁴¹ Teitelbaum also noted the fact that "in review of Dow's 2,4-D documentation I found that there are significant concentrations of potentially carcinogenic materials present in 2,4-D which have never been made known to the EPA, FDA, or to any other agency." *Zumwalt Report*, at p. 39, n 75.

The Agent Orange Act of 1991, passed by the U.S. Congress, directed the Secretary of Veterans Affairs to request that the Institute of Medicine of National Academy of Sciences (“IOM”) conduct a comprehensive review and evaluation of available scientific and medical information regarding the health effects of exposure to the herbicides used in Vietnam and their components, including dioxin. In 1992 the IOM signed an agreement with the Department of Veterans’ Affairs to perform the study. First Amended Complaint, ¶237.

The IOM published the results of one such study in 1994 and has periodically updated the study thereafter. The published studies found an direct association between herbicide exposure and many different types of diseases and defects. *Id.*, ¶238.

The IOM further recommended that the Department of Veterans Affairs develop historical reconstruction methods for characterizing exposure to herbicides in Vietnam. Pursuant to that recommendation a team of scientists at Columbia University led by Jeanne Mager Stellman prepared a study and report, published in the scientific journal *Nature* on April 17, 2003. This report found that “Large numbers of Vietnamese civilians appear to have been directly exposed to herbicidal agents, some of which were sprayed at levels at least an order of magnitude greater than for similar U.S. domestic purposes,” and estimated that two to four million Vietnamese people were affected by herbicide exposure. *Id.*, ¶239.

In 2002, a study conducted by a team of Vietnamese and Canadian scientists led by Wayne Dwernychuk of Hatfield Consultants Ltd., and published in the scientific journal *Chemosphere* (*Chemosphere* 47 (2002) 117-137) reported that the Aluoi Valley of central Vietnam had sustained extensive environmental contamination with dioxin, and concluded that the contamination resulted from the spraying, storage and transfer of the herbicides used in the

war with the United States, and that “the Aluoi Valley is a microcosm of southern Vietnam, where numerous reservoirs of (dioxin) exist in the soil of former military installations south of the former demilitarized zone.” In particular, the study found high dioxin levels in samples of soil, fish and animal fat, human blood and human breast milk. *Id.*, ¶240.

In 2003, a study by a team of researchers, led by Arnold Schecter, a professor of environmental sciences at the University of Texas, conducted a study which sought to determine the extent of dioxin contamination in the environment and food chain in Bien Hoa City in southern Vietnam, near the site of a former U.S. air base. The results of this study, published in the August 2003 issue of the *Journal of Occupational and Environmental Medicine*, found evidence of a high rate of dioxin contamination in the environment and in the food chain in the area studied. The study specifically found that dioxin continues to poison people in exposed areas through the intake of contaminated food. *Id.*, ¶241.

Since 1996, the Institute of Medicine for the National Academies has published reports, updated every two years, called “Veterans and Agent Orange” to study the health effects of Agent Orange and dioxin. The most recent, the 2002 update, indicates that there is sufficient evidence for an association between Agent Orange contact and the following: Chronic lymphocytic leukemia, Soft-tissue sarcoma, Non-Hodgkin’s lymphoma, Hodgkin’s disease, and chloracne. The report also states that there is limited or suggestive evidence that Agent Orange can cause respiratory cancer, prostate cancer, multiple myeloma, acute and subacute transient peripheral neuropathy, porphyria cutanea tarda, type 2 diabetes, and spina bifida in children of those exposed. Institute of Medicine, *Veterans and Agent Orange, Update 2002*, Washington, D.C., National Academy Press, 2003.

Thomas Whiteside cites the Bionetics report and reaction to it in his 1970 *New Yorker* article. According to DuBridge, the President's science advisor, in 1969 or 1970, the Bionetics study demonstrated that "offspring of mice and rats given relatively large oral doses of the herbicide during the early stages of pregnancy showed a higher than expected number of deformities." Whiteside points out, however, that this was a gross understatement. In fact, the Bionetics report had stated that 2,4,5-T had produced "sufficiently prominent effects of seriously hazardous nature." (See Exhibit "3" to Moore Affirmation, at p. 16.) He also notes that this was a larger group of animals than is commonly used to determine toxicity of substances exposed to the general population, suggesting that it was, indeed, a reliable study. Whiteside points out that the studies on rats are done specifically to determine any danger posed to humans, not rats, and that the fact that effects were produced in both mice and rats is highly significant in predicting effects on humans. In addition, rats tend to be very resistant to teratogenicity. For example, thalidomide, the drug that produced highly teratogenic effects in humans in the 1950s, had no discernable effect on rats. *Id.*, at 27-28.

Whiteside concludes that if indeed dioxin was responsible for the birth defects seen in rats and mice in the Bionetics study, then the relatively small quantities of dioxin present within that substance indicate that dioxin is "at least ten thousand times more teratogenically active in rats than thalidomide was found to be in rabbits." (Whiteside, See Exxhibit " "(whiteside) to Moore Affirmation, at p. 38.)

G. The International Controversy Over the USG's Use of Agent Orange

From the inception of its use, opposition to the USG's chemical warfare program sprang up from many different quarters. Several influential people in the U.S. State Department, such as

Roger Hilsman and W. Averell Harriman, were opposed to the spraying from the outset, citing its effects on the civilian population of Vietnam and the risk that by engaging in chemical warfare, the U.S. would be perceived as a barbaric imperialist . First Amended Complaint, ¶66.

In 1963 a series of articles were written by journalist Richard Dudman were published in the St. Louis Post-Dispatch and other newspapers criticizing the chemical warfare program, including the spraying of poison to destroy rice fields, as constituting “dirty-war tactics.” These articles prompted Congressman Robert W. Kastenmeier of Wisconsin to write to President Kennedy to urge him to renounce the use of herbicides in Vietnam, calling them chemical weapons. *Id.*, ¶67.

In 1964, an article published in the Washington Post described the accidental spraying of a friendly village in southern Vietnam which destroyed the rice and pineapples upon which people depended for their livelihoods. The following day, the Washington Post editorial called for an end to the use of chemical warfare in Vietnam, because the chemical weapons were too unselective and posed a risk to the civilian population. *Id.*, ¶68.

As early as 1964, the Federation of American Scientists had expressed opposition to the government’s chemical warfare program in Vietnam on the grounds that the United States was capitalizing on the war as an opportunity to experiment and engage in biological and chemical warfare. *Id.*, ¶69.

In January 1966, a group of about 30 Boston scientists protested crop destruction as a barbarous and indiscriminate attack on both combatants and noncombatants. *Id.*, ¶70.

In 1967, a petition signed by more than 5,000 scientists, including 17 Nobel laureates and 129 members of the National Academy of Sciences, urging President Johnson to stop using

antipersonnel and anti-crop chemicals in Vietnam, was received by the President's Science Advisor and gained wide publicity. *Id.*, ¶71.

Also in 1967, the RAND Corporation issued two reports criticizing the chemical warfare program because it was eliminating the food supply upon which Vietnamese farmers depended. *Id.*, ¶72.

Also in 1967, the American Association for the Advancement of Science urged the U.S. Department of Defense to study the long-range ecological consequences of the chemical warfare program. Although the Department of Defense commissioned the Midwest Research Institute to study Agent Orange and the other chemicals, based upon a survey of existing literature which opined that toxicity to animals and people should not be a factor of real concern, the National Academy of Sciences panel that reviewed this report concluded that there was insufficient existing research on the chemical warfare program to draw firm conclusions. *Id.*, ¶73.

In 1965 the National Cancer Institute contracted with the Bionetics Research Laboratory to study the toxicity of certain herbicides and pesticides. In 1966, a preliminary report indicated that 2,4,5-T and 2,4-D could cause malformed offspring and stillbirths in mice. These findings were not released publicly until 1969, when they were inadvertently leaked to (Ralph) "Nader's Raiders." *Id.*, ¶74. The final report in 1969 indicated that 2,4,5-T, a major component of Agent Orange and other herbicides used in Vietnam, could cause malformed offspring and stillbirths in mice when administered in high dosage to the mothers. 597 F. Supp. at 776. The Bionetics Report concluded that 2-4,5-T showed a "significant potential to increase birth defects." *Zumwalt Report*, p. 6.

In October, 1969, the National Institute of Health confirmed that 2,4,5-T could cause malformations and stillbirths in mice, thereby prompting the Department of Defense to announce a partial curtailment of its Agent Orange spraying.⁴²

The USG's chemical warfare program was considered by most of the international community to be a violation of international law and a war crime. As early as 1966, resolutions were introduced at the United Nations charging the United States with violations of the 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare. First Amended Complaint, ¶75.

In 1969, the United Nations General Assembly approved Resolution No. 2603-A, restating that the 1925 Geneva Protocol prohibited the use of chemical or biological agents against plants in international armed conflicts. The resolution specifically declared as a violation of that treaty, the use of any chemical agents of warfare, whether gaseous, liquid or solid, which might be employed because of their direct toxic effects on man, animals or plants. The United States did not accept this interpretation and voted against the resolution. The resolution was adopted, however, on December 16, 1969, by a vote of 80 to 3 with 36 abstentions. *Id.*, ¶76.

On April 15, 1970, the Secretaries of Health, Education and Welfare, Agriculture and the Interior, stirred by the publication of studies that indicated 2,4,5-T was a teratogen (i.e., caused birth defects), issued a joint statement suspending domestic use of herbicides containing 2,4,5-T around lakes, ponds, ditch banks, recreation areas and homes and crops intended for human

⁴² See Bruce Meyers, "Soldier of Orange: The Administrative, Diplomatic, Legislative and Litigatory Impact of Herbicide Agent Orange in South Vietnam," 8 *B.C. Env't Aff. L. Rev.*, 159, 167 (1979).

consumption. W. Buckingham, *Operation Ranch Hand*, *supra*, at 166; Meyers, at 167; *see also* *Dow Chemical Co. v. Ruckelshaus*, 477 F.2d 1317, 1318-19 (8th Cir.1973); *Citizens Against Toxic Sprays, Inc. v. Bergland*, 428 F.Supp. 908, 914 (D.Or.1977); *United States v. Vertac Chemical Corp.*, 489 F.Supp. 870, 881 (E.D.Ark.1980). That same day, the Department of Defense suspended military use of 2,4,5-T, including Agent Orange, "pending a more thorough evaluation of the situation." Buckingham, at 166; 597 F. Supp. at 777. Thereafter, herbicide spraying for defoliation continued for a short while, using Agent White. Crop destruction, utilizing Agents White and Blue, continued throughout 1970. Buckingham, at 166. In January 1971, the last Ranch Hand mission took place. *Id.* *See also*, First Amended Complaint, ¶ 77.

Overall, between 17 and 19 million gallons of Agents Orange, White and Blue were procured by the United States and disseminated in Vietnam between January 1965 and February 1971. 597 F. Supp. at 777.⁴³

A study by the National Academy of Sciences concluded that chemical weapons had been sprayed on 10.3% of inland forests, 36.1% of mangroves and 3% of cultivated areas in Vietnam. *Id.*, at I-11. Between 8 and 10 percent of the total land area in South Vietnam was sprayed. *Id.*

After cessation of chemical warfare in Vietnam by the USG in February 1971, vast quantities of Agent Orange remained. *Id.*; 597 F. Supp at 777. Defendants herein continued to supply the RVN with additional quantities of Agent Orange, and the RVN government continued

⁴³ *See also* A.L. Young, J.A. Calcagni, C.E. Thalken & J.W. Tremblay, *The Toxicology, Environmental Fate, and Human Risk of Herbicide Orange and its Associated Dioxin*, *supra*, I-10.

to pursue a chemical warfare program until the fall of the RVN government in 1975. First Amended Complaint, ¶¶ 78-79.

H. Harm Caused to the Plaintiffs

The Plaintiffs in this action include several individuals residing in both the North and South of Vietnam who in one way or another have been harmed by their exposure to Agent Orange and other chemical weapons manufactured and sold by the defendants. An organization, the Vietnam Association for Victims of Agent Orange/Dioxin, is also a plaintiff in this case.

Plaintiff THE VIETNAM ASSOCIATION FOR VICTIMS OF AGENT ORANGE/DIOXIN is a Vietnamese not-for-profit, non-governmental organization whose membership consists of victims of exposure to herbicides used during the war with the United States as well as donors, who are honorary members. The purpose of the organization is to represent and protect the interests of Vietnamese victims of the chemical weapons used in the war with the United States, and to raise funds for treatment and care of victims and mitigation of the harmful effects of the environmental contamination. The organization is run by an executive board consisting of Vietnamese victims, attorneys, medical and scientific researchers, as well as prominent people from other disciplines. First Amended Complaint, ¶5.

Plaintiff PHAN THI PHI PHI is a Vietnamese national originally from the City of Hue in the central part of Vietnam. *Id.*, ¶118. Plaintiff Phi Phi is a medical doctor. *Id.* From April 1966 through July 1971, Dr. Phi Phi served as Director of Hospital No. 1, a mobile hospital with different units which moved to various locations in Quang Nam province and Quang Ngai province in southern Vietnam. The hospital units were often located near the Ho Chi Minh trail and near various rivers and streams in the said provinces. Dr. Phi Phi often had to travel along

the Ho Chi Minh trail to visit the different hospital units. *Id.*, ¶119. Dr. Phi Phi supervised the treatment and care of civilian patients. The hospital also occasionally treated soldiers with acute conditions. *Id.*, ¶120.

The hospital staff, including Dr. Phi Phi, and the patients receiving treatment at the hospital, relied upon food they cultivated or found in the nearby valleys for daily sustenance. They drank water drawn from streams near the hospital units or near the Ho Chi Minh trail. Among the foods they cultivated and ate were manioc, rice, corn and other wild fruits and vegetables. They also bought foods like poultry, pigs and other animals and vegetables from local villagers. *Id.*, ¶121

Quang Nam and Quang Ngai provinces, especially near the Ho Chi Minh trail, were two of the areas heavily sprayed with chemical weapons manufactured by one, some or all of the defendants pursuant to operations Trail Dust and Ranch Hand both before and during the time of Dr. Phi Phi's residence there. As a result of these operations, the valleys adjacent to the Ho Chi Minh trail were also heavily exposed to the poison contained in the chemical weapons, including the valleys in which Dr. Phi Phi and her colleagues cultivated and collected food and water. *Id.*, ¶122

As a result of exposure to the herbicides, the trees and the fruit and vegetable plants in those valleys were often leafless, and had ceased to bear fruit. As a result, Dr. Phi Phi and her colleagues were forced to harvest and eat the roots of those plants that were edible, such as potato and manioc, not knowing that those roots, as well as the water from the streams that that they relied upon for sustenance, had become poisoned by the herbicides. During the entire period

she served as Director of Hospital No. 1, Dr. Phi Phi ate food and drank water exposed to the herbicides. *Id.*, ¶123

Before the war and her exposure to the defendants' chemical weapons, Dr. Phi Phi had given birth to a healthy daughter. During the war, Dr. Phi Phi became pregnant three times. Each of those three pregnancies ended with miscarriages in the first trimester of her pregnancy. *Id.*, ¶124-125. In 1973, Dr. Phi Phi became pregnant again. Although the pregnancy proceeded normally through the first trimester, on or about July 1973, she again suffered a miscarriage which required hospitalization and termination of the pregnancy. *Id.*, ¶126

Dr. Phi Phi's repeated miscarriages were caused by her exposure, through the ingestion of food and water drawn from the areas sprayed, to the dioxin contained in the chemical weapons manufactured by one, some, or all of the defendants. *Id.*, ¶127

Plaintiff NGUYEN VAN QUY is a former soldier in the army of the Democratic Republic of Vietnam, and he is a plaintiff in this action, along with his two children, NGUYEN QUANG TRUNG and NGUYEN THI THUY NGA. His assignment was the repair of communications lines. From April 1972 to July 1972, Nguyen Van Quy's unit marched to southern Vietnam along the Ho Chi Minh trail. From July 1972 until September 1972 Nguyen Van Quy was stationed in Bo Ko. He was then transferred to Quang Ngai where he was stationed from September 1972 to April 1973. From April 1973 until the end of the war in 1975, he was stationed in Quang Nam, near the Ho Chi Minh trail. All of the foregoing provinces were situated in southern Vietnam. *Id.*, ¶128-129.

During the time of his service, Quy would regularly eat manioc, wild grass and other plants he found and he would regularly drink water from streams in areas that had been spayed

with herbicide manufactured by one, some or all of the defendants. He observed areas that had been sprayed with chemical weapons because the trees had no leaves, and when it rained, a very strong and foul odor emanated from the ground for a brief time. *Id.*, ¶130.

On or about August of 1972, one day when he was out collecting wild grass to eat, he came across a barrel which he thought contained oil. Oil was very useful at time for use in lamps. He pierced the barrel with a knife and white powdery substance came pouring out, with a very strong and foul odor. Upon information and belief, the white powdery substance was a chemical weapon manufactured by one, some or all of the defendants. *Id.*, ¶131.

During the entire time period that he was stationed in southern Vietnam, Nguyen Van Quy periodically had headaches and felt exhaustion, and his skin was often itchy and broke out in rashes. The skin irritation disappeared after he left Quang Ngai province in 1973, but the headaches and exhaustion continued and became worse over time. *Id.*, ¶132.

After the war, Nguyen Van Quy returned to his home in Hai Duong province, in northern Vietnam, where he rejoined his family on their farm. *Id.*, ¶133. In 1984, Nguyen Van Quy was married, and his wife became pregnant. Later that year, Mr. Quy moved to Vung Tao, in southern Vietnam, where he found work as a welder. *Id.*, ¶134. While Mr. Quy was working in Vung Tao, his pregnant wife had remained with his family in Hai Duong. The pregnancy ended in a stillbirth. The birth was premature and the fetus was deformed. *Id.*, ¶135. Because of the stillbirth and the deformed fetus, Mr. Quy's wife filed for, and obtained, a divorce from him. *Id.*, ¶136.

Mr. Quy continued to work as a welder in Vung Tao for approximately one year, but had to stop working because of worsening spells of weakness and exhaustion. *Id.*, ¶137.

In 1986, Mr. Quy moved back to his family's home in Hai Duong province, where he depended upon his family for financial support because he was too weak to work. *Id.*, ¶138.

In 1987, Mr. Quy was married again, and he moved to Hai Phong City, into the home of his second wife's family, upon whom he then depended for financial support. *Id.*, ¶139. His second wife soon became pregnant and in 1988, gave birth to their son, plaintiff Nguyen Quang Trung. *Id.*, ¶140. Plaintiff Nguyen Quang Trung was born with spinal, limb and developmental defects. His feet are enlarged and deformed. He is unable to coordinate his legs and arms. He has a congenital defect of the spine, which makes it difficult to support his weight. He is developmentally disabled. Nguyen Quang Trung is unable to stand, walk, or use his hands; he is unable care for himself or attend school or work. *Id.*, ¶141.

Shortly after Nguyen Quang Trung's birth, Mr. Quy's second wife became pregnant again, and in 1989 she gave birth to a daughter, Plaintiff Nguyen Thi Thuy Nga, who was born developmentally disabled and was also born deaf and dumb. As a result, Nguyen Thi Thuy Nga cannot attend school or work and she is not self-sufficient. *Id.*, ¶142.

Mr. Quy's spells of weakness and exhaustion worsened, and in September 2003, he went to Viet Tiep hospital in Hai Phong City to seek treatment, where he was diagnosed with stomach cancer and liver cancer. *Id.*, ¶143. On or about October 20, 2003, Mr. Quy had difficulty breathing and was taken by ambulance to a hospital in Hanoi for treatment. *Id.*, ¶144.

Mr. Quy has received treatment for cancer, including chemotherapy, which caused him to lose hair. He is now very weak and has difficulty breathing, and is often home-bound. Although Mr. Quy receives disability payments from the government, they are insubstantial and his wife supports their family by making and selling incense from their home. Mr. Quy and his in-laws

care for Nguyen Quang Trung and Nguyen Thi Thuy Nga at their home. Both of Mr. Quy's children are unable to care for themselves and require constant care and attention from Mr. Quy and his family. *Id.*, ¶145.

Mr. Quy's diseases and conditions and his children's birth defects and conditions were caused by his exposure to the dioxin contained in the defendants chemical weapons through his ingestion of food and water drawn from areas sprayed with the defendants' chemical weapons and his direct contact with these chemical weapons manufactured by one, some or all of the defendants. *Id.*, ¶146.

Plaintiff DUONG QUYNH HOA is a Vietnamese national and a physician residing in the City of Ho Chi Minh City (formerly Saigon) in southern Vietnam. *Id.*, ¶147. Plaintiff HUYNH TRUNG SON is her son.

In 1964, plaintiff Duong Quynh Hoa traveled often to the cities Bien Hoa and Song Be, which were heavily contaminated with chemical weapons manufactured by one, some or all of the defendants. *Id.*, ¶148.

From 1968-1976, plaintiff Dr. Hoa served as Minister of Health of the Provisional Government of the Republic of South Vietnam. During that time she resided in Tay Ninh province. *Id.*, ¶149. During her time in Tay Ninh, Dr. Hoa was told several times to cover her head with plastic bags because US aircraft were spraying chemicals. *Id.*, ¶150.

In May 1970, Dr. Hoa gave birth to a son, plaintiff Huynh Trung Son. Plaintiff Huynh Trung Son was born developmentally disabled and suffered from epileptic convulsions. *Id.*, ¶151. Plaintiff Huynh Trung Son died at the age of eight months, from a convulsion. *Id.*, ¶152.

In 1971, Dr. Hoa became pregnant, but suffered a miscarriage in July 1971, in her eighth week of pregnancy. *Id.*, ¶154. In late 1971, Dr. Hoa became pregnant again, but suffered a miscarriage in January 1972, in her sixth week of pregnancy. *Id.*, ¶155. After the death of her child and her two miscarriages, Dr. Hoa decided not to become pregnant again. *Id.*, ¶156.

After the end of the war, Dr. Hoa began to experience itchiness and rashes on her skin. *Id.*, ¶153.

In 1985, after bouts of weakness and fainting spells, Dr. Hoa was diagnosed with diabetes. *Id.*, ¶157. In 1998, after feeling a lump in her right breast, Dr. Hoa was diagnosed with breast cancer and underwent a mastectomy. *Id.*, ¶158. In 1999, Dr. Hoa was tested for dioxin, which revealed relatively high levels of the toxin in her blood. *Id.*, ¶159. Both plaintiff Duong Quynh Hoa's diseases and her son Huynh Trung Son's death were caused by Dr. Hoa's exposure to the chemical weapons manufactured by one, some or all of the defendants. *Id.* ¶160

Plaintiff HO KAN HAI is a Vietnamese national and sues in this action along with her son, NGUYEN VAN HOANG. Since 1972, plaintiff Ho Kan Hai has been a farmer residing in Aluoi (formerly Ashau) Valley in southern Vietnam, living in close proximity to the former US military air base in A So. Ms. Hai and her family's diet has consisted of local rice, vegetables, manioc, fish and poultry, among other foods. *Id.*, ¶161-162.

Ms. Hai has had four miscarriages during her time in A So, and two of her children have died young, one at the age of 16 days, one at the age of two years. She has also had surgery to remove ovarian tumors. *Id.*, ¶163.

One of her living children is plaintiff Nguyen Van Hoang. He was born on or about September 7, 1992. Hoang was born with severe physical and mental developmental disabilities and currently lives with his mother. *Id.*, ¶164.

Ms. Hai's miscarriages and ovarian tumors, and her son's developmental disabilities, were caused by their ingestion of food and water contaminated by the chemical weapons manufactured by one, some or all of the defendants. *Id.*, ¶165.

Plaintiff HO XUAN BAT was a Vietnamese national and a school teacher who was born in 1952 and lived in the Aluoi Valley in Southern Vietnam. *Id.*, ¶166. Plaintiff Ho Xuan Bat died on May 18, 2004. During the war with the U.S., plaintiff Bat was active with the NLF, and he observed the spraying of chemical weapons on several occasions. *Id.*, ¶166, 171.

In 1978, Mr. Bat was married to plaintiff HO THI LE, and they continued to live in the Aluoi Valley. Ms. Le cultivated rice and vegetables to provide the family with food and to sell in the local market. Their diet consisted mainly of local rice, manioc, wild vegetables, fish and poultry. *Id.*, ¶167.

In 1980, Ms. Le gave birth to the couple's first child. After their first child, Ms. Le became pregnant again, but this time she suffered a miscarriage one month into the pregnancy. *Id.*, ¶168 In 1982, Ms. Le's first child died from a nose infection. That same year, Ms. Le gave birth to the couple's second child, but the child died at 16 days of age, for reasons not known to Ms. Le. *Id.*, ¶169.

Mr. Bat's health began to deteriorate, and he began to experience fatigue, frequent headaches, coughing with blood, chest pain, loss of appetite, loss of weight and fever, among

other symptoms. On or about October 2002 he sought treatment at a local clinic without success. *Id.*, ¶170.

On or about June 2003, Mr. Bat sought treatment again at a hospital in Hue, where he was diagnosed with cancer of the right lung. His health steadily declined, and he died from lung cancer on May 18, 2004. *Id.*, ¶171.

Ms. Le's miscarriage and the deaths of two of her children, and her husband's death from lung cancer were caused by their ingestion of food and water contaminated by chemical weapons manufactured by one, some or all of the defendants. *Id.*, ¶172.

Plaintiff NGUYEN MUOI is a Vietnamese national and was born on or about October 8, 1983 in the city of Hue. His father is Nguyen Dinh Thanh and his mother is Le Thi Gam, and they were married in 1969. *Id.*, ¶173. Mr. Thanh was a farmer who served with the RVN army during the war with the U.S. From 1970 through 1975, he was a cook in an RVN army unit stationed in the Aluoi Valley. During that time, he ate wild vegetables and drank stream water. *Id.*, ¶174.

Muoi began periodically experiencing severe pain in his mid-section and back, making it extremely difficult for him to move. Sometimes the pain was so severe, he felt that death was imminent. In 1999, he realized that he had a serious health problem and sought treatment unsuccessfully. *Id.*, ¶175.

On or about July 18, 2003, Muoi was formally diagnosed with spina bifida. Muoi has had to stop his education in the field of architecture and construction and cannot work because of the pain associated with his condition. *Id.*, ¶176.

Muoi's spina bifida was caused by his father's exposure to chemical weapons and dioxin and ingestion of food and water contaminated by chemical weapons manufactured by one, some or all of the defendants. *Id.*, ¶177.

Plaintiff DANG HONG NHUT is a Vietnamese national originally from Tien Giang, in southern Vietnam. Before the war with the U.S., she lived in Saigon. *Id.*, ¶178. In 1959 Ms. Nhut was married, and in 1960, she gave birth to a healthy son. *Id.*, ¶179. In 1965 Ms. Nhut traveled to Cu Chi to visit her husband, and spent approximately one month there. Cu Chi was an area heavily sprayed with chemical weapons, and Ms. Nhut often noticed a fog or mist and a strong odor in the air, and a white substance on plant leaves. *Id.*, ¶180.

During her time in Cu Chi, Ms. Nhut ate wild vegetables, poultry and fish, and drank stream water. She experienced skin rashes at that time. Ms. Nhut returned to Saigon in 1965. *Id.*, ¶181.

In 1966, Ms. Nhut was arrested by the RVN regime and held in prison in Bien Hoa from 1966 through 1972. During her time in prison, she ate dried fish and other food she could not identify. After her release from prison, she lived in Tay Ninh, Binh Duong and Cu Chi. After the war, she found work as a tailor at a small shop. *Id.*, ¶182.

In 1974, Ms. Nhut became pregnant again. She suffered a miscarriage two months into the pregnancy. *Id.*, ¶183. In 1975, Ms. Nhut became pregnant a third time. Again, she suffered a miscarriage two months into the pregnancy. *Id.*, ¶184. In 1977, Ms. Nhut became pregnant a fourth time. An ultrasound examination performed at Tu Du hospital in Saigon five months into the pregnancy determined that the fetus had spina bifida and other deformities. The pregnancy was terminated, and the fetus was removed and kept at the hospital. *Id.*, ¶185.

In 1980, Ms. Nhut became pregnant a fifth time, and again suffered a miscarriage two months into the pregnancy. At that time, her doctor advised her not to become pregnant again, because of the health risk involved. *Id.*, ¶186.

In 2002, a tumor was discovered in Ms. Nhut's intestine, and she had surgery at Nguyen Trai hospital to remove it. *Id.*, ¶187. In May 2003, Ms. Nhut had her thyroid surgically removed because it was not functioning. *Id.*, ¶188.

Ms. Nhut's miscarriages and her other health problems were caused by her exposure to the chemical weapons and her ingestion of food and water contaminated by chemical weapons manufactured by one, some or all of the defendants. *Id.*, ¶189.

Plaintiffs NGUYEN THI THU, NGUYEN SON LINH and NGUYEN SON TRU are Vietnamese nationals residing in the city of Hue. Ms. Thu is the mother of Linh and Tru, who are brothers. Linh was born on January 9, 1987 and Tru was born on June 12, 1990. *Id.*, ¶190.

Ms. Thu is originally from Hue and served as a volunteer repairing roads in Nam Dong in southern Vietnam from 1973-1975. Nam Dong was heavily sprayed with herbicides, and Ms. Thu ate wild vegetables, poultry and fish and drank stream water there. *Id.*, ¶191. Ms. Thu's husband, and the father of her children, is Nguyen Hai Son. Mr. Son was in a transport unit of the DRVN army, stationed in Quang Tri from 1970-1975. Quang Tri was heavily sprayed with chemical weapons and Mr. Son ate wild vegetables and fish and drank stream water there. *Id.*, ¶192.

Ms. Thu has had five pregnancies, one of which resulted in a miscarriage. She gave birth to four children, two of whom have been completely paralyzed since birth. Plaintiffs Linh and

Tru were born with congenital birth defects and are paralyzed from the waist down. They are confined to wheelchairs. *Id.*, ¶193.

Ms. Thu's miscarriage and her sons' birth defects were caused by her and her husband's ingestion of food and water contaminated by chemical weapons manufactured by one, some or all of the defendants. *Id.*, ¶194.

Plaintiff LE THI VINH is a Vietnamese national and a resident of the city of Hue. She is originally from Quang Bing in northern Vietnam. *Id.*, ¶202. From 1969-1973 Ms. Vinh served as a volunteer repairing roads in Quang Tri in southern Vietnam, which was heavily sprayed with herbicides pursuant to Operation Trail Dust and Operation Ranch Hand. At the time, Ms. Vinh often saw mist in the air, ate wild vegetables and drank stream water. *Id.*, ¶203.

After the war, Ms. Vinh found work at a child care center in Quang Tri. She began to experience fatigue, joint pain and swollen glands, and she sought treatment unsuccessfully for her condition. She also suffered two miscarriages during this time. Her condition deteriorated to the point that she had to stop working in 1996. *Id.*, ¶204.

In 2002 she sought treatment at Hue Central Hospital, where she was diagnosed with cancer of the right lung. Although she had several tumors removed, the lung cancer still persists, and she suffers from chest pain, breathing difficulty and fluid in the lungs. She is in constant pain and cannot work. *Id.*, ¶205.

Ms. Vinh's cancer and miscarriages were caused by her exposure to herbicides and dioxin and her ingestion of food and water contaminated by chemical weapons manufactured by one, some or all of the defendants. *Id.*, ¶206.

Plaintiffs NGUYEN THI NHAM and NGUYEN MINH CHAU are Vietnamese nationals and residents of the city of Bien Hoa in southern Vietnam. Ms. Nham is the mother of Chau, who was born in 1981. Ms. Nham and her husband, Nguyen Dinh Hanh, both retired school teachers, moved to Bien Hoa in 1989 from Tan Hiep. *Id.*, ¶207. Bien Hoa has been heavily contaminated with dioxin because it was the site of a U.S. military air base where Agent Orange and other chemicals were sprayed, stored and spilled. *Id.*, ¶208.

During their time in Bien Hoa, Ms. Nham and her family have regularly cultivated vegetables and poultry for their own consumption and have regularly eaten fish and rice purchased from the local market. *Id.*, ¶208.

In 2003, Ms. Nham began to experience frequent headaches and fatigue. In November, 2003, she sought treatment at Dong Nai Multi-Department Hospital, where she was diagnosed with diabetes. *Id.*, ¶209.

Ms. Nham has had three pregnancies. Her first child was born premature and died after one month. Her second child was born with defective intestines, which prevent normal digestion, and died after ten days. Her living son Chua, born in 1981, after the first two pregnancies, suffers from chloracne. *Id.*, ¶210. In 1999, both Ms. Nham and Chau were tested for dioxin, which revealed abnormally high levels of the toxin in their blood. *Id.*, ¶211.

Both plaintiffs Nguyen Thi Nham and Nguyen Minh Chau's diseases and the deaths of Ms. Nham's other children were caused by their ingestion of food and water contaminated by chemical weapons manufactured by one, some or all of the defendants. *Id.*, ¶212.

Plaintiff NGUYEN THI THOI is a Vietnamese national, originally from Hai Duong in northern Vietnam. In 1954, she moved to Dong Nai in southern Vietnam. In 1966, she married and moved with her husband to Bien Hoa city in southern Vietnam. *Id.*, ¶213.

Bien Hoa has been heavily contaminated with dioxin because it was the site of a U.S. military air base where Agent Orange and other chemicals were sprayed, stored and spilled. *Id.*, ¶214. During their time in Bien Hoa, Ms. Thoi and her family regularly cultivated and ate local vegetables, poultry, fish and rice. *Id.*

In 1967, Ms. Thoi gave birth to her first child, but her child died at three years of age due to high fever and convulsions. Ms. Thoi subsequently suffered a miscarriage. She also suffers from frequent headaches, fatigue and joint pain. *Id.*, ¶215. In 2000, Ms. Thoi was tested for dioxin, which revealed abnormally high levels of the toxin in her blood. *Id.*, ¶216.

Plaintiff Nguyen Thi Thoi's condition, her miscarriage, and the death of her child were caused by her ingestion of food and water contaminated by the chemical weapons manufactured by one, some or all of the defendants. *Id.*, ¶217.

Plaintiffs bring this action on behalf of themselves and all other Vietnamese nationals who were exposed to herbicides used in the war with the United States at any time and were in any way injured, became ill, suffered from birth defects, or died as a result. *Id.*, ¶252.

ARGUMENT

I. STANDARD OF REVIEW

Though familiar, the standard governing a motion to dismiss for failure to state a claim bears repeating here. Federal Rules of Civil Procedure 12(b)(6) authorizes the Court to dismiss a complaint on its face only if “it appears beyond doubt that the plaintiff can prove no set of facts in support of his claim which would entitle him to relief.” *Conley v. Gibson*, 355 U.S. 41, 45-46 (1957); *see also Phillip v. Univ. of Rochester*, 316 F.3d 291, 293 (2d Cir. 2003); *Sinha v. New York City Dept. Of Educ.*, 2004 U.S. Dist. LEXIS, at *4 (E.D.N.Y. Apr. 26, 2004). The court must accept as true all allegations in the complaint, and must draw all reasonable inferences in the plaintiff’s favor. *See Hartford Courtant Co. v. Pellegrino*, 380 F.3d 83, 90-91 (2d Cir. 2004). Thus, “the court’s function on a motion to dismiss is not to weigh the evidence that might be presented at a trial but merely to determine whether the complaint itself is legally sufficient.” *Festa v. Local 3 International Bhd. Of Elec. Workers*, 905 F.2d 35, 37 (2nd Cir. 1990).

Further, to adequately state a claim a complaint need only contain “a short and plain statement of the claim showing that the pleader is entitled to relief.” *Swierkiewicz v. Sorema N.A.*, 534 U.S. 506, 512 (2002) (quoting Fed. R. Civ. P. 8(a)(2)); *see also Phelps v. Kapnolas*, 308 F.3d 180, 186 (2d Cir. 2002). “[A] complaint is sufficient if it gives “fair notice of what the plaintiff’s claim is and the grounds upon which it rests.” *Phelps*, 308 F.3d at 187 (quoting *Swierkiewicz*, 534 U.S. at 512); *see also In re Initial Public Offering Sec. Litig.*, 241 F. Supp. 2d 281, 323 (S.D.N.Y. 2003) (“Rule 8(a) does not require plaintiffs to plead the legal theory, facts or elements underlying their claim.”). “At the pleading stage, then, [t]he issue is not whether a plaintiff will ultimately prevail but whether the claimant is entitled to offer evidence to support

the claim.” *Eternity Master Global Fund, Ltd. v. Morgan Guar. Trust Co.*, 375 F.3d 168, 177 (2d Cir. 2004) (citation and quotation marks omitted).

Furthermore, it is well settled that a complaint is deemed to include “documents that the plaintiffs either possessed or knew about and upon which they relied in bringing the suit.” *Rothman v. Gregor*, 220 F.3d 81, 88 (2nd Cir. 2000); *Pujol v. Universal Fidelity Corp.*, 2004 U.S. Dist. LEXIS 10556, at *3 (E.D.N.Y. June 9, 2004)(“On a motion to dismiss [a court may consider] documents either in [plaintiff’s] possession or of which [plaintiff] had knowledge and relied on bringing suit.”) Thus, when deciding a motion to dismiss pursuant to Rule 12(b)(6), the Court may consider documents attached to the complaint as exhibits or incorporated in it by reference. *See Brass v. American Film Techs, Inc.*, 987 F.2d 142, 150 (2nd Cir. 1993); *In re MSC Indus. Direct Co, Inc Sec Litig.*, 283 F.Supp. 2d 838, 845 (E.D.N.Y. 2003)(holding the “Court must confine its consideration to . . . documents appended to the complaint or incorporated in the complaint by reference”).

Plaintiffs’ statement of facts expands on those facts contained in their First Amended Complaint. By doing so, it is not the intent of the plaintiffs to convert this motion into one for summary judgment. Rather, all facts referred to that were not pled expressly in the First Amended Complaint are either specifically referenced therein or were relied on by plaintiffs in bringing suit, or fall into one of the following two categories, both of which are appropriate for judicial notice under FRE 201(b): public records, and documents from the MDL-381 file, *see e.g., Kinnet Dairies, Inc. v. Farrow*, 580 F.2d 1260, 1277 (5th Cir. 1978)(“Courts are particularly apt to take notice of materials in court files”)(quoting 1 Weinstein & Berger, Weinstein’s Evidence, 48 (Supp. 1977)).; *see also St. Louis Baptist Temple, Inc. v. FDIC*, 605 F.2d 1169,

1172 (10th Cir.1979) ("Judicial notice is particularly applicable to the court's own records of prior litigation closely related to the case before it."); *Strahan v. Coxe*, 939 F.Supp. 963 (D. Mass. 1996) (collecting cases).

II. PLAINTIFFS' CLAIMS ARE JUSTICIABLE

Plaintiffs in this case assert severe injuries and death – to themselves, their children, and other members of their families – as a result of the defendants' complicity in the destruction of a substantial part of their homeland and their agriculture. To a large degree this devastation was accomplished by an ingredient totally unnecessary to the military strategy of defoliation, the poison chemical dioxin. Plaintiffs allege that defendants provided this poison to the Government with full knowledge of its toxicity and its intended use – and thus of its potential to inflict extensive injury on a massive scale. As the complaint alleges, defendants' provision of this poison to the Government violated bright line rules of customary international law. Plaintiffs invoke the jurisdiction of this Court under a federal statute uniquely designed to redress such violations – the Alien Tort Statute of 1789, 28 U.S.C. § 1350 ("ATS"). This statute reflects the "express legislative mandate of the Congress" to create a judicial remedy for precisely the sort of well-established human rights violations, and disputes under the laws of nations, at issue in this case. *Kadic v. Karadzic*, 70 F. 3d 232, 249 (2nd Cir. 1995). Accordingly, there is no question but that this Court can and should adjudicate plaintiffs' claims.

A. The Mere Fact That This Case Implicates War And Foreign Affairs Presents No Bar to Justiciability

Defendants, as well as the Department of Justice,⁴⁴ ask the Court to disregard its historical

⁴⁴ The Department of Justice has also submitted a memorandum of law, which largely tracks the arguments made by the defendants. To the extent it does so, the points raised by the Government are not addressed separately. As a general matter, however, plaintiffs note that the memorandum submitted by the Government, although styled as a “Statement of Interest of the United States,” is more properly characterized as brief of the Government as *amicus curiae*. Notably, the brief does not state that it is filed on behalf of or written in conjunction with a particular executive department, such as State or Defense. Nor does the submission contain an affidavit or statement from a responsible government official setting for the official position of the government on these matters. See, e.g., *In re South African Apartheid Litigation*, 238 F.Supp. 2d 1379 (JPML 2002)(Letter from Legal Advisor to the Department of State). Nor does the brief contain references to, much less declarations of, factual matter beyond that cited by chemical companies – i.e., factual matters about which the Executive Branch might be expected to have particular insight or expertise. In essence, the “Statement of Interest” is a memorandum of law offering the Justice Department’s opinions on the legal issues before the Court. While the Supreme Court in *Sosa v. Alvarez-Machain*, 124 S.Ct. 2739 (2004) noted in dicta that the views of Executive Branch on the impact of a particular case on foreign policy might be entitled to weight in the determination of whether a particular international law violation should be actionable under the ATS, 124 S. Ct. 2766 n.21, nothing in *Sosa* permits Article III courts to defer to the Executive’s views on *legal* doctrine, particularly as regards matters of jurisdiction and justiciability. See *W.S. Kirkpatrick & Co. v. Env’tl Tectonics Corp., Int’l*, 493 U.S. 400, 409 (1990) (rejecting argument of Executive Branch to expand the act of state doctrine to accommodate the Executive’s policy concerns); *First Nat’l City Bank v. Banco Nacional de Cuba*, 406 U.S. 759, 790 (1972) (Brennan, J., dissenting) (“The task of defining the contours of a political question such as the act of state doctrine is exclusively the function of this Court”; noting that six Justices agreed with repudiation of the ‘Bernstein exception’ to the act of state doctrine, which gave determinative weight to opinions of Department of State on justiciability of particular claims); see also *Kadic v. Karadzic*, 70 F.3d 232, 250 (2d Cir. 1995) (“[E]ven an assertion of the political question doctrine by the Executive Branch, entitled to respectful consideration, would not necessarily preclude adjudication.”); *South African Airways v. Dole*, 817 F.2d 119, 123 (D.C. Cir. 1987) (rejecting Secretary of Transportation’s invocation of political question in case challenging propriety of executive order revoking permit of South African air carrier). While entitled to due consideration, of course, the Justice Department’s legal opinions “merit no special deference.” See *Republic of Austria v. Altmann*, 124 S.Ct. 2240, 2255 (2004). Indeed, for this Court to give special weight to the Justice Department’s opinions on purely legal matters would violate the very principles of separation of powers to which the Department and defendants proclaim such fealty. Such deference trenches not only upon the province of the judiciary, of course, but also upon the power of Congress to define the jurisdiction of the federal courts generally, as well as the particular mandate of Congress, under 28 U.S.C. § 1350, to create jurisdiction for violations of the laws of nations.

jurisdiction under the ATS and, indeed, to evade its constitutional responsibility under Article III of the United States Constitution to adjudicate cases and controversies before it. Defendants urge the Court to take this extraordinary step based on a rote application of the oft-repeated generality that “[t]he conduct of the foreign relations of our government is committed by the Constitution to the executive and legislative – ‘the political’ – departments of the government, and the propriety of what may be done in the exercise of this political power is not subject to judicial inquiry or decision.” *Oetjen v. Cent. Leather Co.*, 246 U.S. 297, 302 (1918). The mere fact that this case arises out of a foreign war, defendants contend, even one that ended 30 years ago, renders it ipso facto nonjusticiable.

Both the Supreme Court and Second Circuit have rejected this facile and absolutist approach to the political question doctrine. In *Baker v. Carr*, the Supreme Court expressly cautioned that “it is error to suppose that every case or controversy which touches foreign relations lies beyond judicial cognizance.” 369 U.S. 186, 211 (1962); accord *Japan Whaling Assn. v. American Cetacean Soc.*, 478 U.S. 221, 229-30 (1986), see also *Klinghoffer v. S.N.C. Achille Lauro*, 937 F. 2nd 44, 49 (2nd Cir. 1991) (“The fact that the issues before us arise in a politically charged context does not convert what is essentially an ordinary tort suit into a non-justiciable political question.”); *Planned Parenthood Fed’n, Inc. v. Agency for Int’l Development*, 838 F.2d 649, 655 (2d Cir. 1988) (“The fact that this case involves foreign affairs, an area constitutionally committed to the executive and legislative branches, does not end the court's inquiry as to whether the action presents a political question.”) Supreme Court jurisprudence, including several cases relied on by defendants, reveals numerous instances in which the Court has adjudicated matters “touch[ing] foreign relations” – indeed, matters having a

substantial impact on ongoing foreign and defense policy. *See, e.g., Hamdi v. Rumsfeld*, 124 S. Ct. 2633 (2004); *Rasul v. Bush*, 124 S. Ct. 2686 (2004); *Japan Whaling Assn.*, 478 U.S. 221; *Dames & Moore v. Regan*, 453 U.S. 654 (1981); *New York Times Co. v. United States*, 403 U.S. 713 (1971); *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579 (1952).

In the particular context of claims under the ATS, the Second Circuit has explicitly rejected the reflexive invocation of the political question doctrine that defendants urge here:

Two nonjurisdictional, prudential doctrines reflect the judiciary's concerns regarding separation of powers: the political question doctrine and the act of state doctrine.... Although we ... recognize the potentially detrimental effects of judicial action in cases of this nature, we do not embrace ... categorical views as to the inappropriateness of judicial action urged. Not every case "touching foreign relations" is nonjusticiable ... and judges should not reflexively invoke these doctrines to avoid difficult and somewhat sensitive decisions in the context of human rights. We believe a preferable approach is to weigh carefully the relevant considerations on a case-by-case basis. This will permit the judiciary to act where appropriate in light of the express legislative mandate of the Congress in section 1350, without compromising the primacy of the political branches in foreign affairs.

Kadic, 70 F.3d at 249 (citations omitted).

As in *Kadic*, review of the "relevant considerations" under *Baker v. Carr* makes clear that this case presents no question this Court cannot or should not decide.

B. The Adjudication Of Human Rights Claims Under 28 U.S.C. §1350 Is Constitutionally Committed To The Judiciary

First, "[w]hile the Constitution commits the responsibility for foreign affairs to the executive and legislative branches ... this grant of authority is not dispositive." *Olegario v. United States*, 629 F.2d 204, 217 (2d Cir. 1980). As *Olegario* and the long line of authority cited above make clear, the truism that the conduct of foreign relations and military affairs is constitutionally committed to the political branches does not satisfy the political question inquiry.

For this reason, “it has been suggested that ‘the constitutional commitment’ criteria should be de-emphasized in foreign affairs cases because such cases are clearly not automatically immune from judicial review even though the Constitution vests foreign affairs authority in the political branches.” *Id.* at 217; *see also United States v. Lindh*, 212 F. Supp. 2d 541, 556 (E. D. Va. 2002) (“At the highest level of abstraction, it may be argued that the Constitution commits the conduct of foreign affairs to the President. This is hardly a clear, demonstrable constitutional commitment to the President to construe and apply treaties free from judicial review.”). Indeed, even where, as here, cases arise from the course of military operations, federal courts have repeatedly exercised their the authority to vindicate individual rights. *See, e.g., Rasul*, 124 S.Ct. at 2698-99 (federal courts have jurisdiction to hear challenges to detention brought by foreign nationals detained by U.S. armed forces as part of ongoing military campaign in Afghanistan);⁴⁵ *Hamdi*, 124 S. Ct. at 2650 (“We have long since made clear that a state of war is not a blank check for the President when it comes to the rights of the Nation's citizens.”); *The Paquete Habana*, 175 U.S. 677 (1900) (determining whether seizure by U.S. Navy of Spanish fishing vessels during Spanish-American war violated international law); *Koohi v. United States*, 926 F.2d 1328, 1331-1332 (9th Cir. 1990) (finding justiciable the claims by heirs of deceased passengers and crew of civilian aircraft shot down by United States warship during Iran-Iraq war); *Ramirez de Arrellano v. Weinberger*, 745 F.2d 1500, 1512-15 (D.C. Cir. 1984) (rejecting political question doctrine in

⁴⁵ Indeed, the *Rasul* Court expressly recognized jurisdiction under the Alien Tort Statute, noting that § 1350 “explicitly confers the privilege of suing for an actionable ‘tort ... committed in violation of the law of nations or a treaty of the United States’ on aliens alone. The fact that petitioners in these cases are being held in military custody is immaterial to the question of the District Court's jurisdiction over their nonhabeas statutory claims.” *Id.* at 2699.

lawsuit challenging the establishment and operation of U.S. military training camp on plaintiffs' property in Honduras), *vacated*, 471 U.S. 1113 (1985), *and dismissed on different grounds*, 788 F.2d 762 (D.C. Cir. 1986); *McKay v. United States*, 703 F.3d 464, 470 (10th Cir. 1983) (rejecting political question doctrine as a bar to tort claims against the government for damages caused by radiation emissions from nuclear weapons plant).

In finding the political question doctrine inapplicable, the *McKay* court rejected the following analysis by the district court:

The primary dispute in this litigation arises because the Congress and a succession of Presidents have determined that nuclear weapons are necessary for the national defense and they have selected the Rocky Flats Plant as a place to produce components of such weapons. Those decisions are not reviewable in this court at this time.... It is my considered view that the determination of the existence of [radiation] hazards and the acceptability of them are also political decisions for the Congress and the President.

McKay, 703 F.2d at 464 (quoting *Good Fund Ltd.-1972 v. Church*, 504 F. Supp. 519, 540 (D.C. Colo. 1982)). This rejected argument mirrors that made by the Government in this case:

Decisions regarding what weaponry to use, and how to use it, in order to save American soldiers' lives and achieve the Nation's military objectives are inherently discretionary, complex, and subject to military expertise. They involve a wide variety of military considerations. In a word, such decisions are political, not legal, decisions....

Gov't Mem. at 18.

This argument is no more persuasive here than it was in *McKay*. As the 10th Circuit explained in rejecting the application of the political question doctrine:

[i]t is true that there are political aspects present in, for example, making the decision to manufacture nuclear components but this does not reach beyond the actual decision for purposes of making it a political question. Nor does it rule out all the possible remedies which are available to people who are either physically

hurt or materially hurt. Thus the political question theory and the separation of powers doctrines do not ordinarily prevent individual tort recoveries.

McKay, 703 F.2d at 464.

Congress's passage of the ATS itself, the continued viability of which was recently affirmed in *Sosa*, constitutes an acknowledgment that adjudication of international human rights violations is within the competence of the judiciary. The Second Circuit has expressly noted this fact, stating "[t]he department to whom this issue has been 'constitutionally committed' is none other than our own – the Judiciary." *Kadic*, 70 F.3d at 249 (citing *Klinghoffer*, 937 F.2d at 49). The executive branch itself, under a different administration, has also recognized that the judiciary must play a role in the enforcement of international human rights. See Memorandum for the United States Submitted to the Court of Appeals for the Second Circuit in *Filartiga v. Pena-Irala*,⁴⁶ 19 I.L.M. 585 (May 29, 1980) ("[S]uits alleging violations of fundamental human rights ... unquestionably implicate foreign policy considerations.. But not every case or controversy which touches foreign relations lies beyond judicial cognizance.... Like many other areas affecting international relations, the protection of fundamental human rights is not committed exclusively to the political branches of government.") (citations omitted).

No more or less than the United States veterans' Agent Orange litigation, the instant lawsuit implicates "the wartime activities of the United States itself" and "the Nation's military decisions." Def. Mem. at 18. Despite the veterans' suits clear grounding in "foreign affairs," however, not once in any of the "hundreds of published and unpublished decisions" in the veterans' litigation, which has lasted 25 years, *In re "Agent Orange" Prod. Liability Litig.*, 304

⁴⁶ The Second Circuit's ensuing opinion is published at 60 F.2d 876 (2d Cir. 1980).

F. Supp. 2d 404, 410 (E.D.N.Y. 2004), did this Court or any other find that adjudicating these unquestionably complex and “political” cases was beyond its province. Whatever the other problems this Court has identified with the veterans’ suits, its authority to decide them has never been, nor should be, in doubt.⁴⁷ Nor should there be any such doubt in this instant case. Indeed, the very essence of the Alien Tort Statute is to provide a forum to adjudicate matters arising out of wars and other “foreign affairs.” The existence of this statute creates an obligation to hear such disputes that this Court should not lightly disregard. *See Japan Whaling*, 478 U.S. at 230 (“[U]nder the Constitution, one of the Judiciary's characteristic roles is to interpret statutes, and we cannot shirk this responsibility merely because our decision may have significant political overtones.”); *W.S. Kirkpatrick & Co. v. Env’tl Tectonics Corp., Int’l*, 493 U.S. 400, 409 (1990) (“The short of the matter is this: Courts in the United States have the power, and ordinarily the obligation, to decide cases and controversies properly presented to them.”); *Cohens v. Virginia*, 19 U.S. (6 Wheat.) 264 (1821) (Marshall, C.J.) (“We have no more right to decline the exercise of jurisdiction which is given, than to usurp that which is not given. The one or the other would be treason to the constitution. Questions may occur which we would gladly avoid; but we cannot avoid them.”); *see also Tel-Oren v. Libyan Arab Republic*, 726 F.2d 774, 796-98 (D.C. Cir. 1984) (Edwards, J., concurring) (“I am the first to admit that section 1350 presents difficulties in implementation, but to construe it out of existence on that ground is to usurp Congress' role and contravene its will.”).

⁴⁷ Defendants themselves apparently never even raised the issue of justiciability in the veterans’ suits, nor apparently did the Government ever argue that the suits against the chemical companies were nonjusticiable.

Defendants' conclusory invocation of the political branches' power to wage war thus misses the mark. As the foregoing authority makes clear, under the Constitution it is the province and the duty of this Court to protect the individual rights of the litigants before it, even where doing so involves entering politically sensitive territory. This duty is reinforced by the Alien Tort Statute, which expressly creates jurisdiction for matters such as the instant one "touch[ing] foreign affairs." *Baker*, 369 U.S. at 211.

Defendants' attempt to identify a more specific function allegedly "committed to the political branches" – the negotiation of reparations – fares no better. Defendants assert that "the questions whether and what reparations are due ... are ones that must be resolved by the political departments, not the judicial branch." Def. Mem. at 17. Because the United States has purportedly made an affirmative decision not to make reparations to the Vietnamese for the harms inflicted by Agent Orange, and because plaintiffs here allegedly seek reparations, defendants argue that allowing this lawsuit to go forward would hinder ongoing diplomatic relations between the two countries. This argument rests on flawed premises of fact and law.

As an initial matter, plaintiffs' vigorously dispute that the relief plaintiffs seek is "reparations." Plaintiffs are private individuals seeking private tort remedies against private defendants. *See Ungaro*, 379 F.3d at 1236-37 ("The present litigation against two foreign corporations is subject to the political question analysis only because the executive has entered into international negotiations over this topic. Thus, the courts should look to the results of those negotiations to determine if judicial resolution of the claim would interfere with the executive's conduct of foreign relations."). Neither the Government of Vietnam nor the United States Government is a party to this lawsuit. Further, and as discussed below, neither government has

purported to address plaintiffs' injuries through international agreement, treaty, or otherwise, in contrast to the recent lawsuits arising out of World War II.

The definition of reparations upon which the Government and defendants rely – “all the loss and damage to which ... Governments and their nationals have been subjected as a consequence of the war imposed on them,” *Burger-Fischer v. DeGussa AG*, 65 F. Supp. 2d 248, 275 (D.N.J. 1999) (quoting The Treaty of Peace Between the Allied and Associated Powers and Germany, June 28, 1919, Art. 231) – sweeps far too broadly. If taken literally, such definition would eviscerate the Alien Tort Statute, reading into it a wholly unwarranted “war” exception justified by neither the language nor the purpose of the statute. Given that wars and armed hostilities remain a primary situs of human rights violations, it would be exceedingly strange and inappropriate for the Court to read this broad category of violations out of the statute.⁴⁸ Indeed, defendants' simplistic formulation – all claims arising out of war are reparations claims, and as such are nonjusticiable – would preclude adjudication under the ATS of such clearly established human rights violations as genocide (except in the hypothetical instance in which this occurred outside of a war) and torture (except outside war, its primary context). This formulation, and the holding of the *Burger-Fischer* court that the *judicial* remedies plaintiffs sought in that case were political remedies, have been sharply criticized by commentators. *See, e.g.*, K. Lee Boyd, *Are*

⁴⁸ Congress is perfectly capable of creating such an exception, but sensibly, given the nature of the ATS, has not. *Cf.* 28 U.S.C. § 2680(j) (exempting from Federal Tort Claims Act “any claim arising out of the combatant activities of the military or naval forces, or the Coast Guard, during time of war”). Indeed, Congress has done just the opposite in the years since the Second Circuit's decision in *Filartiga v. Pena-Iralia*, 630 F.2d 876 (2nd Cir. 1980), passing not one but two statutes dealing with torture and with war crimes. *See*, Torture Victims Protection Act, 28 U.S.C. § 1350 and the War Crimes Act, 28 U.S.C. §2441.

Human Rights Political Questions?, 53 Rutgers L. Rev. 277, 298 (2001) (“The plaintiffs in *Iwanowa* and *Burger-Fischer* sought individual judicial relief for their injuries under customary international human rights law. It was only by the courts' finding that these claims were indistinguishable from, or subsumed by, war reparations that the claims became ‘political questions’ and therefore nonjusticiable. However, the flawed assumption underlying the application of the political question doctrine in the *Iwanowa* and *Burger-Fischer* cases was that the plaintiffs' claims for individualized judicial remedies for human rights violations were virtually the same as the politically fashioned remedy of war reparations. However, the focus of the remedy of reparations is the state, not the individual.”).

Both the Government and the defendants erroneously cite the Restatement (3d) of Foreign Relations Law of the United States, also relied on by the District Court in *Burger-Fischer*, 65 F. Supp. 2d at 275, as supporting the position that plaintiffs have no right to sue. Both misleadingly cite to the following comment:

State claims deriving from injury to private persons. Like other claims for violation of an international obligation, a state's claim for a violation that caused injury to rights or interests of private persons is a claim of the state and is under the state's control. The state may determine what international remedies to pursue, may abandon the claim, or settle it. The state may merge the claim with other claims with a view to an en bloc settlement. The claimant state may set these claims off against claims against it by the respondent state. Any reparation is, in principle, for the violation of the obligation to the state, and any payment made is to the state.

Restatement (3d) Foreign Relations § 902, cmt. i. As an initial matter, this language, from the section entitled “Interstate Claims and Remedies,” deals exclusively with claims asserted by the state. While this section stands for the proposition that the government whose nationals’ rights have been violated *may* assert claims on those individuals’ behalf, it does not purport to limit the

right of such individuals to sue on their own behalf in a competent forum. More importantly, even assuming that the Government of Vietnam *could* have asserted claims on plaintiffs' behalf – which they have not done – even the Vietnamese Government could not have extinguished plaintiffs' claims without plaintiffs' consent, inasmuch as these are based on universal human rights norms. *See* Restatement § 702, Reporter's Note 2 (“A state's claim ... for violation of an individual's human rights is subject to the rules governing interstate claims generally, see § 902, and § 713, but claims under Subsection (2) [“for a violation of the customary international law of human rights”], being *erga omnes*, cannot be waived or settled by any one state, and in principle a claim for a violation of the human rights of an individual cannot be waived or settled by a state without the consent of the individual.”). *A fortiori*, the United States Government (much less defendants, private corporations) cannot unilaterally terminate plaintiffs' rights under international law, a point expressly recognized in the very comment on which defendants and the Government purport to rely. *See* Restatement § 902, cmt. i (a state cannot settle or abandon claims of individuals “of other states or of the community at large”).

Defendants' contention that “reparations” are committed exclusively to the executive rests solely on a handful of District Court cases from other jurisdictions involving claims arising out of the Nazi era. Def. Mem. at 17 n.30. The sole Courts of Appeals to consider such claims, however, expressly rejected the very authority relied on by defendants here. *See Ungaro-Benages v. Dresdner Bank AG*, 379 F.3d 1227, 1236 n.12 (11th Cir. 2004) (disagreeing with justiciability determinations in *In re Nazi Era Cases Against German Defendants Litig.*, 129 F. Supp. 2d 370 (D.N.J. 2001); *Burger-Fischer v. DeGussa AG*, 65 F. Supp. 2d 248 (D.N.J. 1999); and *Iwanowa v. Ford Motor Co.*, 67 F. Supp. 2d 424 (D.N.J. 1999)); *Deutsch v. Turner Corp.*, 324 F.3d 692,

713 n.11 (9th Cir. 2003) (similarly rejecting justiciability determinations of these cases). In *Ungaro*, the Eleventh Circuit found the political question doctrine inapplicable despite the “reparations” negotiations to which the Executive had been a party. *Id.* at 1235-37. The Eleventh Circuit relied in part the fact that the President of the United States “has purposely chosen not” to terminate all legal claims arising out of World War II. *Id.* at 1235 & n.11. Here, of course, there has also been no executive decision to terminate plaintiffs claims – or even, as in the Nazi cases after 2000, an international agreement requiring the executive to file a statement of interest urging dismissal of the cases. *See In re Nazi Era Cases*, 129 F. Supp. 2d at 380 (describing this requirement of October 2000 executive agreement between Germany and United States).

Indeed, not only is there no executive order or international agreement purporting to extinguish plaintiffs’ legal claims, there is no mechanism whatsoever, other than this litigation, by which they may seek redress for their injuries. The World War II–era cases occurred in a context in which “the executive branch has manifested its continuing commitment to resolving individual claims arising out of World War II.” *Alperin v. Vatican Bank*, 242 F. Supp. 2d 686, 692 (N.D. Cal. 2003). As those cases describe, “the United States has been a party to numerous treaties and agreements addressing reparations to be paid as a result of actions taken during World War II,” *id.* at 691, culminating in a foundation specifically created “make payments to individual Nazi-era victims for claims against German Industry.” *In re Nazi Era Cases*, 129 F. Supp. 2d at 378; *see also Iwanowa*, 67 F. Supp. 2d at 447-56 (recounting over 50-year history of post-World War II treaties and agreements); *cf. Dames & Moore v. Regan*, 453 U. S. 654, 686-87 (1981) (“Our conclusion is buttressed by the fact that the means chosen by the President to settle

the claims of American nationals provided an alternative forum, the Claims Tribunal, which is capable of providing meaningful relief.”).

In marked contrast to the World War II cases, there is a complete void with regard to any mechanism for compensation for the victims of human rights violations committed during the Vietnam War. As the defendants continuously point out, there is simply no reference to it in the Paris Treaty negotiations or elsewhere. No doubt this is because, unlike in World War II, there was arguably no clear loser in the U.S.-Vietnam conflict and therefore no clear source for such a politically derived remedy. The agreements to which defendants do point as evidence of the diplomatic treatment of Agent Orange claims self-evidently do not speak to plaintiffs’ right to seek judicial remedies. The 1995 Agreement, which defendants cite broadly as evidence of the parties’ “ongoing discussions concerning certain war issues,” Def. Mem. at 13, deals exclusively with claims based on expropriated or nationalized property, and thus has no bearing on the claims at issue here. Def. Ex. 7 (“Agreement Between the United States and Vietnam Concerning the Settlement of Certain *Property* Claims”) (emphasis added). *See also*, 34 I.L.M. 685 (1995). The 2002 Memorandum of Understanding (MOA) is nothing more than a conditional plan for future scientific research into the effects of Agent Orange. Def. Ex. 9. Although scientists from both nations participated in the conference leading to the MOA, all participants expressly noted that their opinions and recommendations “do[] not necessarily reflect the policy of either nation.” *Id.* at 6, 9.

Closer examination of the treaty text and the legislative history of the Agreement on Settlement of Claims provides clear indication that this agreement was meant to apply only to claims for private property taken by the Vietnamese government after the end of the war. No

reasonable interpretation of this agreement can conclude that it bars claims for personal injury, as well as claims for contamination of property by, e.g., chemicals or explosives. Article 31 of The Vienna Convention on the Law of Treaties, which the United States is a signatory to, directs that a “treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of that treaty in their context and in the light of its object and purpose.” *See* 8 I.L.M. 679, 691-92 (1969). “Context” includes “the text, including its preambles and annexes.” *Id.* Following this rule, we look first at how the sections of the treaty fit together.

The text of Article 1 §§ (a)-(b) of the Agreement on Settlement of Claims is carefully drawn to cover, for each side, “claims of the [state] and of nationals . . . arising from the nationalization, expropriation, or taking of, or other measures directed against, properties, rights, and interests of the [state] or . . . nationals.” 34 I.L.M. at 686. Article III of the agreement provides that “title to, or right or interest of any kind in, properties included in claims covered by this agreement shall be transferred by operation of this agreement to the government against which the claim has been made . . .” *Id.*, at 687. Transfer of property as a consequence of a government’s payment of the claim, and the repetition of the term “right or interest” in the context of such transfer, make it clear that the treaty constitutes “full and final settlement” only of claims arising from title to or possession of property. Taken together, the terms of the treaty make it clear that its reference to “other measures directed against [] properties, rights and interests” does not reach claims arising from actions that harmed property but did not disturb possession – such as the very claims asserted by the plaintiffs in this case.

In sum, neither the 2002 Memorandum of Understanding nor the 1995 property settlement remotely suggests that the question of plaintiffs’ right to relief for their injuries is

being addressed diplomatically by the executive branch. Indeed, the Government of Vietnam has expressly pronounced its support for this lawsuit. Defendants' analogy of the instant case to those arising out of World War II is thus inapt.

In its brief, the Government also contends that "allowing plaintiffs' claims to proceed would interfere with the United States' ongoing bilateral relationship with Vietnam, particularly as it relates to the effect of chemical herbicides used in Vietnam." Gov't Mem. at 39. As noted above, the "Statement of Interest" does not rely on any declaration or even letter from a State Department official, as one might have expected it would. *See Republic of Austria v. Altmann*, 124 S.Ct. at 2255 ("[S]hould the State Department choose to express its opinion on the implications of exercising jurisdiction over particular petitioners in connection with their alleged conduct, that opinion might well be entitled to deference as the considered judgment of the Executive on a particular question of foreign policy.") (emphasis removed); *cf. King v. Conde*, 121 F.R.D. 180, 189 (E.D.N.Y. 1988) (assertion of evidentiary privilege requires particularized affidavit from competent agency official; generalized assertion of policies behind privilege insufficient). Instead, the statement from the Justice Department relies mainly on the same scant evidence of ongoing bilateral relations on the issue of herbicides as the defendants. To the extent the Statement makes additional factual statements, these are simply unsubstantiated by anything in the record. *E.g.*, Gov't Mem. at 40 ("The [2002 Memorandum of Understanding concerning scientific research] was the result of years of diplomatic negotiations with the Vietnamese regarding the use of chemical herbicides containing dioxin during the war."); *id.* at 1 ("plaintiffs seek to achieve via litigation what their Government has not achieved through diplomacy) (emphasis added). This inability to make a more substantial showing of how this suit would

interfere with these relations is telling. Indeed, even if it had emanated from the State Department, this razor-thin showing of potential diplomatic friction would hardly warrant this Court's abstention. When faced with similarly implausible and poorly substantiated Statements of Interest from the executive, courts have declined to follow such Statements as unworthy of deference. *See, e.g., Washington Post Co. v. United States Dep't of State*, 840 F.2d 26, 36-37 (1988), *vacated on other grounds*, 898 F.2d 793 (D.C. Cir. 1990) ("And whatever weight the opinion of the Department [of State], as a presumed expert in the foreign relations field, is able to garner, deference cannot extend to blatant disregard of countervailing evidence."); *Carl Marks & Co., Inc. v. Union of Soviet Socialist Republics*, 665 F. Supp. 323, 331-32 (S.D.N.Y. 1987) (in vacating default against USSR on the merits, giving no weight to submissions of United States urging such relief that "insist on the importance of this litigation to bilateral relations between the United States and the Soviet Union"); *cf. In re Estate of Ferdinand E. Marcos Human Rights Litig.*, 978 F.2d 493, 500 (9th Cir. 1992) (refusing to defer to Executive Branch's amicus brief withdrawing support for *Filartiga*; "We do not read the executive branch's flip on this issue as signifying so much; its change of position in different cases and by different administrations is not a definitive statement by which we are bound.").

C. The Remaining *Baker* Factors Weigh In Favor Of Justiciability

The second and third *Baker v. Carr* factors also present no obstacle to jurisdiction under the ATS. As the Second Circuit has held,

our decision in *Filartiga* established that universally recognized norms of international law provide judicially discoverable and manageable standards for adjudicating suits brought under the Alien Tort Act, which obviates any need to make initial policy decisions of the kind normally reserved for nonjudicial discretion.

Kadic, 70 F.3d at 249; see also *Washington Post Co. v. United States Dep't of State*, 840 F.2d 26, 35-36 n.66 (D.C. Cir. 1988) (noting courts' "confidence in the ability of federal courts to engage in fact finding respecting events transpiring in foreign lands"), *vacated on other grounds*, 898 F.2d 793 (D.C. Cir.1990); Thomas M. Franck, *Political Questions, Judicial Answers: Does the Rule of Law Apply to Foreign Affairs* 7 (Princeton 1992) ("It is the business of the courts to understand any issue of fact or law, aided by exposure to the relevant evidence. Contrary to popular myth, the evidenciary matrix of foreign-relations cases is neither more difficult to present nor harder to understand than other technical data."). The existence of such identifiable standards under the ATS, in turn, further "undermines the claim that such suits relate to matters that are constitutionally committed to another branch." *Kadic*, 70 F.3d at 249 (citing *Nixon v. United States*, 506 U.S. 224, 227-29 (1993)).

As for the fourth through sixth *Baker v. Carr* factors, the Second Circuit has observed that these "appear to be relevant only if judicial resolution of a question would contradict prior decisions taken by a political branch in those limited contexts where such contradiction would seriously interfere with important governmental interests." *Kadic*, 70 F.3d at 249. Here, defendants identify two decisions that it would allegedly be inappropriate for this Court to "contradict": the "decision" by the executive not "to make reparations injuries allegedly caused by the military's use of Agent Orange," Def. Mem. at 17, and the decisions made by the President and Congress of "how ... to prosecute the war in Vietnam." Def. Mem. at 20. Plaintiffs' lawsuit challenges neither such decision, much less threatens important government interests.

With respect to the executive’s refusal to provide relief to Vietnamese victims of Agent Orange, defendants have failed even to identify any such decision. As discussed, nothing in the 1995 Agreement or the 2002 Memorandum of Understanding purports to address, much less extinguish, the legal claims of Vietnamese nationals based on the harm caused by private corporations such as defendants. While it is true, of course, that no remediation has been provided, defendants have not identified any executive order, agreement, or statement purporting to disallow or even discourage such claims – nor, tellingly, has the Government been able to point to any such evidence. Indeed, other than generalized references to “current diplomatic, economic, trade, aid, and security relationships,” Def. Mem. at 14, and “the United States’ ongoing bilateral relationship with Vietnam,” Gov’t Mem. at 39, defendants and the Government itself have not identified any executive interests or programs that would be threatened by this Court’s adjudication of plaintiffs’ claims.⁴⁹ Without actual involvement of the Government in the claims at issue, defendants – private corporations – stand in no different shoes than any other private party. *See Ungaro*, 379 F.3d at 1236-37 (“The present litigation against two foreign corporations is subject to the political question analysis only because the executive has entered into international negotiations over this topic. Thus, the courts should look to the results of those negotiations to determine if judicial resolution of the claim would interfere with the executive’s conduct of foreign relations.”).

⁴⁹ The Government’s unsubstantiated statement that “the precise subject matter at issue [in this case] has been the subject of diplomatic negotiations,” Gov’t Mem. at 41, is a transparent attempt to liken this case to the Nazi Era cases, where, in stark contrast to the instant case, plaintiffs’ claims had in fact been the subject of diplomatic negotiations. *See Iwanowa*, 67 F. Supp. 2d at 447-56 (describing such negotiations in detail). This statement from a Government lawyer is simply without an evidentiary basis, and as such, merits no consideration.

Defendants’ purported concern for ongoing diplomatic relations rings hollow in light of the public statement of the Vietnamese government expressing support for the instant lawsuit. Far from sharing the belief that the case “could interfere with present sovereign-to-sovereign relations between the United States and Vietnam,” Def. Mem. at 20, Vietnam itself has endorsed plaintiffs’ recourse to this Court as a legitimate response to the continuing “heavy consequences” and “dire effect” of defendants’ actions. (See Exhibit “39” to Moore Affirmation). In light of this support, premature dismissal of the case in supposed deference to the political branches, without providing plaintiffs a full and fair opportunity to pursue their claims, would risk creating the very discord defendants allegedly seek to avoid. *Cf. Sosa*, 124 S.Ct. at 2782 (noting absence of comity concerns where, as here, the conduct in question involves nationals of the forum country, e.g., where an foreigner brings suit in the United States against an American). Indeed, the ATS was enacted to *defuse* international tensions by permitting citizens with private grievances to pursue these without needing to recur to state-to-state diplomacy. *See* Affidavit of Professor George P. Fletcher, at 16-18.

Regarding military decisions of the Executive during the Vietnam War, defendants have failed to identify how judicial airing of these decisions will “seriously interfere with important government interests.” *Kadic*, 70 F.3d at 249. These decisions occurred some 40 years ago, and defendants have pointed to no “unusual need for unquestioning adherence” to them. *Baker*, 369 U.S. at 211.⁵⁰ The remoteness of these decisions sharply distinguishes them from the types of

⁵⁰ Indeed, adherence to the purported decision of the political branches regarding the legality under international law of herbicide operations in Vietnam is particularly unwarranted in light of the lack of any in-depth analysis of such legality on the part of those branches. The “reasoned legal opinion” in the Rusk memo to which defendants and the Government

current executive determinations whose contradiction by the judiciary would “impact on foreign policy.” *Sosa v. Alvarez-Machain*, 124 S.Ct. 2739, 2766 n.21 (citing *In re South African Apartheid Litig.*, 238 F. Supp. 2d 1379 (JPML 2002)). In *Sosa*, the Court suggested the need for “deference to the political branches” in litigation against corporations alleged to have participated in the evils of apartheid, in part because the Government of South Africa had written to the Court to express concern that the lawsuit would interfere with the policies embodied in the Truth and Reconciliation Commission. *Id.* In the instant case, by contrast, precisely the opposite circumstances obtain: the Government of Vietnam has publicly stated its support for the lawsuit as a legitimate “response to the pressing needs of the Vietnamese victims of Agent Orange/dioxin.” (See Exhibit “39” to Moore Affirmation).

Judicial wariness of interfering with *current* policies of the political branches also distinguishes this case from the Vietnam War–era cases relied on by defendants. *See Holtzman v. Schlesinger*, 484 F.2d 1307, 1308 (2d Cir. 1975) (suit seeking injunction against Government

continuously cite is limited to the entirely conclusory statement that “the use of defoliant does not violate any rule of international law concerning the conduct of chemical warfare and is an accepted tactic of war.” Def. Appendix, Ex. 1. Even assuming, *arguendo*, under certain circumstances the determination of the political branches on questions of international law might be entitled to deference, this self-serving, unsubstantiated conclusion hardly constitutes “a reasoned legal opinion,” Gov’t Mem. at 48, and hardly warrants such deference, much less “adherence.” Similarly, the mere appropriation of funds for the use of Agent Orange, even when accompanied by expressions of support for the herbicide campaign generally, Def. Mem. at 11-12, does not constitute a considered determination of the international law questions before this Court. Moreover, the historical record suggests an absence of contemporaneous consideration by Congress of the *toxicity* of Agent Orange – and thus, that it was authorizing the use of poison, as opposed to a mere “herbicide.” See Hearings before Subcommittee on Nat’l Security Policy & Scientific Developments, Committee on Foreign Affairs, House of Representatives, May 1, 1974, at 4 (comments of Sen. Nelson, a “leading authority in the Senate on chemical warfare,” *id.* at 1) (“Certainly everything we have learned about 2,4,5-T indicates that it should be classified as a toxic agent and included within the scope of the protocol ban.”).

“from participating in any way in military activities in or over Cambodia or releasing any bombs which may fall in Cambodia”); *Da Costa v. Laird (Da Costa II)*, 471 F.2d 1146, 1148 (2d Cir. 1973) (suit challenging implementation of presidential directive “ordering the mining of the ports and harbors of North Vietnam and the continuation of air and naval strikes against military targets”); *Da Costa v. Laird (Da Costa I)*, 448 F.2d 1368 (2d Cir. 1971) (suit challenging sufficiency of Executive authority to engage in war in Vietnam). There is simply a world of difference between a lawsuit against the Government seeking to enjoin ongoing military operations and a lawsuit seeking relief, from a private defendant, for its participation in human rights violations in hostilities that have long since ended.⁵¹ Moreover, the Vietnam–era cases were based on the alleged absence of congressional authority for the challenged actions – not, as here, on the issue of the legality of such actions under international law. *See Holtzman*, 484 F.2d at 1308 (reversing declaration of district court that “there is no existing Congressional authority to order military forces into combat in Cambodia or to release bombs over Cambodia”); *Da Costa II*, 471 F.2d at 1146 (challenge to mining operations based on fact that they were “unlawful in the absence of specific Congressional authorization”); *Da Costa I*, 448 F.2d at 1369 (soldier’s challenge to order to report to assignment in Vietnam on the grounds that “because Congress had never declared war against North Vietnam, the defendants’ actions were in disregard of the Constitution”).

⁵¹ Of course, as the Supreme Court has recently affirmed, even in the midst of ongoing hostilities courts may – indeed must – require the executive to act within the confines of the law. *See Rasul*, 124 S.Ct. at 2698-99; *Hamdi*, 124 S. Ct. at 2650.

Defendants and the Government make much of the purported fact that the use of herbicides in Vietnam “for purposes of defoliation and enemy crop destruction,” Gov’t Mem. at 16, was a “strategic and tactical military decision made by the President as Commander in Chief during a time of war.” Id. As such, this “strategy” is argued to be unreviewable by the courts. As plaintiffs’ memorandum of law on international law makes clear, plaintiffs’ vigorously dispute this argument, inasmuch as plaintiffs contend that the President has no constitutional authority, no “discretion” as Commander-in-Chief, to violate international law. (Of course, even less does the Constitution grant such discretion to defendants, private corporations.) Simply put, the laws of war do not admit of “tactical” derogations. Where, as here, plaintiffs’ assert a cause of action arising out of such derogations, this Court has a constitutional obligation to determine whether such violations are actionable in tort under the congressional statute expressly conferring jurisdiction for this purpose.

In any event, even if this Court were to find that the decisions whether and how to use chemical herbicides in Vietnam were “political” ones committed to the executive, plaintiffs’ core claim does not challenge the policy of defoliation, crop destruction, or even the use of herbicides. In this sense, the defendants’ protestations that they merely sought to help American GIs to protect themselves in the midst of a dangerous war, ring false. Operation Ranch Hand could have proceeded unhindered even if defendants had avoided the addition of an “unwanted, altogether useless contaminant,” dioxin. (See Exhibit “29” to Moore Affirmation). Thus, the very premise of the political question defense, that if the courts become involved in foreign policy, it will detract from the ability of the executive to conduct that foreign policy, is inapplicable. Here the military policy could have been, and still would be, unaffected. All that is

at issue here is a superfluous artifact of that policy, the inclusion of a poison that was unnecessary to its goals and dangerous not only to the Vietnamese, but to Americans as well.

Finally, defendants' insistence that a judicial finding that they violated plaintiffs' human rights will undermine our national interests ignores that the vindication of human rights is itself a longstanding, fundamental national commitment. As the executive itself has earlier declared,

[t]he courts are properly confined to determining whether an individual has suffered a denial of rights guaranteed him as an individual by customary international law. Accordingly, before entertaining a suit alleging a violation of human rights, a court must first conclude that there is a consensus in the international community that the right is protected and that there is a widely shared understanding of the scope of this protection.... *When these conditions have been satisfied, there is little danger that judicial enforcement will impair our foreign policy efforts. To the contrary, a refusal to recognize a private cause of action in these circumstances might seriously damage the credibility of our nation's commitment to the protection of human rights.*

Memorandum for the United States in *Filartiga*, 19 I.L.M. at 604 (emphasis added).

* * *

In sum, none of the conditions that weigh in favor of abstention on political question grounds are present in this case. This Court is fully competent to adjudicate the human rights violations alleged in the complaint, and doing so will create no interference with ongoing diplomatic relations or past military strategy. On the country, adjudicating these claims will reaffirm the United States' longstanding commitment to vindicating human rights, a commitment upon which plaintiffs – and the Vietnamese government, which supports their efforts – rely.

**III. THE PRESIDENT DID NOT AND COULD NOT
DISPLACE INTERNATIONAL LAW WITH A
“CONTROLLING EXECUTIVE ACT”**

As a corollary to its argument that the political question doctrine makes this case non-justiciable, the government has set forth the highly untenable argument that the President could displace the international law norms at stake in this case by executive fiat. Aside from the utter lack of evidence that any such “controlling executive act” was ever made on the exact issues presented by this case, this argument is not only wrong, it is dangerous and should be rejected.

It is well-established that customary international law forms part of the law of the land. *See Sosa v. Alvarez-Machain*, 124 S. Ct. 2739, 2764 (2004) (“For two centuries we have affirmed that the domestic law of the United States recognizes the law of nations.”); *The Paquete Habana*, 175 U.S. 677, 700 (1900) (“International law is part of our law, and must be ascertained and administered by the courts of justice of appropriate jurisdiction as often as questions of right depending upon it are duly presented for their determination.”) *The Nereide*, 13 U.S. 388, 423, 9 Cranch 242, 263 (1815) (Marshall, *C.J.*) (“[T]he court is bound by the law of nations, which is a part of the law of the land.”); *Chisholm v. Georgia*, 2 U.S. 419, 474, 2 Dall. 333, 407 (1793) (Jay, *C.J.*) (“[T]he United States had, by taking a place among the nations of the earth, become amenable to the laws of nations; and it was their interest, as well as their duty, to provide, that those laws should be respected and obeyed.”); *see also* Alexander Hamilton, *The Federalist* No. 80, at 536 (J. Cooke ed., 1961) (“The Union will undoubtedly be answerable to foreign powers for the conduct of its members. And the responsibility for injury ought ever to be accompanied by the faculty of preventing it. As the denial or perversion of justice by the sentences of courts, as well as in any other manner, is with reason classed among the just causes of war, it will follow that the federal judiciary ought to have cognizance of all of the causes in which the citizens of other countries are concerned. This is not less essential to the preservation of the public faith than

to the security of the public tranquillity.”). Reaffirming this longstanding principle, the Supreme Court recently stated, “It would take some explaining to say now that federal courts must avert their gaze entirely from any international norm intended to protect individuals.” *Sosa*, 124 S. Ct. at 2764-65.

Equally fundamental is the principle that the President must act within the law, and may not abrogate the law by fiat. *See, e.g., Rasul v. Bush*, 124 S. Ct. 2686, 2699 (2004) (rejecting argument that President’s conduct during wartime is beyond judicial review); *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 655 (1952) (Jackson, J., concurring) (“[M]en have discovered no technique for long preserving free government except that the Executive be under the law, and that the law be made by parliamentary deliberations. Such institutions may be destined to pass away. But it is the duty of the Court to be last, not first, to give them up.”); *Ex parte Milligan*, 71 U.S. (4 Wall.) 2, 119 (1866) (“By the protection of the law human rights are secured; withdraw that protection, and they are at the mercy of wicked rulers.”). The Constitution commands that the President “shall take care that the Laws be faithfully executed.” U.S. Const., Art. II, § 3. Further, our system of government “requires that federal courts on occasion interpret the Constitution in a manner at variance with the construction given the document by another branch.” *United States v. Nixon*, 418 U.S. 683, 703 (1974) (citation and quotation marks omitted). As the *Nixon* Court explained,

Notwithstanding the deference each branch must accord the others, the 'judicial Power of the United States' vested in the federal courts by Art. III, § 1 of the Constitution can no more be shared with the Executive Branch than the Chief Executive, for example, can share with the Judiciary the veto power, or the Congress share with the Judiciary the power to override a Presidential veto. Any other conclusion would be contrary to the basic concept of separation of powers and the checks and balances that flow from the scheme of a tripartite government.

The Federalist, No. 47, p. 313 (S. Mittell ed. 1938). We therefore reaffirm that it is the province and duty of this Court ‘to say what the law is.’

Id. at 703-04 (citing *Marbury v. Madison*, 1 Cranch 137, 2 L.Ed. 60 (1803)).

Another cardinal principle is that the courts must exercise the jurisdiction that Congress confers upon them. As Chief Justice Marshall long ago stated, “We have no more right to decline the exercise of jurisdiction which is given, than to usurp that which is not given. The one or the other would be treason to the constitution. Questions may occur which we would gladly avoid; but we cannot avoid them.” *Cohens v. Virginia*, 19 U.S. (6 Wheat.) 264 (1821); *see also W.S. Kirkpatrick & Co. v. Env’t Tectonics Corp., Int’l*, 493 U.S. 400, 409 (1990) (“The short of the matter is this: Courts in the United States have the power, and ordinarily the obligation, to decide cases and controversies properly presented to them.”).

With these basic tenets in mind, the untenability of the Government’s assertion that the President has the power unilaterally to “displace any customary law norm as the rule of decision” in a case or controversy in an Article III court, Gov’t Mem. at 45, becomes apparent. The power to interpret and apply the “rule of decision” in this case belongs to this Court, in keeping with the “express legislative mandate” of 28 U.S.C. § 1350. *Kadic v. Karadzic*, 70 F. 3d 232, 249 (2nd Cir. 1995). This is the central teaching of *Sosa*, which the Government, though purporting to rely on, Gov’t Mem. at 45, thoroughly misconstrues. In *Sosa*, the Supreme Court recognized the federal courts’ mandate from the legislature, embodied in the Alien Tort Statute, to entertain a limited set of common law claims derived from the law of nations. *See id.* at 2761, 2765. Despite almost twenty-five years of judicial practice acting upon this interpretation of the congressional will, “Congress, however, has not only expressed no disagreement with our view of the proper

exercise of the judicial power, but has responded to its most notable instance by enacting legislation supplementing the judicial determination in some detail.” *See id.* at 2765 (citing to the Torture Victim Protection Act). Though *Sosa* recognized that the Executive branch enjoys, along with Congress, “discretion ... in managing foreign affairs,” *id.* at 2763, and that the Executive’s opinion as to the wisdom of adjudicating a particular case is entitled to deference. *id.* at 2766 n.22, nothing in *Sosa* or any other Supreme Court opinion purports to give the “President himself” the power to “displace the application of customary international law in the domestic legal system.” Gov’t Mem. at 45.⁵²

The Government, and the two Circuit Court opinions it relies on, locate this extraordinary executive power in a single ambiguous dicta in *The Paquete Habana*, 175 U.S. 677, 700 (1900), that international law is the law of the land “where there is ... no controlling executive or legislative act.”⁵³ The full passage is as follows:

⁵² As the passage quoted by the Government itself clearly recognizes, any power to “shut the door” to federal courts’ jurisdiction to adjudicate customary international law disputes rests squarely with *Congress*, not the President. *Sosa*, 124 S. Ct. at 2765.

⁵³ The Government also cites *The Schooner Exchange v. McFaddon*, 11 U.S. (11 Cranch.) 116, 146 (1812), for the broad and erroneous proposition that “customary international law cannot be part of federal common law if the federal political branches authorize conduct that varies from the international legal principle at issue.” Gov’t Mem. at 46. The passage apparently relied on by the Government conferred no such broad right of abrogation on the executive, but merely recognized the then-accepted principle that the executive may, by exercise of “power ... exerted in a manner not to be misunderstood,” *id.* at 146, impart jurisdiction over a foreign sovereign despite the presumption of sovereign immunity. Nothing in *McFaddon* creates an unfettered right of the executive to create or displace federal law. Nor does any such right exist, even with respect to sovereign immunity. *See Altmann*, 124 S.Ct. at 2249, 2255-56 (discussing courts’ supremacy in this area under the Foreign Sovereign Immunities Act of 1976, 28 U.S.C. § 1602 *et seq.*, and noting merely the possibility of deference to executive’s views of the facts in a particular case).

International law is part of our law, and must be ascertained and administered by the courts of justice of appropriate jurisdiction, as often as questions of right depending upon it are duly presented for their determination. For this purpose, where there is no treaty, and no controlling executive or legislative act or judicial decision, resort must be had to the customs and usages of civilized nations.

Id. The comment about “controlling executive or legislative act” is pure dicta, and its meaning is far from clear. As Professor Henkin observed, “[t]he qualification, ‘where there is no treaty, etc.,’ was dictum. The Supreme Court did not cite any authority for that dictum. It did not explain why international law, as the law of the land, would not be given effect when there was a “controlling legislative or executive act”; it did not explain whether every legislative or executive act would be controlling, or which legislative or executive acts were controlling for the purpose. We can only speculate as to what the Court meant.” Louis Henkin, *Agora: May the President Violate Customary International Law?*, 80 Am. J. Int’l Law 930, 931 (1986).⁵⁴ The Supreme Court has never clarified this statement, which simply cannot bear the weight the Government places on it.

On the contrary, the clear duty of the President to “take care that the Laws be faithfully executed,” and the equally clear duty of the judiciary identify to and apply the law, including international law – duties that have been consistently reaffirmed by the Supreme Court – sharply

⁵⁴ Although Professor Henkin speculated that the President might in limited circumstances have the power to disregard international law violations, *id.* at 936-37, other scholars have disagreed. See Jordan J. Paust, *The President Is Bound by International Law*, 81 Am. J. Int’l L. 377 (1987) (“Despite professorial conjecture, the answer to such a question [can the president violate international law], which can be documented in actual trends in legal decision, emphatically has been no.”); Jules Lobel, *The Limits of Constitutional Power: Conflicts Between Foreign Policy and International Law*, 71 Va. L. Rev. 1071, 1075 (1985)(arguing that separation of powers requires president to gain congressional approval to international law and that even jointly, Congress and the President have no authority to violate fundamental international norms).

attenuate whatever executive authority, if any, can be traced to this 100-year-old dictum. Indeed, the duty of the executive to act within the constraints of international law was recently affirmed in a case involving a far clearer “executive act” than anything identified by the Government in this case. In *Hamdan v. Rumsfeld*, 2004 WL 2504508, at *6-10 (D.D.C. Nov. 8, 2004), the court rejected factual and legal determinations of the President in concluding that the Third Geneva Convention applied to an alleged enemy combatant seized in Afghanistan. The import of *Hamdan* is clear: even when acting as Commander in Chief, the President may not simply construe international law out of existence, nor may he impose upon the court conclusive factual findings concerning whether such law has been satisfied. Indeed, *Hamdan* comports with the long line of cases in which courts have overridden executive determinations regarding the nation’s international obligations. *See, e.g., Perkins v. Elg*, 307 U.S. 325 (1939) (overturning State Department’s interpretation of naturalization treaty); *Jones v. Meehan*, 175 U.S. 1, 32 (1875) (rejecting congressional and Executive Branch’s interpretation of treaty because “the construction of treaties is the peculiar province of the judiciary”); *see also Japan Whaling Assn. v. American Cetacean Soc.*, 478 U.S. 221, 230 (1986) (“[C]ourts have the authority to construe treaties and executive agreements.”).

Thus, while plaintiffs have no quarrel with the proposition that the executive’s reasonable interpretation of international obligations is entitled to deference, *see* Gov’t Mem. at 47-49, plaintiffs emphatically reject the Government’s suggestion that the mere acts of the President, by themselves, override such obligations.

In any event, there is no evidence in this case that the executive even offered an interpretation of the propriety under international law of the conduct plaintiffs complain of – the

use of *toxic* chemicals. As plaintiffs discuss elsewhere, all of the Government’s “interpretations” of the relevant international norms rely on the faulty premise that what it was spraying in Vietnam was “harmless to man.” *See* Gov’t Mem. at 10 (citing Army Field Manual interpreting Article 23(a) of 1907 Hague Convention); *see also id.* (citing Gen. Counsel of Department of Defense) (“Neither the Hague Regulations nor rules of customary international law ... prohibit the use of antiplant chemicals for ... destruction of crops, *provided that their use against crops does not cause such crops as food to be poisoned nor cause human beings to be poisoned by direct contact.*”) (emphasis added); *id.* (citing Judge Advocate General Opinion)(Hague Convention does not bar “crop-destroying chemicals which *produce no noxious effect upon enemy soldiers*”) (emphasis added). Like the defendants, the Government has consistently maintained that Agent Orange was not toxic and thus that it had no knowledge of any toxicity. Plaintiffs vigorously dispute both of these contentions, of course. What is important for present purposes is that without admitting such toxicity – which qualitatively changes the nature of the defoliation campaign into one of warfare by poison – the Government simply cannot argue that the President performed any “controlling executive act” regarding the international law norm at issue. Put another way, while the executive may well have continuously objected to the existence of international law constraints on the use of herbicides “harmless to man,” it never voiced any such reservations concerning the use of poison. Thus, the Court need not even reach the question of whether the President lawfully could have declared the ancient prohibition on poison null and void, as no such putatively “controlling” act was ever made.⁵⁵

⁵⁵ Indeed, even as to the use of “harmless” herbicides, the executive never engaged in any “controlling” act of the type arguably envisioned in *The Paquete Habana*. Rather than recognize

In sum, this Court should reject the Government's extraordinary and wholly unupportable assertion of unreviewable presidential powers to violate international law and to displace the authority of this Court's to identify and apply such law.

IV. VAVA HAS CLEARLY SATISFIED THE REQUIREMENTS OF ASSOCIATIONAL STANDING

An association has standing to pursue claims on behalf of its members if "(a) its members would otherwise have standing to sue in their own right; (b) the interests it seeks to protect are germane to the organization's purpose; and (c) neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit." *Bano v. Union Carbide Corp.*, 361 F.3d 696, 714 (2d Cir. 2004) (quoting *Hunt v. Washington State Apple Advertising Comm'n*, 432 U.S. 333, 343 (1977)).

In this case, defendants do not contest that the amended complaint satisfies the first two prongs of this test. Nor could they, as it is clear that both requirements have been met. There is no question but that the individual named members of VAVA have shown "injury-in-fact because they have suffered injury to themselves or the loss of a loved one" to Agent Orange/Dioxin poisoning. *NAACP v. Acusport Corp.*, 210 F.R.D. 446, 460 (E.D.N.Y. 2002). Given the massive environmental contamination caused by defendants' products, and the large

the existence of an international obligation, then assert its right to "displace" it, the executive, as defendants and the Government repeatedly point out, consistently asserted that it was at all times acting in accordance with international law. *Cf. Beharry v. Reno*, 183 F.Supp.2d 584, 599 (E.D.N.Y. 2002) (to overrule customary international law, Congress must enact domestic legislation which both postdates the development of a customary international law norm, and *which clearly has the intent of repealing that norm*) (emphasis added), *rev'd on different grounds sub nom. Beharry v. Ashcroft*, 329 F.3d 51 (2nd Cir. 2003).

number of Vietnamese civilians affected, *see, e.g.*, AC ¶ 239, plaintiffs will be able to demonstrate causation through statistical and demographic evidence. *See Acusport Corp.*, 210 F.R.D. at 461 (given NAACP’s large membership, “the probability of harm through injury of one of the group may be shown by statistical and demographic analysis to be sufficiently great as to support representational standing”).

It is also undisputed, and indisputable, that “the interests [VAVA] seeks to protect are germane to the organization’s purpose.” *Bano*, 361 F.3d at 714. As alleged in the amended complaint, “[t]he purpose of the organization is to represent and protect the interests of Vietnamese victims, and to raise funds for treatment and care of victims and mitigation of the harmful effects of the environmental contamination.” AC ¶ 5. The relief requested in the complaint – damages on behalf of the victims of Agent Orange and environmental remediation – thus goes to the core of VAVA’s mission as an organization.

Defendants contest VAVA’s representational standing solely on the grounds that participation of individual members of the organization will be required. Relying on *Bano*, defendants contend that “individual assessments would be required as to the nature, breadth, and severity of the contamination” in order to fulfill any remediation orders and determine the appropriate methods for restoring particular properties. Memorandum of Law in Support of Defendants’ Motion to Dismiss the Claims of Plaintiff Vietnam Association for Victims of Agent Orange/Dioxin in Plaintiffs’ Amended Class Action Complaint for Lack of Standing (“Def. Standing Mem.”) at 9 (citing *Bano*, 361 F.3d at 715-16).

Defendants’ arguments overlook the critical distinction between *Bano* and this case. In *Bano*, the organizational plaintiffs sought “remediation of their members’ *private* properties.”

Bano, 361 F.3d at 715 (emphasis added). Accordingly, “[p]articipation by individual property owners would be needed to permit identification of which properties were contaminated.” *Id.* at 715. Unlike India, Vietnam is a socialist country. Unlike the members of the Indian organizational plaintiffs, plaintiffs and putative class members here do not own their land. Thus, unlike in *Bano*, there is thus no need for assessments of environmental damage to individual parcels of land. The question of plaintiffs’ entitlement to remediation, and the scope and implementation of any such remediation, can thus be litigated without participation of individual members. *See Acusport*, 210 F.R.D. at 458 (“Participation of individual members *is* required where ‘essential to a proper understanding and resolution of their ... claims.’”) (quoting *Harris v. McRae*, 448 U.S. 297, 320-21 (1980)).

As to plaintiffs’ claim for disgorgement of profits, defendants’ contention is equally ill-founded. Defendants contend that individual participation will be required because VAVA’s members concededly have varying levels of injury. Def. Standing Mem. at 9. This argument ignores that disgorgement of profits is an equitable remedy, not a legal one. *See, e.g., Commodity Futures Trading Comm’n v. Vartuli*, 228 F.3d 94, 113 (2d Cir. 2000); *SEC v. Patel*, 61 F.3d 137, 139 (2d Cir. 1995). As such, disgorgement of profits is not, as defendants’ argument suggests, designed to compensate plaintiffs, but “merely deprives the [wrongdoers] of the gains of their wrongful conduct.” *Patel*, 61 F.3d at 139. Accordingly, it is not tied to individual levels of injury. Further, the equitable nature of this remedy also means that the fashioning of an order directing disgorgement is subject to the District Court’s wide discretion, *Vartuli*, 228 F.3d at 113, which can certainly be exercised so as to benefit all plaintiffs without necessitating individual determinations of injury.

Finally, defendants do not allege that there is a “conflict of interest or diversity of views that would prevent [VAVA] from effectively representing its membership.” *Acusport*, 210 F.R.D. at 458; *see also id.* at 461. No such hindrance to adequate representation exists. On the contrary, VAVA, which is run by “Vietnamese victims, attorneys, medical and scientific researchers, as well as prominent people from other disciplines,” AC ¶ 5, is entirely competent to prosecute this case and to superintend any relief awarded. Indeed, given the massive size of the putative class, and the scope of the relief sought, VAVA’s presence in the case well serves the interests of judicial economy and efficiency. For this additional reason, the Court should find that VAVA has satisfied the requirements of representational standing.

V. DISMISSAL OF PLAINTIFFS’ INJUNCTIVE CLAIMS IS NOT WARRANTED AT THIS EARLY STAGE OF THE LITIGATION

“The basis for injunctive relief in the federal courts has always been irreparable injury and the inadequacy of legal remedies.” *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 312 (1982); *accord Ticor Title Ins. Co. v. Cohen*, 173 F.3d 63, 68 (2d Cir. 1999). Here, defendants do not and could not dispute that the complaint adequately alleges both of these prerequisites for an injunction. Specifically, the complaint makes clear that the devastating environmental and health consequences caused by the spraying of defendants’ product continue to this day. *See, e.g.*, First Amended Complaint, ¶¶ 83, 241, 246, 291, 314-18, 326-27. Such a risk to plaintiffs’ well-being clearly constitutes irreparable harm that no legal remedy can adequately redress. *See, e.g.*, *Henrietta D. v. Giuliani*, 119 F. Supp. 2d 181, 214 (E.D.N.Y. 2000) (threat to “health, safety, and lives” warrants injunctive relief). Moreover, it is well established that a district court may order parties over whom it has jurisdiction to act or refrain from acting in areas outside its

jurisdiction. *See Steele v. Bulova Watch Co.*, 344 U.S. 280, 289 (1952). Indeed, the Second Circuit has explicitly recognized the appropriateness in certain situations of the very type of relief sought in this case. *See Bano*, 361 F.3d at 716 (“There may be circumstances in which it is appropriate for a court to grant injunctive relief with respect to remediation of an environmental problem in a foreign country.”) (citing *Jota v. Texaco, Inc.*, 157 F.3d 153, 155, 158 (2d Cir. 1998)).

Defendants do not contest these points. Instead, they focus entirely on prudential and discretionary reasons why plaintiffs’ injunctive claims should be dismissed, allegedly “for failure to state a claim.” Defendants assert that the plaintiffs’ prayer for injunctive relief should be dismissed “because it is wholly impracticable and could compromise Vietnam’s sovereignty.” Memorandum of Law in Support of Defendants’ Motion to Dismiss the Claims for Injunctive Relief in Plaintiffs’ Amended Class Complaint for Failure to State a Claim upon Which Relief May Be Granted. (“Def. Inj. Mem.”) at 1. Neither argument is well-founded, and both are premature.

Defendants argue that because the environmental contamination caused by Agent Orange is so pervasive and widespread, it would be impracticable, and thus inequitable, to order injunctive relief. In essence, defendants seek to avoid answering in equity for the harms they created because of the very magnitude of those harms. This argument, of course, turns the concept of equity on its head. It is precisely because of the severity of the ongoing harms caused by dioxin contamination that equitable relief is necessary and appropriate. Further, the claim of difficulty of enforcement is entirely premature. Only after the issue of liability is fully ventilated will the Court be in a position to fashion relief. At that time, the evidence developed in the case,

rather than defendants' unsubstantiated speculation on a motion to dismiss, will serve as appropriate guideposts and limits to any equitable decree. *See Nat'l Congress for Puerto Rican Rights v. City of New York*, 75 F. Supp. 2d 154, 163-64 (S.D.N.Y. 1999) ("Given the early stage of this litigation, I decline to put the proverbial cart before the horse and prematurely foreclose the granting of any equitable relief whatsoever.").

Defendants' arguments about the potential affront to Vietnamese sovereignty are similarly ill-founded. Indeed, defendants' bare speculation that the environmental cleanup requested would interfere with the sovereignty of the Vietnamese government is simply wrong. The statement of support submitted by the Vietnamese government belies defendants' expressions of concerns for its sovereignty. This statement, which expresses the Vietnamese Government's support of the lawsuit seeking justice for victims of Agent Orange, (See Exhibit "39" to Moore Affirmation), distinguishes this case from *Bano*, the cornerstone of defendants' argument. In *Bano*, the Second Circuit held that the District Court had not abused its discretion in denying injunctive relief where neither "the record contains no communication from [the State of] Madhya Pradesh or Indian government indicating its receptivity to an order of a United States court compelling work on the property." *Bano*, 361 F.3d at 696. Here, the record contains just such a communication. In response to an inquiry from the *Tuoi Tre* newspaper in Vietnam, seeking the position of the government of Vietnam regarding the lawsuit of the Vietnamese victims of Agent Orange /dioxin against the U.S. chemical companies, the Ministry of Foreign Affairs of the Socialist Republic of Vietnam endorsed the suit, finding it a "legitimate action by the Vietnamese victims." (See Exhibit "39" to Moore Affirmation). The statement also suggests quite strongly that the government of Vietnam would not object to any remediation efforts which

might possibly be ordered by this Court should the plaintiffs prevail on their injunctive claims, since it expresses appreciation of the cooperation and assistance Vietnam has received from outside the country for the study of and the relief from the effects of Agent Orange:

Vietnam highly commends the profound empathy and warm support that the international community has shown to the victims. Vietnam is also deeply appreciative of the cooperation and assistance from the world's scientists – including American scientists— organizations and countries in the study and relief of the effects of the Agent Orange/dioxin used by the U.S. Armed Forces during the Vietnam War.

(See Exhibit “39” to Moore Affirmation). In light of this statement, the suggestion by the defendants that permitting the plaintiffs’ injunctive claims to go forward would somehow “compromise Vietnam’s sovereignty,” is wholly speculative and without merit.

Furthermore, while the Second Circuit in *Bano* affirmed the District Court’s opinion denying injunctive relief, the Court of Appeals did not suggest that the District Court’s denial of injunctive relief was compelled. Indeed, the Court expressly authorized the District Court to “revisit its dismissal of the claim for plant-site remediation in the event that the Indian government or the State of Madhya Pradesh seeks to intervene in the action or otherwise urges the court to order such relief.” *Bano*, 361 F.3d at 717. As defendants here recognize, the grant of injunctive relief is discretionary, and the opinion of the District Court in *Bano* is neither binding on this Court nor apt to the circumstances in this case.

This case is also clearly distinguishable from *Vanity Fair Mills, Inc. v. T. Eaton Co.*, 234 F.2d 633, 647 (2d Cir. 1956), also relied on by defendants. In *Vanity Fair Mills*, the plaintiff, an American corporation, sought to enjoin the use in Canada by defendant, a Canadian corporation, of a trademark duly registered by defendant under Canadian law. *See id.* at 645-46. Rejecting

this invitation for international discord, the Court cited two principles: (1) “courts of one state are reluctant to impose liability upon a person who acts pursuant to a privilege conferred by the law of the place where the acts occurred,” and (2) “it is well-established that the courts of one state will not determine the validity of the acts of a foreign sovereign done within its borders.” *Id.* at 646. In the instant case, defendants’ actions, of course, neither were authorized under Vietnamese law nor do they constitute acts of the Vietnamese government. Nor, as the Vietnamese government’s statement makes clear, would the grant of injunctive relief conflict with any such Vietnamese laws, official acts, or policy.

Finally, as described, the Court will be in a far better position after the conclusion of proceedings determining liability to assess the propriety and feasibility of injunctive relief and for that reason the Court should for prudential reasons decline the defendants’ invitation to dismiss the plaintiffs’ injunctive relief claims.

CONCLUSION

For the above stated reasons, and because basic notions of justice and fairness demand it, this Honorable Court should deny the defendants’ motions to dismiss in their entirety.

Dated: New York, New York
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