

**REPORT OF THE
JOINT SUBCOMMITTEE STUDYING**

**The Effects of Exposure
To Agent Orange on the
Citizens of the Commonwealth**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



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**COMMONWEALTH OF VIRGINIA
RICHMOND
1988**

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REPORT OF THE
JOINT SUBCOMMITTEE STUDYING THE
EFFECTS OF EXPOSURE TO AGENT ORANGE
ON CITIZENS OF THE COMMONWEALTH
TO
THE GOVERNOR AND THE GENERAL ASSEMBLY OF VIRGINIA
RICHMOND, VIRGINIA
JANUARY, 1988

To: The Honorable Gerald L. Baliles, Governor of Virginia
 and
 The General Assembly of Virginia

I. LEGISLATIVE HISTORY OF THE STUDY

In response to the growing concerns of many citizens in the Commonwealth, especially those who were involved in the war in Vietnam, three resolutions, HJR 205, HJR 256 and SJR 141, were introduced during the 1987 Session of the General Assembly calling for studies of the effects of exposure to agent orange on citizens of the Commonwealth. Senate Joint Resolution 141 was approved, thereby establishing this study.

Senate Joint Resolution 141 noted the continuing controversy surrounding the Vietnam War, the extensive use of defoliants/herbicides during that conflict and the lack of appreciation at that time of the possible medical risks from exposure to these defoliants/herbicides. This resolution also recognized the federal government's responsibility for the provision of services to veterans, but it acknowledged the Commonwealth's duty to evaluate "the needs of the victims {of Agent Orange exposure}." The Joint Subcommittee was directed to "make recommendations as to how these victims might be aided by the federal government."

The Joint Subcommittee consisted of two members of the Senate, J. Granger Macfarlane of Roanoke and Frank W. Nolen of New Hope; three members of the House of Delegates, C. Richard Cranwell of Vinton, Jay W. DeBoer of Petersburg and Kenneth R. Melvin of Portsmouth; and two citizens members, Mr. Daniel E. Karnes of Roanoke and Dr. Maurice K. Eggleston of Roanoke. Senator J. Granger Macfarlane served as the chairman and Mr. Daniel E. Karnes served as the vice-chairman.

II. OVERVIEW OF THE CONTROVERSY

The Chemical Composition of Agent Orange

Although the general public acknowledges exposure to Agent Orange as the possible cause of health problems suffered by some Vietnam veterans, the dioxin contained in the Agent Orange is the reputed cause for concern. The term "dioxin" is really a layman's label for the class of toxic compounds which are by-products of a number of chemical processes such as those used to make herbicides, some pesticides, wood preservatives and the antiseptic, hexachlorophene. It should be noted that "dioxins" are never made as commercial products. These compounds always occur as contaminants in the manufactured product or as by-products of the manufacturing process. There are approximately 75 distinct compounds (called isomers) which have the same molecular formula with the atoms in different arrangements that are called "dioxins." "Dioxins" are chlorinated dibenzo-para-dioxins. Most often the term "dioxin" is used to refer to the most toxic of the dioxins, 2,3,7,8-tetrachlorodibenzo-para-dioxin (known as TCDD). TCDD does not vaporize readily and does not dissolve in water to any degree, but is soluble in fats and oils. TCDD does not decompose quickly except at high temperatures and, therefore, persists in the environment for extended periods.

The product known as "Agent Orange" is a mixture of two herbicides - 2,4-D and 2,4,5-T. One of these herbicides, 2,4,5-T, contains dioxin (TCDD) as a contaminant. Prior to 1965, this product contained substantial quantities of dioxin (30 mg/kg or more) (State Legislative Report, Science and Technology Series, The Dioxin Dilemma, V. 8, no. 8, December, 1983). However, the dioxin content was reduced to 0.1 mg/kg by 1972. Agent Orange was used as a defoliant/herbicide in Vietnam from 1965 to 1971. There is apparently some disagreement on the duration of the spraying and some indication that Agent Orange may have been used from as early as 1962 to 1971 or later. The Agent Orange sprayed in Vietnam is alleged to have had an average concentration of dioxin of 2 mg/kg (Virginia Toxic Substances Information, Fact Sheet on Dioxin). Although the figures quoted vary, it appears that 9 to 17.7 million gallons of herbicide including Agent Orange, Herbicide White and Herbicide Blue were sprayed from airplanes in Vietnam to defoliate the trees and expose the enemy as well as destroy their food crops (Virginia Toxic Substances Information, Fact Sheet on Dioxin; Health & Environment, V. 1, No. 5, June 1987; The Richmond News Leader, Monday, January 19, 1987, p. 8; Report by the Comptroller General of the United States, Health Effects of Exposure to Herbicide Orange in South Vietnam Should be Resolved, April 6, 1979).

Exposure to Agent Orange in Vietnam

There is little concrete information available from the Department of Defense on the number or identities of individuals who served in Vietnam and were exposed to Agent Orange because no precise records were kept to cross match the troop movement with the spraying and the potential for exposure varied according to time, geographic location and duties. Indeed, it is often difficult for a Vietnam veteran to state conclusively that he has been exposed to Agent Orange, although many described bare conditions and dead vegetation or the presence of spraying airplanes. With the violence and trauma of war surrounding him on a daily basis, the ground soldier in Vietnam was often oblivious to his exact location. Further, he had no actual notice of possible exposure to a toxic substance. In any case, such matters would have appeared trivial to the ordinary soldier who was praying merely to survive.

The Department of Defense has stated that the most common exposure would have been through skin contact and inhalation of the herbicide. Ingestion of dioxin would have been rare. According to the Department of Defense, the individuals involved in refilling the drums and the actual spraying such as crewchiefs and flight mechanics (the so-called "ranch hands") would have had more possible exposure than others. Many of the crew members who were identified as involved in the operations for spraying Agent Orange have been studied. The results did not indicate any significant increases in chronic disease (Report by the Comptroller General of the United States, Health Effects of Exposure to Herbicide Orange in South Vietnam Should be Resolved, April 6, 1979).

The Effects of Dioxin

Animal studies on the toxicity of dioxin (or TCDD) have been conducted with monkeys, rats, mice, rabbits, hamsters and guinea pigs. These animal studies appear to substantiate that TCDD is a very toxic substance. In fact, a 1986 article in Science stated that TCDD was "one of the most toxic man-made compounds known" (Science 232:497, 1986). However, the susceptibility or sensitivity to dioxin varies considerably from one species to another. In some species, dioxin has been shown to be extremely toxic. For example, relatively small doses cause death, cancer and birth defects in guinea pigs. In other species, (for example, hamsters) it is only slightly toxic. In still others, dioxin is moderately toxic. In some species, dioxins cause cancer and birth defects (Health & Environment Digest, V. 1, No. 5, June 1987). Humans, however, are not subjected to controlled experiments and the extent to which dioxin is toxic to humans is a matter of significant controversy.

In addition to exposure through the spraying of Agent Orange in Vietnam, many people have been exposed to dioxin through their work or their proximity to sprayed areas. In many areas, railroad tracks were sprayed with a herbicide containing dioxin on a regular basis. Some areas have been sprayed to prevent the growth of marijuana and some areas to promote commercial forestry. Over the last forty to fifty years, various industrial accidents or other environmental contaminations with TCDD have resulted in human exposure. In 1949, an explosion in a plant in Nitro, West Virginia, exposed many workers to large quantities of dioxin. Studies of these individuals, reveal a persistence of skin rashes even 30 years later, reports of sexual dysfunction and reduced sensory sensitivity.

In July of 1976, an explosion in the ICMESA Chemical Plant in Italy released a cloud of chemicals including TCDD which was precipitated on the town of Seveso. This accident was said to have "exposed the largest number of people to the highest concentration of TCDD ever recorded" (Science, June 19, 1981). Within a day or two, there were many reports of poisoning, particularly skin rashes, headaches, breathing problems, etc. (Nature, V. 262, August 19, 1976). The Italian government and investigators from around the world have been studying the people of Seveso. Immediately after the contamination, increased numbers of spontaneous abortions and nervous disorders were reported. However, no conclusions about the documented health effects of dioxin have been reached, although concern has been voiced by experts about the long term effects on the people of Seveso (Nature, V. 262, August 19, 1976).

Other contamination has occurred in the United States. For example, in New York State, Love Canal and Hyde Park were contaminated by the large quantities of chemicals which were dumped by the Hooker Chemical Company. The Tittabawassee River was contaminated by the effluents from the Midland, Michigan plant of DOW Chemical Company. Times Beach and other towns in Missouri were contaminated through the spraying of a mixture of dioxin-containing wastes and oil on the roads and other paved areas. In Oregon and other areas, the herbicide 2,4,5-T was sprayed in March and April for some years by the U.S. Forest Service and the Bureau of Land Management to increase forest productivity. The EPA reported increased miscarriages in June and July following these sprayings (State Legislative Report, Science and Technology Services, The Dioxin Dilemma, V. 8, No. 8, December, 1983).

Some experts are expressing concern about the increasing presence of dioxins. It should be noted that waste incineration also produces dioxin as a by-product and that dioxin was recently found in the sludge from a paper plant in Wisconsin. These sludges were being applied to land. The University of Minnesota School of Public Health conducted a study which addressed human exposure to dioxins through the food chain and noted that exposure through food was much more important than exposure through inhalation or skin (Health & Environment Digest, V.1, No.5, June 1987).

In the human, the primary symptom of dioxin toxicity is a dermatitis known as chloracne. TCDD also causes nerve damage, muscle aches, respiratory and cardiovascular symptoms and disorders, fatigue, and liver, pancreas and kidney conditions. However, no immediate deaths have been reported following the industrial accidents and the follow-up studies of the exposed people have been contradictory in their findings on the effects of dioxin on people. For example, studies conducted by the American Medical Association, the Centers for Disease Control, the Veterans Administration and others did not find conclusive evidence

for dioxin as a carcinogen or teratogen in humans (Virginia Toxic Substances Information, Fact Sheet on Dioxin; Health & Environment Digest, V. 1, No. 5, June 1987). And yet, there are studies that indicate that dioxin exposure depresses immunity and one of the results of depressed immunity can be cancer (JAMA 255: 2031, 1986). There are also studies that indicate that dioxin exposure increases the incidence of soft tissue sarcoma (Br. J. Cancer 43: 169, 1981; The Lancet 2/8511: 868, 1986). On the other hand, a study conducted by the USAF School of Aerospace Medicine for the Surgeon General "showed a relative paucity of overall cancer but an excess of digestive disorder deaths, both statistically nonsignificant. No soft tissue sarcoma deaths were detected in either group" (Project Ranch Hand II, An Epidemiologic Investigation of Health Effects in Air Force Personnel Following Exposure to Herbicides). In contrast, the National Cancer Institute reported that exposure to herbicides increased the possibility of contracting a rare form of non-Hodgkin's lymphoma by 8 times in farmers who were exposed for more than 20 days per year (Newsweek, September 8, 1986). These studies and other conflicting reports render it impossible to provide a definitive scientific analysis of the effects of Agent Orange on humans.

III. WORK OF THE JOINT SUBCOMMITTEE

The Joint Subcommittee conducted five meetings, three of which were public hearings. During its first meeting, the Joint Subcommittee received a technical briefing from its staff, as well as presentations from Dr. John R. Taylor, a physician with McGuire Veterans Administration Medical Center, Dr. Robert Stroube, Deputy Commissioner of Health, and Dr. Khizar Wasti of the Bureau of Toxic Substances Information, Virginia Department of Health.

It was pointed out that the latency of some of the longitudinal studies of the effects of Agent Orange was too short to validate increases in certain chronic health conditions such as cancer. Such studies are very difficult because they are always retrospective and it is likely that everyone has received some exposure to dioxin or other toxins. Some of the issues which must be addressed by such studies are: What criteria should be used to identify the exposed group? Can sufficient numbers of individuals be identified to provide validity? What dosage should be established as the threshold? And how can a second, control group with characteristics similar to the exposed group, but without exposure to the toxin be identified? In addition, many factors must be controlled for, such as battle stress.

The experts stated that tests to establish tissue levels of dioxin in blood and fat are relatively new technology; that chloracne is seen as an effect from exposure to chlorinated hydrocarbons with benzene rings; that the target symptom of exposure to dioxin is chloracne which occurs in individuals with no previous history of acne and on areas of the body which are not usually affected; that the

Veterans Administration provides treatment for "service-related" illnesses; that an exposure history is obtained from veterans claiming health effects from Agent Orange to the extent possible and that there are no cases of chronic health effects from Agent Orange which have been conclusively proven according to medical standards.

Because the focus of the Joint Subcommittee was on obtaining comments from citizens who served in Vietnam as well as statements from officials and experts, all of the public hearings were held in the evening and locations at the three corners of the Commonwealth were chosen for the convenience of the citizens (Portsmouth, Arlington and Roanoke). All of the public hearings were well-attended and attracted speakers who represented Vietnam veterans as a class and individuals who felt that they had suffered ill effects from exposure to Agent Orange.

Many of the speakers described serious or severe health problems such as cancer, disfiguring chloracne, porphyria cutanea tarda, depression, digestive disorders, fatigue, post-traumatic stress disorder and respiratory problems. A number of the individuals appearing before the Joint Subcommittee stated that their wives had had miscarriages or that they had had stillborn children or children with birth defects, which they attributed to the effects of Agent Orange. Some recounted difficulties in their personal lives resulting from their poor physical and mental health such as inability to hold a job and divorce.

Some individuals contrasted the reception given veterans of World War II on returning to the United States and the reception accorded Vietnam veterans at the height of the antiwar movement in the 1960's. In many cases, the speakers had been very young when they were sent to Vietnam and made statements indicating that the trauma of this experience would always be with them. Few were bitter towards the antiwar demonstrators or those who could not or did not serve.

In contradiction to the federal contention that most exposure to Agent Orange would have been through inhalation and skin contact, many of the speakers alleged that they had eaten the native food, drunk the water and slept in the open areas which had been sprayed for days without having access to bathing facilities. Several mentioned playing with the spray by squirting it on others and being squirted. Some alleged that the foot soldier received more exposure than the ranch hands who conducted the spraying operations, because the foot soldier lived in and off the sprayed land, whereas the ranch hands went home to showers, clean beds and uncontaminated food and water.

Although a few individuals praised the work of the Veterans Administration, a number of the speakers were disillusioned with the efforts of the federal authorities, particularly the Veterans Administration. Some expressed their bitterness about the lack of concern on the part of the Veterans Administration and the unresponsiveness of the federal government in general to the plight of the Vietnam veteran. It was alleged that the response of the medical personnel of the Veterans Administration was frequently cavalier and disinterested because there is an official presumption that none of the health problems described by the Vietnam veterans can be attributed to Agent Orange except chloracne. They stated their fears about the future and what it could bring in terms of health problems for them and for their children.

Many of those appearing before the Joint Subcommittee viewed the attitude of the federal government and the Veterans Administration as callous disregard for the welfare of those who had served their country in its time of need or as "stonewalling" which was intended to avoid the truth in order to limit the federal government's liability. Many speakers had lost faith in the integrity of the federal government and had developed feelings of alienation and isolation from the mainstream of America. A majority of the speakers had come to believe that the only way to initiate any positive response from federal authorities is to mobilize the support of the state legislatures. These individuals urged the Commonwealth to become involved in a direct way with the controversy surrounding Agent Orange and to provide services to the Virginia veterans.

A number of officials in local chapters of Vietnam Veterans of America, as well as Ms. Mary Stout, the president of the national organization, appeared before the Joint Subcommittee at the various public hearings. These individuals emphasized the federal government's lack of disclosure to the soldier in Vietnam about the possible effects of Agent Orange even after the potential health risks were revealed, the lack of federal response to the health problems being experienced by many Vietnam veterans and their perception of the research on the effects of dioxin as being flawed because of alleged defects in the choices of control groups, the small numbers in the study groups, the utilization of short latency periods or an alleged deliberate cover-up of the facts.

In support of the allegation that efforts were being made to prevent disclosure of the facts, several mentioned the Veterans Administration study of marines who participated in ground operations in Vietnam which found much higher incidences of certain kinds of cancer among this group. These individuals maintained that the results of this study had been withheld by Veterans Administration officials and had been leaked to the press in September of this year. It was stated that since presumptive compensation is awarded to former POWs who

contract multiple sclerosis because of the proven higher incidence of this disease among this population, that there is ample evidence to justify presumptive compensation for non-Hodgkin's lymphomas and other disorders among Vietnam veterans. It would be a matter of simple compassion, these individuals noted, for the federal government to provide presumptive compensation for certain Vietnam veterans. It was suggested that determinations of eligibility for such presumptive compensation could be vested in a scientifically responsible, objective body.

The Joint Subcommittee also received testimony from one civilian woman who spent a year in Vietnam with the Red Cross. She stated that very limited research has been conducted on the women and civilians who served their country in Vietnam. She presented the Joint Subcommittee with a copy of a study of the women who served in Vietnam which was conducted as part of the masters degree work of Ms. Sharon Kay Rice-Grant at California State University. This study documented a number of health problems among the women who were in Vietnam during the war, including increased numbers of stillbirths and miscarriages and birth defects among their children. This speaker alleged that the civilians who served in Vietnam need help and that the federal government is not listening.

In addition to the registered speakers, several invited speakers appeared before the Joint Subcommittee. Dr. Lawrence B. Hobson, M.D., Acting Director, Agent Orange Projects Office, Veterans Administration Central Office, very kindly consented to participate in the Arlington hearing. Dr. Hobson stated that the Veterans Administration has been involved with the study of Agent Orange since 1978. The federal government established the Agent Orange Registry in 1978. Veterans who applied for inclusion in the Registry were given a complete examination and laboratory work-up. The V.A. did provide treatment for any individual identified as needing such care through this examination, although authorization by law was not provided to the V.A. for these services until 1981. However, in any case in which a Vietnam veteran felt that the condition might be attributable to Agent Orange, treatment was provided. Many have received such care, according to Dr. Hobson.

Dr. Hobson stated that since the early days of involvement in Agent Orange, the federal government has funded approximately 80 completed studies and that approximately 70 studies are still in progress. This effort has cost the federal government between \$96 to \$100 million. Dr. Hobson noted that the level of the dose or exposure and the duration of exposure to a toxin are important. These can be controlled in animal studies; however, in humans, exposure is inadvertent. The methodology for studying human exposure is retrospective and epidemiological. He said that such studies are not as scientifically valid as would be desirable because it is impossible to prove a negative. Dr. Hobson described the effects in humans of

high level exposure to Agent Orange or dioxin as nausea, weakness, trembling, etc., i.e., the symptoms of intoxication. He noted that Australian and American studies have not demonstrated that exposure has caused birth defects. He stated that if the exposure in Vietnam was known, the studies could be better. However, the records were not structured in this way. In fact, Dr. Hobson stated that there was no comprehensive list of the individuals who served in Vietnam, because many of the records were kept in Saigon and the precipitous exit resulted in many of the records being destroyed.

The Center for Disease Control studies of dioxin levels did not demonstrate levels of dioxin in Vietnam veterans which are consistently above those of individuals who were not in Vietnam. He indicated that perhaps the consideration should be "the Vietnam experience" rather than exposure to Agent Orange. Dr. Hobson described some of the V.A. studies as utilizing "proportional mortality" as a methodology. In this type of study, the causes of death among various identifiably different populations are compared to determine if a higher proportional mortality ratio exists for one group than another.

He noted that the marine cancer study did not indicate an increase in numbers of deaths, but an increase in the proportion. He acknowledged that the V.A. had been charged with concealing this data. He stated that it was the V.A.'s practice to wait until all studies had gone through the process of peer review before making public announcements about the findings and that there was no effort on the part of the V.A. to conceal this data. He said that the Agent Orange Science Panel was a nonpolitical, interagency group and that there were a number of other groups in this category such as the Committee for Environmental Hazards. Dr. Hobson suggested that the state could assist in resolving this issue by disseminating literature such as that in the Synopsis of Scientific Literature on Phenoxy Herbicides and Associated Dioxins. He felt that educational institutions, civic groups and other organizations could assist in this dissemination. When asked why the V.A. used only chloracne occurring within three months of service as conclusive evidence of exposure to Agent Orange, Dr. Hobson replied that no other conditions have been demonstrated to occur among Vietnam Veterans at a higher rate than among other populations.

Mr. Wayne P. Wilson, Executive Director of the New Jersey Agent Orange Commission, also appeared as an invited speaker. Mr. Wilson said that New Jersey and Massachusetts had received acclaim for their work. He felt that he had heard the federal version and that he did not feel that the federal government's version was consistent with what New Jersey microbiologists, epidemiologists, toxicologists, etc. knew about this issue. Mr. Wilson emphasized that the Veterans Administration doesn't seem to understand that the Vietnam veterans want an answer on this matter. He noted that the veterans feel strongly that they were sent

to defend this country and now they want some answers. This, he said, is the reason more and more Vietnam veterans are turning to the state legislatures and commissions to fill the void. Mr. Wilson said that New Jersey is searching for the truth in this matter and is not interested in giving the federal government or the Veterans Administration a poor image. The New Jersey Commission is a state agency which has the trust of the Vietnam veterans and this charge is taken seriously, Mr. Wilson stated. He also indicated that New Jersey and Massachusetts are not going to be able to resolve this issue by themselves. He did not believe that additional research studies would be beneficial; however, he strongly urged that Virginia establish, with a small investment, an Agent Orange Council/Commission with full-time staff. He indicated that there were innovative, creative contributions which could be made by Virginia in cooperation with the other states which have Agent Orange agencies. He stated that there was a need to monitor the status of the class action suit and the decisions coming out of Brooklyn and to provide up-to-date factual information to veterans. New Jersey, he noted, would like to share with Virginia and would appreciate Virginia's assistance in finding the truth. A very important aspect of any state effort, Mr. Wilson declared, would be to provide fair, open-minded, compassionate treatment for the veterans. Mr. Wilson described some of his activities as: weekly meetings with the state VVA, urging passage of national legislation on service connected compensation for Vietnam veterans, and assisting veterans in applying for benefits from the V.A. and the settlement fund. The pressures on the federal authorities for providing equitable compensation for the veterans is growing according to Mr. Wilson.

Mr. Wayne Mansulla, an attorney with the firm of Ashcraft and Gerel, was an invited speaker who has been involved with the Agent Orange litigation since 1979. Mr. Mansulla stated that the question related to the use of chloracne as the only conclusive evidence of exposure was a valid one and that porphyria cutanea tarda has also been conclusively proven to be caused by exposure to dioxin. Mr. Mansulla said that the Veterans Administration is making a mistake by using symptoms of acute exposure, because the exposure in Vietnam was chronic exposure which would have a longer latency for causing health problems. He stated that the Ranch Hand Study was not as relevant as the Veterans Administration and the Air Force would like everyone to believe, because the ranch hands were able to bathe and sleep in uncontaminated conditions and did not eat off the land. In Mr. Mansulla's opinion, the ranch hands were not exposed to Agent Orange under the same conditions as the ground soldiers who ate, bathed and slept in the country.

The government does not want to accept the responsibility for the claims of the veterans because of the cost of caring for the large numbers of individuals who might be affected according to Mr. Mansulla. He noted that it was ironic that the government's case was still on appeal at the time that the study of the marines

was completed and yet these results were not announced until April 2, 1987. He also emphasized the actions taken by the Environmental Protection Agency to protect United States citizens from exposure to dioxin in 1975 and 1979.

Mr. Mansulla described the settlement fund in the class action suit as consisting of only \$125 million. He alleged that \$13 million had already been spent for administrative costs and that the distribution plan was disgraceful as the smallest award is for death and total disability would only result in a payment of approximately \$12,000 and no other awards would be made.

Mr. Joseph V. Bangert, Director of the Massachusetts Agent Orange Commission, also appeared before the Joint Subcommittee. Mr. Bangert urged Virginia to assist the Vietnam veterans. He stated that he had served in Vietnam as a marine and is a member of the Board of the VVA. He indicated that there were many activities which a state could undertake to assist veterans. Examples of these activities would be to provide timely information to veterans about the settlement and help with the documentation to apply for the funds. Mr. Bangert also suggested that legislation exempting the settlement funds for purposes of determining eligibility for public assistance programs would be appropriate. Mr. Bangert talked about the study of the marines who served in Vietnam and stated that it was important for those who served to know that the study had indicated a 110% increase in the incidence of non-Hodgkin's lymphomas so that these individuals would be aware of the need to see a doctor in the event of any signs of such disease. Mr. Bangert stated that he would like to see Virginia join the ranks of the states who are assisting the veterans. He described some of the activities in Massachusetts and noted that Massachusetts has established health centers and veterans centers for the Vietnam veterans. He also talked about the Massachusetts study of the effects of Agent Orange and the V.A.'s objections to this study and warnings to veterans not to participate.

The Joint Subcommittee was honored that Admiral Elmo R. Zumwalt Jr. agreed to appear at the Roanoke hearing. Admiral Zumwalt stated that the political history of an issue is often very different from the scientific development of that issue and noted, as examples of this dichotomy, the atomic testing and the public acknowledgement of the effects of radiation and smoking and the development of the warning on cigarette packages. He said that he has a personal interest in the issue of Agent Orange because his oldest child, Elmo R. Zumwalt III, served in Vietnam and has two kinds of lymphoma which he believes to be the result of his exposure to Agent Orange. Admiral Zumwalt also acknowledged his interest and involvement in this issue because he was in command and made the decision to use the defoliant. He feels a special responsibility for those who suffer because of

his authority during the Vietnam conflict. However, he stated that he is convinced that thousands of lives were saved by the use of Agent Orange even though there are hundreds who are undoubtedly paying the price now of the use of the defoliants.

At the time when Admiral Zumwalt was ordering the spraying of the defoliant, he did not have the luxury of studying the effects of the chemical before he made the decision to use it. He also did not have the benefit of any notice that health effects could result from its use. In fact, he had been informed that Agent Orange was not harmful to animal life. Admiral Zumwalt noted that, for some years, there was no concern about any possible long term effects on the soldiers. Vietnam veterans and those in contact with them then began to suspect that there were reasons to be apprehensive because of apparent increases in cancers and birth defects.

Admiral Zumwalt stated that, even though there is conflicting data on this matter, he feels that the more recent studies have proven that there are health effects from exposure. He noted the study of the Kansas farmers which was published in 1986 by Sheila Hoar (Journal of the American Medical Association, September 5, 1986, Vol. 256, No. 9) which suggests that exposure to 2,4-D (one of the components of Agent Orange) increases the risk of cancer. He also mentioned the Veterans Administration study of marines which found a 110% greater incidence of non-Hodgkin's lymphoma as well as statistically significant increases in lung cancer among the marine veterans who served in Vietnam. Admiral Zumwalt stated that he believes that the time has clearly come for compensatory damages and that the state's efforts will assist in dealing with this very difficult problem.

During the course of the study, the Joint Subcommittee also reviewed many newspaper and magazine articles and studies of the effects of Agent Orange as well as hearing from a number of experts. In addition, a final work session was held in which the following findings and recommendations were made.

IV. FINDINGS AND RECOMMENDATIONS

The Joint Subcommittee recognizes that the Vietnam war was unpopular and controversial and that many of those who served were among the very young and poor. The Joint Subcommittee also recognizes that the Vietnam war and the demonstrations against it were played out before the public on nightly television news. Television viewers in the late 1960's and early 1970's watched these daily installments of combat along with recitations of body counts contrasted with media coverage of demonstrations against the war which sometimes resembled revolution. The Joint Subcommittee believes that for these reasons many individuals wanted to

place the Vietnam war behind them. However, at this time, there is, in the opinion of the Joint Subcommittee, a new interest in objective assessments of the circumstances, understanding the issues and, more particularly, in finding ways to assist, recognize and honor those who served.

Many Vietnam veterans do not believe that federal officials have been objective in their evaluations of the health effects of dioxin and herbicides because of the potential for enormous costs in providing health care to the affected individuals. In the view of the Joint Subcommittee, it is incredible that, with all of the paper work required by federal authorities, particularly the military establishment, no comprehensive list of those who served or precise data on the locations and frequency of the herbicide spraying are available. It would appear that, in this age of computers and data banks, an effort could be made to compile this data and that such a compilation would contribute significantly to the credibility of the federal efforts and the resolution of the Agent Orange controversy.

From the testimony and letters received during the study, the Joint Subcommittee believes there is substantial evidence that many Vietnam veterans are suffering from terminal illnesses or long-term chronic health problems which could have resulted from their exposure to Agent Orange. Because of their frustration with the efforts of the federal government, the veterans have turned to the states for assistance. The Joint Subcommittee believes that Virginia should help these individuals as much as possible through providing reasonable, affordable services. However, in the opinion of the Joint Subcommittee, the duty of the federal government to the Vietnam veterans is primary and must be acknowledged in order to prevent any further injustice to these men and women. Equity demands that the federal government exert every effort to alleviate the suffering of the Vietnam veterans. In this regard, the Joint Subcommittee believes that the time has come for the federal government to acknowledge its responsibility to Vietnam veterans and develop a fair solution to the Agent Orange issue.

For these reasons, the Joint Subcommittee recommends that:

1. The General Assembly memorialize the Congress of the United States to grant presumptive compensation to Vietnam veterans with conditions which have been proven more prevalent among this group such as chloracne, porphyria cutanea tarda, non-Hodgkin's lymphoma and lung cancer and to allow such compensation for additional conditions as the evidence accumulates;

2. The General Assembly also memorialize the Congress of the United States to amend the Social Security Act to provide an exemption for funds awarded to Vietnam veterans pursuant to the class action suit for the purposes of determining eligibility for federally established public assistance programs;

3. The Virginia Congressional Delegation be urged to support equitable compensation for Vietnam veterans who are suffering from the effects of Agent Orange and to mandate that the Veterans Administration implement P.L. 98-542 as intended by Congress;

4. The duties of the Virginia Division of War Veterans Claims be revised to include the monitoring of the results of legal suits and Congressional actions related to Agent Orange and the provision of information to Vietnam veterans on Agent Orange and the availability of the screening for Agent Orange through the Veterans Administration;

5. The Director of the Virginia Division of War Veterans Claims be provided funds to join and attend the National Conference of State Agent Orange Programs;

6. The Director of the Bureau of Toxic Substances Information in the Department of Health be provided the funds to attend the annual Conference on Dioxin; and

7. The Congenital Anomalies Reporting and Education System and the Cancer Registry be revised to mandate that the Department of Health require the reporting of information on exposure to Agent Orange.

V. CONCLUSION

The Joint Subcommittee understands that laboratory experiments have demonstrated a wide variety of reactions to dioxin in different animals and that there is no consistency in the results of these studies. In the opinion of the Joint Subcommittee, such animal studies have shed little, if any, light on the effects of dioxin on humans. In addition, studies of individuals exposed to dioxin in industrial accidents and through environmental contamination do not provide conclusive scientific evidence to substantiate that dioxin creates chronic health problems. However, some of the follow-up studies of exposed individuals do not appear to be highly accurate because they were not performed with great care or the data obtained was incomplete.

The Joint Subcommittee feels that it is important to note that people are exposed to many possible toxins in this era. Therefore, it is difficult for scientists

NOTE: Budget amendments for \$20,750 were introduced and approved to support the implementation of recommendations 4 and 5.

to attribute adverse effects to exposure to one particular toxin. Further, the human body is a conglomerate of complicated systems, processes and reactions and each person is different. One person may have a strong reaction to a substance, whereas another person will react only slightly. For example, a simple bee sting can and will kill an individual who is highly sensitive to the bee's toxin.

In any case, in the opinion of the Joint Subcommittee, common sense would lead to the conclusion that exposure to an extremely toxic substance must have some profound effects on some of the exposed animals and humans. Statistically significant numbers are not important to the individuals who are affected.

The Committee noted that many of the individuals appearing before it were pleading for help. The Joint Subcommittee acknowledges that the majority of the speakers were eloquent, angry and frustrated by a situation which they viewed as unconscionable. Their bitterness towards the federal government and the Veterans Administration was displayed on a number of occasions. The Joint Subcommittee agrees that the evidence for Agent Orange causing an increase in chronic health problems among individuals who were exposed in Vietnam has gained enough significance to justify federal compensation of those who suffer from certain conditions and that some mechanism should be established to provide an objective, medically valid review of each case for the purpose of eligibility for compensation.

The Joint Subcommittee wishes to acknowledge the assistance of Mr. Elmo R. Zumwalt III and to express its thanks to the many citizens, public officials and experts who appeared before it, particularly Admiral Elmo R. Zumwalt Jr. and Mr. Carlos Martin.

Respectfully submitted,

J. Granger Macfarlane, Chairman

Daniel E. Karnes, Vice-Chairman

C. Richard Cranwell

Jay W. DeBoer

Maurice K. Eggleston

Kenneth R. Melvin

Frank W. Nolen

APPENDICES

A P P E N D I X A
Enabling Resolution
and
Bibliography

SENATE JOINT RESOLUTION NO. 141

Requesting a joint subcommittee to study the effects of exposure to agent orange on citizens of the Commonwealth.

Agreed to by the Senate, February 4, 1987

Agreed to by the House of Delegates, February 25, 1987

WHEREAS, the war in Vietnam continues to be the source of great controversy fifteen years after its conclusion, and veterans of this era have borne the brunt of the conflict; and

WHEREAS, during the war, attempts were made to expose enemy forces through the use of powerful chemical defoliants and herbicides; and

WHEREAS, many U. S. personnel were exposed to these defoliants and herbicides without appreciation of the medical risks posed by handling, breathing or otherwise coming into contact with these chemicals; and

WHEREAS, in some instances it has taken years for the physiological and psychological results of exposure to these toxins, generally referred to as "agent orange," to manifest themselves in their victims; and

WHEREAS, the physical, financial, emotional, social and personal damage inflicted upon Virginians as the result of their exposure to agent orange during service to their country in Vietnam remains largely unknown; and

WHEREAS, although the federal government, through Public Law 97-72, is providing health care for Vietnam veterans, this care has generally been evaluated as not meeting their needs, and no services are provided to the families of these veterans; and

WHEREAS, while it is the consensus of this General Assembly that the responsibility for the provision of all these services rests with the federal government, it is the duty of this Commonwealth to address in the interim some of the needs of these victims; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That a joint subcommittee study the effects which exposure to "agent orange" and other dioxins has had on citizens of the Commonwealth in order to make recommendations as to how these victims might be aided by the federal government.

The joint subcommittee shall consist of seven members. Three shall be appointed by the Speaker of the House of Delegates: two from the House Committee on Health, Welfare and Institutions and one from the House at large. Two shall be appointed by the Senate Committee on Privileges and Elections: one from the Senate Committee on Rehabilitation and Social Services and one from the Senate at large. Two shall be citizen members who are veterans of the Vietnam War, one to be appointed by the Speaker, and one to be appointed by the Senate Committee on Privileges and Elections.

The joint subcommittee shall complete its work by November 15, 1987.

The indirect costs of this study are estimated to be \$10,860; the direct cost of this study shall not exceed \$5,040.

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APPENDIX B

Legislation implementing Subcommittee Recommendations

1 D 1/23/88 Szakal T 1/24/88 smw

2 SENATE BILL NO. HOUSE BILL NO.

3 A BILL to amend and reenact §§ 32.1-69.1 and 32.1-70 of the Code of
4 Virginia, relating to information on service in Vietnam and
5 possible exposure to agent orange.

6

7 Be it enacted by the General Assembly of Virginia:

8 1. That §§ 32.1-69.1 and 32.1-70 of the Code of Virginia are amended
9 and reenacted as follows:

10 § 32.1-69.1. Virginia Congenital Anomalies Reporting and
11 Education System.--A. In order to collect data to evaluate the
12 possible causes of birth defects, improve the diagnosis and treatment
13 of birth defects and establish a mechanism for informing the parents
14 of children identified as having birth defects and their physicians
15 about the health resources available to aid such children, the
16 Commissioner shall establish and maintain a Virginia Congenital
17 Anomalies Reporting and Education System using data from birth
18 certificates filed with the State Registrar of Vital Records and data
19 obtained from hospital medical records. The chief administrative
20 officer of every hospital, as defined in § 32.1-123, shall make or
21 cause to be made a report to the Commissioner of any person under two
22 years of age diagnosed as having a congenital anomaly. This report
23 shall include information on parental service in Vietnam, the duration
24 of the service and possible exposure to agent orange. The
25 Commissioner may appoint an advisory committee to assist in the design
26 and implementation of this reporting and education system with

1 representation from relevant groups including, but not limited to,
2 physicians, geneticists, personnel of appropriate state agencies,
3 handicapped persons and the parents of handicapped children.

4 B. With the assistance of the advisory committee, the Board
5 shall promulgate such rules-and-regulations as may be necessary to
6 implement this reporting and education system. These rules-and-
7 regulations may include determinations of specific genetic disorders
8 to be monitored, the scope of the information to be collected,
9 appropriate mechanisms for follow-up, relationships between the
10 reporting and education system and other agencies and mechanisms for
11 review and evaluation of the activities of the system. The reporting
12 and education system may collect the name, address, sex, race, and any
13 other information, determined to be pertinent by the Board, regarding
14 persons reported to have birth defects.

15 § 32.1-70. Records of hospitals and clinics may be supplied to
16 Commissioner; statewide cancer registry.--A. Each hospital and clinic
17 may make available to the Commissioner or his agents abstracts of
18 their records of patients having malignant tumors or cancers. Such
19 abstracts may include the name, address, sex, race and any other
20 pertinent identifying information regarding each such patient and
21 shall include service in the Vietnam War, the duration of service and
22 possible exposure to agent orange or other defoliants .

23 B. From such abstracts the Commissioner shall establish and
24 maintain a statewide cancer registry. The purpose of the statewide
25 cancer registry shall include but not be limited to:

26 1. Determining means of improving the diagnosis and treatment of
27 cancer patients.

28 2. Determining the need for and means of providing better

1 D 1/23/88 SZAKAL C 1/24/88 neg

2 SENATE BILL NO. HOUSE BILL NO.

3 A BILL to amend and reenact § 2.1-129 of the Code of Virginia,
4 relating to services to Vietnam Veterans.

5

6 Be it enacted by the General Assembly of Virginia:

7 1. That § 2.1-129 of the Code of Virginia is amended and reenacted as
8 follows:

9 § 2.1-129. Division of War Veterans' Claims.--The Attorney
10 General is hereby authorized, with the approval of the Governor, to
11 establish, equip and operate such offices for a Division of War
12 Veterans' Claims as may be necessary and desirable to render adequate
13 assistance to veterans of the armed forces of the United States, their
14 widows, orphans and dependents, domiciled in Virginia, in matters of
15 rehabilitation and in the preparation, presentation and prosecution of
16 all lawful claims by, or on behalf of, such veterans, their widows,
17 orphans and dependents, to obtain the benefit of their rights and
18 privileges under various federal, state and local laws enacted for
19 their benefit. For these purposes the Attorney General is authorized
20 to employ such personnel as may, in his judgment, be necessary for the
21 proper operation of such offices and for the proper discharge of the
22 duties and functions of such Division; the compensation of such
23 personnel to be determined by the Attorney General with the written
24 approval of the Governor.

25 Such offices shall be so located as to render the service of the

1 Division conveniently available to such veterans, their widows,
2 orphans and dependents. Appropriate areas shall be assigned from time
3 to time for each office. The various localities in each such area
4 shall be visited by a representative attached to such office, at such
5 intervals as may be necessary and desirable to provide adequate
6 service for the veterans, their widows, orphans and dependents
7 domiciled therein. In the event that either (i) a home or homes for
8 aged or infirm veterans or (ii) a state veterans' cemetery or
9 cemeteries are established pursuant to § 9-86, the Division of War
10 Veterans' Claims shall be responsible for the control and operation of
11 such home or homes and cemetery or cemeteries.

12 In addition to its other duties, the Division shall (i)
13 disseminate literature and information on Agent Orange to Vietnam
14 Veterans in the Commonwealth; (ii) establish a mechanism for informing
15 Vietnam Veterans about the availability of free screening for exposure
16 to Agent Orange in Veterans Administration facilities; (iii) develop
17 cooperative relationships with other organizations for the purpose of
18 disseminating literature and information on Agent Orange to Vietnam
19 Veterans and their families; (iv) monitor congressional actions
20 related to Vietnam Veterans and exposure to Agent Orange and the
21 developments in class action suits; and (v) join and attend the
22 National Conference of State Agent Orange Programs.

23 Upon appropriation to the Division of funds necessary to acquire
24 and develop a state veterans' cemetery, the Division shall proceed
25 forthwith to make application to the United States Veterans
26 Administration for available fifty percent matching funds pursuant to
27 Public Law 98-223 (38 U.S.C. 1008, State Cemetery Grant Program).

28

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1 D 1/24/88 Szakal T/1/25/88 smw

2 SENATE JOINT RESOLUTION NO.....

3 Memorializing Congress to resolve the issue related to exposure to
4 Agent Orange among Vietnam veterans.

5

6 WHEREAS, the Vietnam War was unpopular and controversial and many
7 of those who served were among the very young and poor; and

8 WHEREAS, these individuals frequently feel that they were "raised
9 in the United States, but grew up in Vietnam"; and

10 WHEREAS, the trauma of their experience in Vietnam still elicits
11 emotional responses from most Vietnam Veterans; and

12 WHEREAS, between 9 and 17.7 million gallons of herbicide
13 including Agent Orange, Herbicide White and Herbicide Blue were
14 sprayed from airplanes in Vietnam to defoliate the trees and expose
15 the enemy as well as destroy their food crops; and

16 WHEREAS, Agent Orange contains a mixture of two herbicides, one
17 of which contains the dioxin, TCDD; and

18 WHEREAS, TCDD has been called "one of the most toxic man-made
19 compounds known"; and

20 WHEREAS, laboratory experiments have demonstrated a wide variety
21 of reactions to dioxin in different animals and there is no
22 consistency in thr results of these studies; however, relatively small
23 doses of dioxin cause death, cancer and birth defects in some species
24 of animals; and

25 WHEREAS, studies of individuals exposed to dioxin in industrial

1 accidents and through environmental contamination do not provide
2 conclusive scientific evidence to substantiate that dioxin creates
3 chronic health problems; and

4 WHEREAS, it must be understood, however, that such longitudinal
5 studies may not be highly accurate because the latency period was not
6 long enough to show chronic health effects and the data was
7 incomplete; and

8 WHEREAS, the federal government has funded approximately 80
9 completed studies and at this time, approximately 70 studies are stil.
10 in progress; and

11 WHEREAS, one of the problems encountered by the federal
12 government in these studies is that there is no comprehensive list of
13 those that served because many of the records were stored in Saigon
14 and were destroyed in the precipitous departure; and

15 WHEREAS, several researchers and the National Cancer Institute
16 have reported that exposure to herbicides increases the possibility of
17 contracting a rare form of non-Hodgkin's lymphoma; and

18 WHEREAS, soft tissue sarcoma, porphyria cutanea tarda, digestive
19 disorders and lung cancer have been reported to occur at increased
20 rates among those exposed to herbicides; and

21 WHEREAS, common sense would lead to the conclusion that exposure
22 to an extremely toxic substance must have some profound effects on
23 some of the exposed animals and humans; and

24 WHEREAS, although they served their country when needed, Vietnam
25 veterans were made to feel unwanted on returning home and have never
26 been accorded the respect and gratitude that they deserve; and

27 WHEREAS, many Vietnam veterans are suffering from terminal
28 illnesses or long-term chronic illnesses which, in all probability,

1 resulted from their exposure to Agent Orange; and

2 WHEREAS, many Vietnam veterans are pleading for help; they are
3 eloquent, angry and frustrated by a situation they view as
4 unconscionable; and

5 WHEREAS, the Joint Subcommittee Studying the Effects of Agent
6 Orange on Citizens of the Commonwealth agrees that the evidence for
7 Agent Orange causing an increase in chronic health problems among
8 those who were exposed in Vietnam has gained enough significance to
9 justify federal actions to compensate those who suffer from certain
10 conditions and that a mechanism should be established to provide an
11 objective, medically valid review of each case for the purpose of
12 eligibility for compensation; now, therefore, be it

13 RESOLVED by the Senate, the House of Delegates concurring, That
14 the Congress of the United States is hereby memorialized to grant
15 presumptive compensation to Vietnam veterans with conditions which
16 have been proven more prevalent among this group such as chloracne,
17 porphyria cutanea tarda, non-Hodgkins lymphoma and lung cancer and to
18 allow such compensation for additional conditions as the evidence
19 accumulates. In addition, the Congress of the United States is
20 requested to amend the Social Security Act to provide an exemption for
21 funds awarded pursuant to the class action suit for the purposes of
22 determining eligibility for federally established public assistance
23 programs; and, be it

24 RESOLVED FURTHER, That the Clerk of the Senate of Virginia shall
25 transmit copies of this resolution to the Speaker of the United States
26 House of Representatives, the President of the Senate of the United
27 States, and the members of the Virginia Delegation to the United
28 States Congress that they may be apprised of the sense of the Virgini

1 General Assembly in this matter.

2

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APPENDIX C

Letter to Virginia Congressional Delegation

COMMONWEALTH OF VIRGINIA

J. GRANGER MACFARLANE
21ST SENATORIAL DISTRICT
CITY OF ROANOKE
TOWN OF VINTON
SOUTHWESTERN AND EASTERN
ROANOKE COUNTY
P. O. BOX 201
ROANOKE, VIRGINIA 24002



COMMITTEE ASSIGNMENTS:
AGRICULTURE, CONSERVATION
AND NATURAL RESOURCES
COMMERCE AND LABOR
LOCAL GOVERNMENT
TRANSPORTATION

SENATE

April 6, 1988

The Honorable John W. Warner
United States Senate
421 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Warner:

On behalf the Joint Subcommittee Studying the Effects of Agent Orange on the Citizens of the Commonwealth pursuant to SJR 141 of 1987, I am writing to urge you to support equitable compensation for Vietnam veterans who are suffering from the effects of Agent Orange and to request that you support the full implementation as intended by Congress of the Veterans Dioxin and Radiation Exposure Compensation Standards Act, P.L. 98-542.

During the study, the Joint Subcommittee heard from a number of legal and medical experts, federal officials and citizens of the Commonwealth and reviewed many documents and articles on Agent Orange exposure. The Subcommittee was also privileged to receive a presentation by Admiral Elmo R. Zumwalt. This testimony and research convinced the Joint Subcommittee that there is substantial evidence that many Vietnam veterans are suffering from terminal illnesses or long-term chronic health problems which may have resulted from their exposure to Agent Orange. Many of these individuals do not believe that the issue of Agent Orange has received a fair, objective assessment by federal officials. In their frustration, they have turned to the states for assistance. We ask that you acknowledge the duty of the federal government to these veterans.

Thank you in advance for your consideration of this matter. Any assistance to resolve the Agent Orange dilemma that you can provide will be greatly appreciated by the Vietnam veterans.

Sincerely,

J. Granger Macfarlane, Chairman
Joint Subcommittee Studying the Effects
of Exposure to Agent Orange on the
Citizens of the Commonwealth

cc: The members of the Joint Subcommittee

COMMONWEALTH OF VIRGINIA



J. GRANGER MACFARLANE
21ST SENATORIAL DISTRICT
CITY OF ROANOKE
TOWN OF VINTON
SOUTHWESTERN AND EASTERN
ROANOKE COUNTY
P O BOX 201
ROANOKE, VIRGINIA 24002

COMMITTEE ASSIGNMENTS:
AGRICULTURE, CONSERVATION
AND NATURAL RESOURCES
COMMERCE AND LABOR
LOCAL GOVERNMENT
TRANSPORTATION

SENATE

April 6, 1988

The Honorable James R. Olin
United States House of Representatives
1207 Longworth House Office Building
Washington, D.C. 20515

Dear Congressman Olin:

On behalf the Joint Subcommittee Studying the Effects of Agent Orange on the Citizens of the Commonwealth pursuant to SJR 141 of 1987, I am writing to urge you to support equitable compensation for Vietnam veterans who are suffering from the effects of Agent Orange and to request that you support the full implementation as intended by Congress of the Veterans Dioxin and Radiation Exposure Compensation Standards Act, P.L. 98-542.

During the study, the Joint Subcommittee heard from a number of legal and medical experts, federal officials and citizens of the Commonwealth and reviewed many documents and articles on Agent Orange exposure. The Subcommittee was also privileged to receive a presentation by Admiral Elmo R. Zumwalt. This testimony and research convinced the Joint Subcommittee that there is substantial evidence that many Vietnam veterans are suffering from terminal illnesses or long-term chronic health problems which may have resulted from their exposure to Agent Orange. Many of these individuals do not believe that the issue of Agent Orange has received a fair, objective assessment by federal officials. In their frustration, they have turned to the states for assistance. We ask that you acknowledge the duty of the federal government to these veterans.

Thank you in advance for your consideration of this matter. Any assistance to resolve the Agent Orange dilemma that you can provide will be greatly appreciated by the Vietnam veterans.

Sincerely,

J. Granger Macfarlane, Chairman
Joint Subcommittee Studying the Effects
of Exposure to Agent Orange on the
Citizens of the Commonwealth

cc: The members of the Joint Subcommittee

THE LETTER SET FORTH ON THE PREVIOUS TWO PAGES WAS SENT TO THE FOLLOWING:

The Honorable John W. Warner
United States Senate
421 Russell Senate Office Building
Washington, D.C. 20510

The Honorable Paul S. Trible, Jr.
United States Senate
517 Hart Senate Office Building
Washington, D.C. 20510

The Honorable Herbert H. Bateman
United States House of Representatives
1518 Longworth House Office Building
Washington, D.C. 20515

The Honorable Owen B. Pickett
United States House of Representatives
1429 Longworth House Office Building
Washington, D.C. 20515

The Honorable Thomas J. Bliley, Jr.
United States House of Representatives
213 Cannon House Office Building
Washington, D.C. 20515

The Honorable Norman Sissisky
United States House of Representatives
426 Cannon House Office Building
Washington, D.C. 20515

The Honorable James R. Olin
United States House of Representatives
1207 Longworth House Office Building
Washington, D.C. 20515

The Honorable D. French Slaughter, Jr.
United States House of Representatives
319 Cannon House Office Building
Washington, D.C. 20515

The Honorable Stanford E. Parris
United States House of Representatives
1705 Longworth House Office Building
Washington, D.C. 20515

The Honorable Frederick C. Boucher
United States House of Representatives
428 Cannon House Office Building
Washington, D.C. 20515

The Honorable Frank R. Wolf
United States House of Representatives
130 Cannon House Office Building
Washington, D.C. 20515

