Mr. Chairman and Members of Committee, I sincerely appreciate this opportunity to testify before you today.

As many of you know, it has been my special assignment over the past several months at the direction of Secretary Derwinski of the Department of Veterans Affairs to undertake an extensive review of the available scientific literature that speaks to the human health effects associated with exposure to the contaminants found in Agent Orange. In a report filed with the Secretary on May 5, 1990, a copy of which I am submitting for the record to these proceedings, I set forth in some detail (a) the results of my assessment of the health impacts that credited medical and scientific studies are indicating can be linked to exposures to dioxin contaminants found in Agent Orange, (b) the probable association of those exposures with cancers and other debilitating illnesses (including birth defects), and (c) how the weight of studied literature required the conclusion that a significant number of adverse health effects suffered by Vietnam veterans are more likely than not associated with service-related exposure to Agent Orange.

Let me start by stating that there is an overwhelming body of credited scientific research supporting the conclusion that certain cancers and other illnesses are associated with exposure to Agent Orange. Tragically, there is also credible evidence strongly suggesting that the probable cause of birth defects among children of Vietnam veterans can be traced to their parent’s exposure to Agent Orange.

The Committee should take note that I do not appear before you alone in my views. The 28 health effects I list in my report closely parallel the recently released findings of the Agent Orange Scientific Task Force. This group of seven independent and prominent scientists assembled by various veterans groups also evaluated the available scientific literature and concluded on their own that 21 health effects are associated with exposure to Agent Orange. It is indeed a fair observation, that any objective review of the available scientific literature by knowledgeable experts will predictably lead to much the same conclusion.

When I began the formidable task assigned to me by Secretary Derwinski, I hoped against hope that I would not find a discernable association between illnesses experienced by Vietnam veterans and exposure to Agent Orange. For one, I accepted Secretary Derwinski’s assignment out of keen awareness that from 1970 to 1974, as the commander of naval forces in Vietnam, I approved of and ordered the extensive spraying of Agent Orange as a proven means of reducing combat casualties. Secondly, while my son Elmo and I frequently suspected that his suffering and eventual death from Hodgkin’s disease and non-Hodgkin’s lymphoma were related to his wartime exposure to Agent Orange, both he and I believed, as did so many others, that there was insufficient scientific evidence to support a linkage between his illnesses and Agent Orange exposure. That was, of course, the conventional propaganda of the time.

The sad truth which emerges from my work is not only that there is credible evidence linking certain cancers and other illnesses with Agent Orange, but that government and industry officials credited with examining such linkage intentionally manipulated or withheld compelling information of the adverse health effects associated with exposure to the toxic contaminants contained in Agent Orange. As my report documents, the efforts to distort the record of the health effects of Agent Orange were so appallingly egregious that they continue to needlessly muddle the debate on the human health effects of toxic dioxins.

Let me elaborate. There is now a clear consensus among epidemiologists, toxicologists and immunologists that 2,4-D, 2,4,5-T and 2,3,7,8-TCDD (the dioxin contaminant) found in Agent Orange, are extremely toxic to animals. Numerous laboratory experiments confirm that dioxin causes a variety of cancers, birth defects, neurological, immunological and other disorders in animals. While dioxin apologists concede dioxin’s carcinogenic effects on animals, they insist that humanity has a miraculous
dispensation from the harmful effects dioxin reeks on other species of the animal kingdom. To support these claims, we are referred with predictable regularity to a handful of “studies” that purport to examine the health of humans accidentally exposed to dioxin contaminants.

The first group of studies are those sponsored and trumpeted by government officials to bolster the “scientific” reasons behind the decision to deny compensation to Vietnam veterans exposed to Agent Orange. Regrettably, each study is seriously flawed in both its methodology and conclusions.

Take the Agent Orange Validation Study conducted by the Centers for Disease Control commenced in 1983. The purpose of this study was logical and simple. It was meant to answer the threshold question of whether exposure to Agent Orange could, in fact, be accurately estimated. Four years and $63 million dollars later, the CDC answered the question in the negative -- it claimed that neither blood tests nor military records could verify whether Vietnam veterans had been exposed to Agent Orange.

It now is becoming increasingly apparent that this conclusion was the product of an intentional effort by government officials and others to sabotage any chance of assessing Agent Orange’s harm to human health. Consider the following.

1. In the Agent Orange Study, as in all epidemiological studies, the most important aspect of the study’s design is to include participants who have actually been exposed to Agent Orange itself. Failing this, the study is fated to produce meaningless results by virtue of the problem known in epidemiological circles as the “dilution effect.” That is, by including unexposed individuals in the class of study subjects who have been exposed to Agent Orange, the occurrence of adverse health effects among those exposed to Agent Orange will be diluted by the presence of unexposed subjects within the exposed group. The same is true in the converse.

In recognition of this fact, the CDC’s original protocol targeted discrete military units known to be operating in areas most heavily sprayed with Agent Orange. Inexplicably, the protocol was altered. The CDC decided to track battalions of 1,000 men, many of whom did not serve in areas sprayed by Agent Orange, rather than companies of 200 men whose operations in contaminated areas could be verified with near certainty by computer records. Service requirements were reduced from nine to six months, and any veteran who served more than one tour of duty in Vietnam was excluded as a study subject. In short, the protocol was fatefully diluted to prevent the possibility of facing harsh conclusions.

Worse yet, the CDC insisted that blood tests taken more than 20 years after a veteran’s service in Vietnam were the only valid means of verifying Agent Orange exposure. This insistence came even in light of the fact that the repeated occurrence of false results in these very blood tests caused the CDC’s own medical statistician to caution against using blood tests as the sole means of verification.

2. Having concluded this charade of a validation study on the note that validation was not possible, intellectual honesty demanded that the CDC halt its Selected Cancers Study. After all, if the CDC could not assess Agent Orange exposure how could it possibly assess whether there is a relationship between exposure to Agent Orange and six types of cancer? In an outrageous display of arrogance, the CDC not only continued with its Selected Cancers Study, but actually had the audacity to conclude upon the study’s release some four years later in 1990, that Agent Orange is an unlikely cause of elevated cancer levels in Vietnam veterans. The foundation for this conclusion is so vacuous that the CDC could have stated with the equal certainty of a Joe Isuzu that cotton candy is an unlikely cause of elevated cancers in Vietnam veterans! The only reason to have even mentioned Agent Orange in connection with the recent release of the Selected Cancers Study was to mislead the Congress and the public as to the serious health effects associated with Agent Orange exposure.

3. Indeed, as I have stated in my Report and as additional documents to be released by this Committee will unequivocally demonstrate, there has been from the outset of the Agent Orange debate a coordinated campaign by industry and government officials to create and foster false assurances about Agent Orange. Insidious as it may seem, administration officials who were not scientists have actually interfered in the design, implementation and drafting of the conclusions stated in the CDC and Air Force Ranch Hand studies.
4. As if to underscore this fact, Senator Thomas Daschle reported as recently as March of this year that there are serious irregularities in the Ranch Hand study. These irregularities include the suppression of a birth defects study showing excessive neonatal deaths and birth defects, as well as the deletion of critical data and conclusions from early study drafts which actually linked Agent Orange exposure to cancer and other diseases. In fact, when Dr. Richard Albanese, one of the original four Ranch Hand scientists openly expressed a measure of caution about the optimistic conclusion of the Ranch Hand study’s politically edited results, he was rewarded for his candor by being removed from the Ranch Hand study. Regrettably, Dr. Albanese’s concerns have been proven well-founded as recent reports of reexaminations of the health records of Ranch Handers indicate that the group’s incidence of adverse health effects and skin cancers, in particular, have been seriously understated.

5. The second group of studies, those sponsored by chemical manufacturers whose workers were exposed to dioxin contaminants in industrial accidents, are no less shameful a testament to the fraud and deception that have characterized the Agent Orange debate. Studies of industrial accidents -- in particular, one at Monsanto’s West Virginia Nitro plant in 1949 and one at BASF’s Ludwigshagen, Germany plant in 1953 -- have profoundly impacted the scientific and regulatory assessments of dioxin effects on human health. According to the Environmental Protection Agency, these two studies are the only human studies for which there has been sufficient exposure information and latency periods for cancer development to adequately assess dioxin exposure among the study subjects. So dominant have these studies been in the subset of dioxin research on humans, that other studies reporting statistically significant correlations between cancer and dioxin exposure, such as Dr. Lennart Hardell’s studies on Swedish farm workers, have been repeatedly challenged for their failure to conform to these two purportedly basic referent studies.

6. We now learn, however, as recently spelled out in court papers filed against Monsanto, that the Monsanto studies were a fraud. Dr. George Roush, Monsanto's Medical Director admitted that in the 1983 Zack and Gaffy study, Monsanto researchers had knowingly omitted five deaths from the exposed study group and classified four exposed workers as unexposed to equalize the death rates among the exposed and unexposed workers. Roush further admitted that the overall death rate from cancer was 65% greater in the exposed population than expected.

The co-author of two additional Monsanto studies (Zack & Suskind 1980; Suskind & Hertzberg 1984), Dr. Suskind, further acknowledged that he had purposefully omitted from his published reports any reference to secret Monsanto studies that documented psychoneuroses and long term nervous system and liver damage. So shocking were these revelations of purposeful efforts to skew scientific research and other Monsanto deceptions that an Illinois jury assessed punitive damages against Monsanto in the amount of $16.25 million.

7. Incredibly, such manipulations did not stop with Monsanto. In 1985 the Berufsgenossenschaft, the industry association responsible for handling liability claims from the BASF industrial accident, published a study based on company supplied data denying any association between cancer and dioxin exposure of BASF workers 30 years earlier. Yet, at the September 1989 Ninth International Dioxin Symposium, epidemiologist Dr. Friedemann Rohleder, a reviewer of the BASF data for the West German Court of Social Affairs, reported that the BASF study had been deliberately massaged to obscure significant human health effects. He found many inconsistencies, including the deliberate misclassification of exposed and unexposed workers. When such anomalies were corrected, cancers in the respiratory organs and digestive system of exposed workers were 2.66 and 2.55 times the norm respectively.

8. The disproportionate impact these two fraudulent studies have had on the dioxin debate is exemplified by their incorporation into the conventional wisdom on Agent Orange. Indeed, Michael Gough, author of Dioxin, Agent Orange: The Facts, devotes an entire chapter to the Monsanto studies to support the hypothesis that “the absence of detectable harm in exposed people has reduced the level of concern about dioxin.” Mr. Gough’s pronouncements have sadly carried weight because of his position as the former director of special projects at the Congressional Office of Technology Assessment and as a member of the White House Working Group on Agent Orange. In light of court disclosures on Monsanto and BASF,
these studies and Mr. Gough's work that so heavily relies on their flawed conclusions must be severely, if not totally discounted.

What is so incredible about the revelations associated with Agent Orange is that the flawed scientific studies and manipulated conclusions are not only unduly denying justice to Vietnam veterans suffering from exposure to Agent Orange, they are now standing in the way of a full disclosure to the American people of the likely health effects of exposure to toxic dioxins. Consider that Dr. Vernon Houk, a former member of the White House Agent Orange Working Group and the current director of the Center for Environmental Health and Injury Control, recently recommended that a state government adopt dioxin dumping standards for paper mills at a level 50 times greater than that recommended by the EPA. Astoundingly, Dr. Houk's letter comes even in the face of the EPA's own warning that the presence of such a potent carcinogen as dioxin in the production of paper warrants greater concern, attention and regulatory action. This, remember, is coming from the director of the very department within the CDC responsible for the Agent Orange studies discussed today.

For those cynics who remain, consider further that military applications of Agent Orange were dropped in concentrations six to twenty-five times greater than considered, at the time, safe for human use. In light of the fact that developing scientific and medical expertise continues to verify that dioxin is a potent carcinogen, and that we now know from the field of immunology that dioxin, through immunosuppression, indirectly facilitates the spread of cancer, there is more than enough evidence to give the Vietnam veteran exposed to Agent Orange the benefit of the doubt (to the extent “doubting Thomases” remain) on his compensation claim for service-related cancers, birth defects and other illnesses listed in my Report.

To his credit, Secretary Derwinski, with the personal support of the President, has honorably distanced himself from the Agent Orange fraud. In an attentive, thoughtful and compassionate decision Secretary Derwinski recently concluded that soft tissue sarcoma is a compensable service-related injury directly associated with a veteran's exposure to Agent Orange. This comes on the heels of an earlier decision to recognize non-Hodgkin's lymphoma as a compensable injury. While these are landmark decisions in the sordid Agent Orange affair, they are only the first steps in righting a significant national wrong committed against our Vietnam veterans.

As documented in my report, the Agent Orange Scientific Task Force Report and numerous other studies that speak to the serious health risks associated with exposure to the contaminants found in Agent Orange, there is more than enough verifiable, credible evidence to justify service-connected compensation for Vietnam Veterans exposed to Agent Orange. The debate on this matter has been needlessly prolonged. The right decision -- indeed the only morally acceptable decision -- for members of this committee and their colleagues in Congress to make is to acknowledge that Agent Orange is responsible for a wide range of diseases, illnesses and birth defects for which Vietnam veterans should be rightfully compensated.