



**House  
Legislative  
Analysis  
Section**

Washington Square Building, Suite 1025  
Lansing, Michigan 48909  
Phone 517/373-6466

201-1001  
JUN 05 1987  
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**VETERANS: AGENT ORANGE**

Senate Bill 218 with House committee amendments  
First Analysis (5-21-87)

Sponsor: Sen. Vern Ehlers  
Senate Committee: Local Government and Veterans  
House Committee: Military and Veterans Affairs

S.B. 218 (5-21-87)

**THE APPARENT PROBLEM:**

Vietnam veterans have claimed for many years that a number of health problems that they and their families have experienced are the result of the veterans' exposure in Southeast Asia to the powerful chemical defoliant Agent Orange, a combination of two herbicides and a toxic by-product, dioxin. These health problems include numbness, tingling and intermittent paralysis in the arms and legs; skin rashes (including chloracne, a severe skin condition which can last for years); liver disorders; kidney damage; loss of sex drive; psychological disturbances (including insomnia and radical mood changes); increased susceptibility to infections (immunosuppression); loss of appetite and weight; weakness; cancers (including rare, soft-tissue cancers); and reproductive health problems such as miscarriages, stillbirths, and birth defects in children born after the fathers returned from Vietnam.

For years the federal government refused to pay disability claims for exposure to Agent Orange on the grounds that there was no documented scientific proof of a causal relationship between exposure to dioxin and any disease other than chloracne. In the early 1980s, Congress did pass a law that required the Veterans' Administration (VA) to treat some conditions associated with dioxin exposure (such as chloracne and liver disorders) as "presumptive disabilities". The VA also was required to establish a free Agent Orange screening program and registry for veterans, but a report issued by the U.S. Government Accounting Office was highly critical of the VA's conduct of the screening and recommended that the registry be scrapped because it was so inadequate. In addition, the VA was to conduct comprehensive studies, but basically did not. Instead, the federal Centers for Disease Control have taken over this function and are in the process of completing a validation study to demonstrate a correlation between exposure to Agent Orange and dioxin levels in the body before embarking on a much larger study.

Frustrated by the federal government's failure to address their concerns about Agent Orange exposure, Vietnam veterans across the nation began taking a number of steps to resolve some of these issues themselves. A class action product liability lawsuit was filed against the chemical manufacturers of Agent Orange (including Dow Chemical Company of Midland) in January, 1979. In 1984 the lawsuit was settled out of court for \$180 million, but the settlement currently is being contested by some veterans' groups. In addition, however, veterans have turned to their state legislatures for help. Since 1980, when New Jersey became the first state to do something about Agent Orange by creating a state Agent Orange commission, as many as 28 state projects or commissions have been established, though currently not all of them are in operation.

Various veteran groups in Michigan have requested state legislation addressing their concerns with Agent Orange.

**THE CONTENT OF THE BILL:**

The bill would amend the Public Health Code to:

- Create within the Department of Public Health the Agent Orange Commission and the Agent Orange Information Resource Center.
- Describe the membership of the Agent Orange Commission, members' terms of service, and requirements for the commission to hold meetings.
- Prescribe the duties of the Agent Orange Commission and the information resource center.
- Require the department to refer Vietnam-era veterans to appropriate state and federal agencies in order to file claims for medical and financial problems caused by exposure to Agent Orange or a chemical agent.
- Provide for the department to promulgate rules to implement the bill.

The bill would take effect on Memorial Day, May 30, 1987, and is tie-barred to House Bill 4460 (discussed below).

Agent Orange Commission

The Agent Orange Commission would be required to do all of the following:

- Review the toxicological and epidemiological literature on herbicide compounds and their by-product contaminants of the type used by the armed forces used during the period prescribed in House Bill 4460, i.e., between January 1, 1961, and September 1, 1973.
- Review and publicize the department's public information program directed at Vietnam-era veterans who had been exposed to Agent Orange, a chemical agent, or other herbicide mixtures that contained dioxin. ("Agent Orange", "chemical mixture", and "Vietnam-era veteran" would be defined in House Bill 4460.)
- Review the department's programmatic and research activities and provide recommendations to the department, the chairpersons of the committees of the Senate and House of Representatives for legislation concerning veterans and other appropriate governmental offices, as to the department's ongoing investigations of the adverse effects on human health of Agent Orange, chemical agents, and other herbicide mixtures that contained dioxin.
- Advise and assist the department in the bill's implementation.

Commission Membership

The commission would be composed of 14 members who would include the director or his or her designee, the Attorney General or his or her designee, and the following members who would be appointed by the governor with the advice and consent of the Senate:

- A representative of the Michigan Veterans Trust Fund.
- Four researchers who were experts in the fields of cytogenetic evaluations, birth defects, immunological studies, neurological studies, toxicology, oncology, or other fields relevant to the purposes of the bill whose knowledge could contribute to the bill's implementation.

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- Five Vietnam-era veterans, at least one of whom would have to be a female.
- Two representatives of the general public, one of whom would have to be appointed from a list of nominees provided by the Senate Majority Leader and one from a list provided by the Speaker of the House.

Each member would serve for a two-year term and could be reappointed once. A vacancy would have to be filled in the same manner as the original appointment for the duration of the unexpired term.

#### Commission Meetings

Commissions members would be required to elect a chairperson annually and to meet at least four times each year at the call of the chairperson. The first meeting would have to be held no later than three months after the bill's effective date.

Commission members would be required to serve without compensation, but would be reimbursed for their "necessary" travel expenses in order to attend the commission meetings.

The commission would be subject to the Open Meetings Act and the Freedom of Information Act.

#### Agent Orange Information Resource Center

The Agent Orange Information Resource Center, created within the Department, would be required to have members with expertise in human medicine, toxicology, epidemiology, and data management and analysis.

The information resource center would be required to:

- Perform searches of technical documents and published scientific literature and maintain a registry of all known ongoing Agent Orange-related research. The center, with appropriate "extramural" consultation, would be required to develop the survey questionnaires, data base management system, and the medical analysis system for the registry. These information resources would have to be used in the annual analysis of data on Vietnam-era veterans and in providing the annual reports required in House Bill 4460.
- Solicit state and local media organizations to inform Vietnam-era veterans of their rights under the bill and to encourage Vietnam-era veterans to submit health information, and other relevant information, to the department, commission, and information resource center as required under the bill.
- Provide local health and veteran's facilities with a comprehensive and annually updated list of tertiary medical care facilities as defined in the health code (MCL 333.22108), specializing in areas appropriate for the clinical laboratory evaluation of veterans to determine if a Vietnam-era veteran had suffered physical damage as a result of "substantial" exposure to Agent Orange or a chemical agent.
- Annually request local veterans' organizations and health agencies to evaluate the operation of the center's program from their perspective.

#### Claims

The department, through the information resource center or otherwise, would be required to refer Vietnam-era veterans to appropriate state and federal agencies for the purpose of filing claims to seek remedies for medical and financial problems caused by the Vietnam-era veterans' exposure to Agent Orange or chemical agents.

#### Effective Date, Tie-Bar

The bill would take effect on the traditional date of Memorial Day, May 30, 1987. It is tie-barred to House Bill 4460, which would mandate a number of epidemiological studies on Vietnam veterans and establish a birth defects registry.

MCL 333.5731 et al.

## **HOUSE COMMITTEE ACTION:**

The House Committee on Military and Veterans Affairs added one substantive amendment. It would specify that the studies and the birth defects registry would be phased in "according to an orderly schedule established by the [public health] department, with the advice of the commission."

## **BACKGROUND INFORMATION:**

### Dioxin

Technically, there is no single chemical named "dioxin". Rather, dioxin refers to a family of chemicals that includes 75 compounds. The most toxic of these, and the one that has caused the most concern (as in the case of Agent Orange) is 2,3,7,8-tetrachlorodibenzo-para-dioxin, or TCDD, a very stable compound. It tends to persist in the environment and to break down very slowly in the body. The dioxins usually are not manufactured on purpose. Instead, they are the unwanted by-products of chemical reactions used to make the herbicides Silvex and 2,4,5-trichlorophenoxyacetic acid (known as 2,4,5-T); chlorophenols, such as the wood preservative pentachlorophenol; and the antibacterial agent hexachlorophene (which was banned in soaps and deodorants in 1972 after it was shown to cause brain damage in baby monkeys). Dioxin also is released into the atmosphere when wastes that contain chlorinated compounds are burned. These wastes can be domestic trash burned in municipal trash incinerators (including so-called "waste-to-energy" incinerators) or chemical refuse burned in chemical waste incinerators.

The TCDD form of dioxin is the most toxic synthetic organic chemical known, and it ranks with naturally occurring substances as the fourth most deadly poison. (Only the toxins made by the bacteria that cause botulism, tetanus, and diphtheria are stronger.) Although extrapolation from laboratory animal studies must be made with caution, one researcher reports that, assuming that humans are as sensitive to dioxin exposure as guinea pigs are, one ounce of TCDD could constitute a lethal dose for more than 675,000 average-sized adults.

Despite its known toxicity, much about dioxin's action on the body remains unknown. The herbicides now associated with Agent Orange (and the contaminant dioxin) were first developed by the end of World War II, but dioxin (TCDD) itself was not identified until 1957. Once dioxin had been synthesized and identified, scientists began to study its effects in laboratory animals. However, the lethal dosage of dioxin for laboratory animals, adjusted for body weight, varies among species by factors as high as 5,000, so most of the information of its effects on people has been taken from industrial accidents and, more recently, agricultural exposures. Until very recently, the results of most of these studies were complicated by the lack of good control groups and relatively primitive analytical techniques.

### Agent Orange

The U.S. Air Force estimates that 17.4 million gallons of herbicides used in South Vietnam and Laos between 1962 and 1971, including Agent Orange, contained 368 pounds of dioxin. Of that total, Agent Orange 1 and 2 made up 11 million gallons. Also used were approximately nine million gallons of Agents Purple, Green, and Pink (mixtures of different proportions of the herbicides 2,4,5-T and 2,4-D became known as agents purple, green, and pink, depending on the colored stripes of their containers), plus less than one million gallons of Agent White (another herbicide) and Agent Blue (a form of arsenic). A spokesperson for the federal Centers for Disease Control has said that significantly higher amounts of Agent Orange were distributed by the armed forces in Southeast Asia and not reported.

**MORE**

Vietnam Veterans Agent Orange Pilot Program

Public Act 209 of 1986, which made appropriations for the Department of Public Health, mandated that the department "develop a plan for the implementation of the Vietnam Veterans Agent Orange Program". The department was required to submit a plan by January 1, 1987, to the Senate and House appropriation subcommittees on public health, the Department of Management and Budget, and the Senate and House Fiscal Agencies.

The Agent Orange Pilot Program has been implemented in the department's Center for Environmental Health Sciences (CEHS) in order to investigate and aid the state's Vietnam veterans with herbicide exposure. The center's Herbicide Working Group recommended the following objectives for the \$150,000 appropriated in 1986-87 for the pilot program:

- To establish a "Herbicide Information Center" within the CEHS to provide up-to-date information on the possible health effects of herbicide exposure to veterans, their families, and the medical community.
- To create a confidential "cohort registry" of Vietnam-era veterans.
- To perform a limited health survey of Vietnam veterans and their families to obtain their occupational, family, and medical history.
- To pilot further studies by using the Vietnam veterans registry to investigate the causes of morbidity, mortality, disability, the personal needs of the Vietnam veteran, and specific medical conditions selected from the findings of completed and ongoing health studies of veterans.
- To develop recommendations for a continuing Vietnam veterans investigation health advice program, and interventions as knowledge changes on the health effects of herbicides on humans.

(The last two objectives, according to the department, are contingent upon the enactment of Senate Bill 218 and House Bill 4460.)

### **FISCAL IMPLICATIONS:**

The House Fiscal Agency reports that the cost of both House Bill 4460 and Senate Bill 218 to the state would be \$225,000 for fiscal year 1986-87, and \$400,000 per year thereafter until fiscal year 1990-91. Since \$150,000 has already been appropriated in this year's budget, there would be an increase of \$75,000 in cost to the state for this fiscal year and an additional \$250,000 per year thereafter. (5-11-87)

### **ARGUMENTS:**

#### **For:**

For far too long Vietnam veterans have suffered the neglect of their government and of American society at large. In addition to the general neglect that veterans faced when they returned home from one of America's most unpopular wars, many who were put physically at risk through their exposure to extremely toxic chemicals in Southeast Asia have also faced resistance to their attempts to find out the aftereffects of their chemical exposure.

In a manner reminiscent of the tobacco industry's claims that smoking has never been causally linked to cancer, despite the U.S. Surgeon General's repeated warnings to the public about the health hazards of tobacco use, the federal government has resisted veterans' claims to having been harmed by their exposure to the chemicals used in the war in Southeast Asia by insisting that the only proven link between exposure to one of these chemicals — dioxin — is the severe but non-fatal skin disease known as chloracne, despite the known fact that dioxin is the most deadly synthetic poison known. The federal government

has, figuratively speaking, consistently dragged its feet when pressed to act on the Agent Orange issue. And even when it has, reluctantly, acted, the results have been unsatisfactory at best. For example, according to a senior policy analyst for the White House Office of Science and Technology, the studies conducted to date by the federal government on Agent Orange, at a cost to taxpayers of \$155 million, have been inconclusive. Although as recently as 1985 this same analyst continued to insist that states did not have the resources to do the studies that are needed to demonstrate cause and effect between Agent Orange exposure and veterans' health problems, the states have given up waiting on federal action and have been embarking on their own investigations.

Thus, for example, New Jersey's Agent Orange Commission made news last fall when it announced that the levels of dioxin in the blood and fat of exposed veterans it studied were ten times higher than those of two control groups. According to one researcher, the New Jersey findings provided "compelling evidence" that dioxin lingers in the body as long as twenty years after exposure. Related studies on exposure to the other chemical agents in Agent Orange have also been completed recently, and have raised serious cause for concern about exposure to the herbicides contained in Agent Orange. A Kansas study done for the National Institute of Cancer, for example, showed that farmers exposed to one of the most commonly used agricultural and lawn herbicides were eight times more likely to suffer non-Hodgkins lymphoma than the general population. Finally, new blood testing technology, enabling researchers to detect dioxin levels at the parts per trillion level, promise that much more sophisticated and informative studies can be carried out today that were impossible even a few years ago.

It is time for Michigan to act. Other states have taken action in the face of federal inaction, and in February of this year a national conference of state Agent Orange programs was held in Boston. Participants at the conference agreed to form a National Association of Agent Orange Programs to coordinate state activities and to share findings. The juxtaposition of the veterans' class action suit against the chemical manufacturers, federal legislation, action by the VA and the Centers for Disease Control, and the important studies and coordinated actions by the states make the formulation of sound public policy possible and timely. The efforts to address the aftermath of exposure to herbicides and dioxin during the Vietnam War have accelerated and Michigan should be an integral part of this process. The knowledge and expertise developed during this course of action will not only benefit the affected veterans and their families, but also the population at large, which has been exposed to many of the same chemicals and compounds. Even though the states alone will not be able to entirely resolve all of the issues surrounding the Agent Orange issue, there still is a lot of room for the states to act and even to take a leadership position vis-a-vis the federal government. Finally, in recent years more and more Vietnam era veterans have been serving in Congress. State action, such as proposed by this bill, can give these veterans the fuel to continue to press for appropriate action on the federal level.

#### **For:**

Approximately 380,000 Michiganians served in the armed forces during the Vietnam war, and, of that total, approximately 120,000 military personnel from Michigan served in Vietnam. This is the third highest population of Vietnam-era veterans among all the states. Many of the veterans believe the VA has not acted in good faith in dealing with the Agent Orange issue. Senate Bill 218 would confirm the state's support of the veterans' concerns and would convey the state's appreciation for their service in the armed forces.

### ***For:***

Agent Orange is chemically related to polybrominated biphenyl (PBB) and polychlorinated biphenyl (PCB), which caused a major contamination problem for some Michigan farmers in the late 1970s. Since these chemicals exhibit similarities, such as accumulating in the fatty tissues of the body, research into human exposure to Agent Orange could be beneficial to the total research efforts on the effects of dangerous chemicals to the population as a whole.

### ***For:***

A recent ruling of the U.S. Court of Appeals, in New York, only heightens the need for states to assist Vietnam veterans exposed to Agent Orange. The appeals court affirmed the \$180 million settlement that was reached in the class action suit on behalf of 2.4 million veterans against seven chemicals companies cited as producers of Agent Orange. The federal government had been removed from the case on the basis that a person could not sue the government if he or she was injured in the course of serving in the armed forces. Vietnam veterans, angered by the ruling and removal of the federal government from the case, are turning to the states for assistance through such efforts as Senate Bill 218 and House Bill 4460.

### ***For:***

Last year, the legislature appropriated \$150,000 to the Department of Public Health to implement a registry of veterans in the state who served in Vietnam. Senate Bill 218, along with House Bill 4460, is needed to extend the department's efforts beyond merely gathering information to conducting studies on the effects of Agent Orange and developing recommendations for a continuing health advice program for these veterans.

### ***Against:***

The bill is not necessary since it would duplicate many of the efforts already undertaken by the Veterans Administration. The VA started Agent Orange screening in 1978 and Congress passed a law in 1980 to continue this screening. So far, more than 200,000 Vietnam veterans have undergone physical examinations. The VA also has developed a national Agent Orange registry that is designed to identify Vietnam veterans who are concerned about exposure to Agent Orange. Currently, a veteran who believes that he or she had been exposed to Agent Orange, can obtain from the VA a physical exam; receive medical care at a VA medical center without having to establish a relationship between the medical problem Agent Orange exposure; request compensation for ailments directly related to Agent Orange exposure; and be included in the VA's Agent Orange registry. In addition, the VA has formed a national advisory committee on Agent Orange and conducts ongoing research into the effects of Agent Orange. Two major research efforts by the VA include the "Ranch Hand" study, which examines Air Force personnel who were in direct contact with Agent Orange, and research done in conjunction with the Center for Disease Control on Agent Orange exposure to military personnel and the effects on their offspring. The VA is doing everything possible to deal with Vietnam veterans' health concerns and is conducting research on long-range health problems resulting from exposure to Agent Orange.

**Response:** While the VA claims that a Vietnam veteran can request compensation for an ailment directly related to Agent Orange exposure, only 13 claims made solely for chloracne have been approved. The VA contends that there is no scientific evidence clearly linking Agent Orange exposure to health problems, except for chloracne. As a result, Vietnam veterans are not eligible for federal disability compensation for exposure to Agent Orange. Information gathered from Agent Orange efforts in

Michigan, as proposed in the bills, might go along way in compelling the VA to acknowledge the direct relationship between Agent Orange exposure and serious health problems. Vietnam veterans then might be able to receive the compensation they deserve.

### ***Against:***

States do not declare war nor do they use chemical weapons. The question of Agent Orange exposure and Vietnam veterans is an issue of the federal government. The state cannot afford to take on a responsibility that it should not have had in the first place.

**Response:** Despite the passage of more than 10 years since the end of the Vietnam conflict, many veterans are frustrated over what they see as a lack of concern and action by the VA. Some veterans contend that the VA never will acknowledge the direct link between Agent Orange exposure and severe health disorders because, in doing so, the federal government would be admitting to the international community that the United States employed a form of chemical warfare in the Vietnam war. While veterans' matters are the concern of the federal government, states must become involved in order to prod the Federal government into resolving the issue.

### ***POSITIONS:***

The following testified in support of the bill:

The Department of Public Health  
The Department of Military Affairs  
The Department of Management and Budget  
The Veterans Trust Fund  
The Vietnam Veterans of America  
The Marine Corps League  
The American Legion  
The Polish Legion of American Veterans  
The Michigan Association of County Veterans Counselors  
The Military Order of the Purple Heart  
The Consolidated War Veterans Councils of Michigan