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**STATEMENT OF  
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SUBCOMMITTEE ON DISABILITY ASSISTANCE AND MEMORIAL AFFAIRS  
UNITED STATES HOUSE OF REPRESENTATIVES  
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Chairwoman Luria, Ranking Member Bost and Members of the Subcommittee:

Thank you for inviting DAV (Disabled American Veterans) to testify at today's oversight hearing, Toxic Exposures: Examining Airborne Hazards in the Southwest Asia Theater of Military Operations and the latest findings surrounding the health effects on veterans who have served in Southwest Asia and have experienced exposure to burn pits, oil well fires, and other airborne elements that form harmful particulate matter.

DAV is a congressionally chartered national veterans' service organization (VSO) of more than one million wartime veterans, all of whom were injured or made ill while serving on behalf of this nation. To fulfill our service mission to America's injured and ill veterans and the families who care for them, DAV directly employs a corps of National Service Officers (NSOs), all of whom are themselves wartime service-connected disabled veterans, at VA regional offices (VARO) as well as other VA facilities throughout the nation. Together with our chapter, department, transition and county veteran service officers, DAV has over 4,000 accredited representatives on the front lines providing free claims and appeals services to our nation's veterans, their families and survivors. We represent over one million veterans and survivors, more than any other VSOs. This provides us with an expert understanding and direct knowledge in navigating the VA claims and appeals process.

Madame Chair, the men and women who serve are often placed in situations that have long-term health effects that will impact their individual functioning, provide industrial impairments and require physical rehabilitation and future health care. When these men and women are subjected to toxins and environmental hazards, our sense of duty to them must be heightened as many of the illnesses and diseases due to these toxic exposures may not be identified for years, even decades after they have completed their service.

Although there has been some significant progress achieved over the past two decades for veterans who suffer illnesses due to toxic and environmental exposures, there are still too many who have yet to receive the full recognition, health care and benefits our nation owes to them. Many are left still waiting, particularly Persian Gulf

veterans and post-9/11 veterans who have served in the Southwest Asia theater of operations and were exposed to airborne hazards. We have an obligation to remove barriers for these veterans and simplify access to VA health care and benefits.

For most veterans, the gateway to access VA benefits starts with a grant of service connection for their wounds, diseases, injuries, and illnesses related to active military service. To establish service connection based on toxic exposures, there are two avenues applicable; presumptive service connection and direct service connection.

This testimony will provide a background on toxic exposure presumptives and their timelines, assess the recent report from the National Academies of Sciences, Engineering, and Medicine, (National Academies), "Respiratory Health Effects of Airborne Hazards Exposures in the Southwest Asia Theater of Military Operations" and provide recommendations on strengthening direct service connection for toxic exposures.

### **Presumptive Service Connection**

In order to better understand the presumptive process, we first need to know the requirements of direct service connection and the differences with presumptives. To establish direct service connection for a condition, a veteran must meet three requirements:

- (1) evidence of a current disability or condition,
- (2) evidence of an event or a disease or injury in the military,
- (3) evidence of a medical link or opinion that the current diagnosed condition "is at least as likely as not," related to the event in-service.

Presumptive service connection lightens the burden of proof and relieves the veteran of proving one or more of the requirements for direct service connection. The difference between direct and presumptive service connection is the amount of proof required. The purpose of presumptives is to overcome evidentiary gaps of a veteran's specific exposure and the scientific association of diseases.

For example, presumptive service connection for diseases related to herbicide exposure/Agent Orange, requires the veteran to prove the existence of a recognized presumptive disease and proof of service in Vietnam or in the waters offshore. The veteran is not required to prove exposure to Agent Orange, as VA concedes exposure if the veteran was in Vietnam or the waters offshore. Also if a veteran is diagnosed with one of the fourteen diseases that have been scientifically associated with Agent Orange exposure, the VA presumes the medical link, thus no burden of proof on the veteran.

Recognized presumptive diseases linked to the conceded exposures are established by positive association based on review of existing studies and medical evidence. In most cases, this has been provided by the National Academies.

Presumptive service connection based on some toxic exposures has been established by Congress and VA and include: Radiation, Herbicide Agents (Agent Orange), Mustard Gas/Lewisite, Persian Gulf War, and Contaminated Water at Camp Lejeune. In many of these cases, it took decades to establish presumptive service connection and to scientifically associate these exposures to recognized diseases.

### **Mustard Gas and Lewisite**

During World War II (WWII), both the Axis and Allies produced millions of tons of chemical weapons and had made massive preparations for their use. The U.S. established secret research programs to develop better chemical and toxic weapons and better methods of protecting against these poisons. At the end of WWII, over 60,000 U.S. service members had been used as human test subjects. At least 4,000 of these active military service members had participated in tests conducted with high concentrations of mustard agents or Lewisite in gas chambers or in field exercises over contaminated ground areas. The U.S. service members were intentionally exposed to mustard agents or Lewisite, from mild (a drop of agent on the arm in "patch" tests) to quite severe (repeated gas chamber trials, sometimes without protective clothing).

Not until 1991, over seventy years from mustard gas use in WWI and over fifty years from the secret testing in WWII, did the VA provide guidelines for establishing claims related to these exposures. In 1992, VA requested a study from the National Institute of Medicine (IOM), currently the National Academy of Medicine. The report, "Veterans at Risk: The Health Effects of Mustard Gas and Lewisite," was issued in 1993 and prompted an update to the regulatory provision in 1993 and 1994.

### **Radiation Exposure**

Some of the first atomic veterans were service members who were sent to Hiroshima and Nagasaki to assist in clean-up. Approximately 255,000 troops were involved in the occupation of Hiroshima and Nagasaki. From 1946 to 1962, the United States conducted about 200 atmospheric nuclear tests. Approximately 400,000 service members were present during these atmospheric tests, whether as witnesses to the tests themselves or as post-test cleanup crews. Sworn to secrecy, many of these service members never told anyone of what they witnessed. If they told anyone that they were involved in these nuclear tests, they could have been fined up to \$10,000 and tried for treason.

On October 24, 1984, nearly forty years after the exposure, the Veterans' Dioxin and Radiation Exposure Compensation Standards Act was enacted to ensure compensation to veterans and their survivors for disabilities or deaths related to exposure to ionizing radiation during atmospheric nuclear testing or the occupation of Hiroshima and Nagasaki. In May 1988, new statutory provisions expanded compensation on a presumptive basis for other radiation-exposed veterans who developed specific diseases, over twenty-five years after the last exposures from the atmospheric testing.

## **Agent Orange**

The U.S. program, code-named Operation Ranch Hand, sprayed more than 20 million gallons of various herbicides over Vietnam, Cambodia and Laos from 1961 to 1971. The purpose was to strip the thick jungle canopy that could conceal opposition forces, to destroy crops that those forces might depend on, and to clear tall grasses and bushes from the perimeters of US base camps and outlying fire-support bases. At the time of the spraying, 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), the most toxic form of dioxin, was an unintended contaminant generated during the production of 2,4,5-T and so was present in the herbicide known as Agent Orange.

After their service, many Vietnam veterans were developing multiple illnesses and fatal diseases. It was not until the Veterans' Dioxin and Radiation Exposure Compensation Standards Act of 1984 that VA recognized presumptive service connection for an illness related to Agent Orange. In 1991, the Agent Orange Act became public law, nearly thirty years after the use of Agent Orange began and twenty years after the end of spraying.

## **Persian Gulf War and Undiagnosed Illnesses**

In response to the invasion of Kuwait by Iraq in August 1990, the United States led a coalition of 34 countries in Operation Desert Shield in the Persian Gulf. This was followed by Operation Desert Storm, which began in January 1991 and ended with a cease-fire in April 1991. Almost 700,000 U.S. troops were deployed to the Persian Gulf region during the height of the buildup and thousands returned home and began suffering from a number of serious illnesses considered related to exposures.

The Persian Gulf War Veterans Act of 1998, codified at title 38, United States Code, § 1118, was established to associate the numerous health effects known as Persian Gulf Illnesses. These were established in less than ten years from the first day of exposure.

## **Contaminated Water**

From the 1950s through the 1980s, people living or working at the U.S. Marine Corps Base Camp Lejeune, North Carolina, were exposed to drinking water contaminated with industrial solvents, benzene, and other chemicals. The Caring for Camp Lejeune Families Act of 2012 recognized exposure and treatment for veterans and family members for 15 specific diseases.

In 2017, by regulation, the Secretary established eight presumptive diseases for active duty, reservists, and National Guard members who were stationed at Camp Lejeune for 30 aggregate days. These presumptives were established over sixty years from the first date of exposure and thirty years after the date of last exposure.

## **Airborne Hazards and Open Burn Pits**

Veterans who served in Southwest Asia during the first Persian Gulf War as well as those serving in those locations, including Afghanistan after 9/11, have been exposed to the large scale use of burn pits.

DOD has acknowledged the vast use of burn pits to dispose of nearly all forms of waste. Several studies have indicated that veterans were exposed to burned waste products including, but not limited to: plastics, metal/aluminum cans, rubber, chemicals (such as paints, solvents), petroleum and lubricant products, munitions and other unexploded ordnance, wood waste, medical and human waste, and incomplete combustion by-products. The pits did not effectively burn the volume of waste generated, and smoke from the burn pit blew over bases and penetrated all living areas/quarters.

DOD has performed air sampling at Joint Base Balad, Iraq and Camp Lemonier, Djibouti. Most of the air samples have not shown individual chemicals that exceed military exposure guidelines. The air sampling performed at Balad and discussed in an unclassified 2008 assessment tested and detected all of the following: (1) Particulate matter; (2) Polycyclic Aromatic Hydrocarbons (PAH); (3) Volatile Organic Compounds; and (4) Toxic Organic Halogenated Dioxins and Furans (dioxins).

In 2011, the National Academies issued their report, "Long-Term Health Consequences of Exposures to Burn Pits in Iraq and Afghanistan." The committee reported:

On the basis of a review of the epidemiologic literature, the committee concluded that there is inadequate/ insufficient evidence of an association between exposure to combustion products and cancer, respiratory disease, circulatory disease, neurologic disease, and adverse reproductive and developmental outcomes in the populations studied. However, there is limited/suggestive evidence of an association between exposure to combustion products and reduced pulmonary function in the populations studied. The committee further concluded that additional study of health effects specifically in OEF and OIF veterans is necessary.

The VA launched the Airborne Hazards and Open Burn Pit Registry in June 2014 to allow eligible veterans and service members to document their exposures and report health concerns through an online questionnaire.

Due to the thousands of veterans experiencing symptoms, illnesses, and diseases after their significant exposures in Southwest Asia, in September 2018, VA contracted with the National Academies to comprehensively review, evaluate, and summarize the available scientific and medical literature regarding the respiratory health

effects of exposure to airborne hazards encountered during service in the Southwest Asia theater of military operations.

### **“Respiratory Health Effects of Airborne Hazards Exposures in the Southwest Asia Theater of Military Operations”**

On September 11, 2020, National Academies publically released their report. In reference to exposures it states:

An airborne hazard is any chemical, physical, or biological agent in the air that has a potential to cause harm. There are numerous airborne hazards that military personnel may have experienced when deployed to Southwest Asia, including regional environmental exposures, such as air pollution from dusts, and local point and area sources, such as traffic, waste management, or local industries. Exposures related to military operations are also contributors, such as exhaust from heaters, military vehicles, and aircraft and smoke from structural fires, blasts, burning oil wells, and burn pits (VA, 2018). The exposures from military operations differ by conflict and vary by location and over time; for example, veterans of the post-9/11 conflicts are more likely to have been exposed to burn pits, whereas the 1990–1991 Gulf War veterans are more likely to have been exposed to smoke from oil-well fires. Additionally, some military personnel have occupations, job duties, or tasks that expose them to a variety of vapors, gases, dusts, and fumes. All these airborne hazards meet the definition of “hazard” in that they have the potential to cause harm and may influence the health of military personnel. The definition of “hazard” differs from “risk,” which is the probability that the hazard will cause harm and is a function of the extent of exposure (NRC, 1996).

The committee provided details of each of the respiratory diseases/conditions that were studied; however, there is only one positive conclusion by the committee, “the committee concludes that there is limited or suggestive evidence of an association between airborne hazards exposures in the Southwest Asia theater and subsequent development of respiratory symptoms.” While this does provide a positive association, it only links some respiratory symptoms and not diagnosed disease processes.

In conclusion, the report states, “although most of the committee’s conclusions fall under the category of “inadequate or insufficient evidence to determine an association,” it wishes to emphasize that this should not be interpreted as meaning that there is no association between respiratory health outcomes and deployment to Southwest Asia, but rather that the available data are, on the whole, of insufficient quality to make a scientific determination.”

The committee further states, “given these limitations in the current body of literature, the committee concludes that a new approach is needed that will allow

researchers to better examine and answer the question of whether certain respiratory outcomes are associated with deployment to Southwest Asia.”

The report concluded that there is insufficient data to establish a positive association. It further determined that additional research and different modalities are required. As illustrated by the other presumptive toxic exposures, it can take decades to establish the required scientific evidence for a positive association. However, veterans suffering from severe diseases and illnesses cannot afford to simply wait for the science to catch up to the airborne hazards known and recognized by DOD, VA and the National Academies.

Fortunately, as we noted earlier, there are two primary ways to establish service connection for diseases related to toxic exposures. We now know that presumptive service connection, due to a lack scientific association, is not likely at this time. However, that does not preclude establishing direct service connection. As proving exposure to airborne hazards and the specific toxins remains a challenge for veterans, Congress can lighten the burden of proof for direct service connection and pass legislation to concede exposure to burn pits and airborne hazards. Thousands of veterans with life threatening diseases should not have to wait for presumptives to be established—Congress can take action now and enact the concession of exposure.

### **Direct Service Connection and Concession of Exposure**

Currently there is not a presumptive service connection for burn pit and airborne hazards exposures, thus veterans must seek direct service connection for diseases related to burn pit exposures. As we noted, direct service connection requires:

- (1) evidence of a current disability or condition,
- (2) evidence of an event or a disease or injury in the military,
- (3) evidence of a medical link or opinion that the current diagnosed condition “is at least as likely as not,” related to the event in-service.

According to VA, from June 2007 through May 2020, it adjudicated 12,517 direct service connection claims for diseases related to burn pit exposure. Roughly 80 percent of those claims have been denied. Over 50 percent of the denials, were not allowed as there was no evidence of a medical link between the exposure in service and the disease.

Although VA, in their M21-1 manual, has recognized the actual toxins these veterans are conceded to have been exposed to, they have not shared this information with veterans. It is only provided for the examiner, if VA requests an examination. Thus, this does not allow veterans to develop evidence or a medical link as they are not aware of what they were exposed to.

A concession of exposure for direct service connection would still require a veteran to provide a diagnosis of a current condition; however, by conceding exposure of those who served in areas of active burn pits to certain chemicals and toxins, including those recognized in VA's M21-1 adjudication manual, the veteran would not have to provide personal evidence of exposure. This lowers the burden of proof on the veteran. This will still require veterans to have a medical opinion linking the condition to the exposure. With a concession of exposure to the known toxins, a physician will now have a better ability to provide a medical opinion.

A concession of exposure can lighten the burden of proof now and assist veterans in establishing direct service connection without having to just wait for potential presumptive service connection based on these exposures. There is legislation in the Senate and a proposed companion bill from this subcommittee, which can achieve this reform today.

### **Veterans Burn Pits Exposure Recognition Act**

The Veterans Burn Pits Exposure Recognition Act (S. 2950, draft House bill), which DAV was proud to help develop, would help overcome the current barriers for establishing direct service connection for diseases related to burn pits and airborne hazards.

The legislation would provide a concession of exposure for veterans who served in countries during periods with active burn pits, which have been confirmed by DOD. This includes the first Persian Gulf War as well as countries after 9/11 such as Afghanistan, Iraq, and Djibouti.

The legislation identifies and lists the toxins, chemicals, and airborne hazards to which each veteran would be conceded to have been exposed. This list is based on the air sample testing conducted by the U.S. Army in 2008, and mirrors the VA's adjudication manual acknowledged list. It is based on the same recognized and accepted lists by both DOD and VA and can be updated with future evidence and information.

If a veteran submits a claim for a disease related to these exposures and has insufficient medical evidence for VA to grant, the legislation requires VA to provide an examination with a request for an opinion to a link between the disability and the exposures. When providing the medical opinion, the examiner must consider the synergistic effect of all combined toxins through inhalation, dermal exposure, and ingestion.

These opinions cannot be simply based on the fact there are no currently recognized presumptive diseases. The Court of Appeals for Veterans Claims has held that an opinion as to etiology based only on the fact the disease is not a current presumptive, is a mere conclusion and inadequate. To be clear, direct service



connection for a disease related to individual exposures is not dependent on whether presumptive diseases have been established for an entire class.

Veterans have two paths for establishing service connection for diseases related to toxic exposures, presumptive and direct. As reported by the National Academies, presumptive service connection is not at this time plausible due to a lack of scientific association. Therefore, veterans must seek claims on a direct basis. As history has shown us, it can take decades for the scientific evidence required for presumptives and we cannot stand by and let thousands of veterans continue to suffer without access to VA health care and VA benefits. We feel strongly that Congress should take action now to establish a concession of exposure and lighten the burden of proof on veterans. We urge the subcommittee and the House to take up and pass the Veterans Burn Pits Exposure Recognition Act before the end of the year.

### **Exposed Veterans Need Access to Health Care**

Establishing a service-connected disability is often the gateway for veterans to access VA health care and benefits. However, the lack of access to VA health care for those exposed to burn pits and airborne hazards who have not yet established a service-connected disability, is a major concern. Combat veterans who were discharged or released from active service on or after January 28, 2003, are eligible to enroll in the VA health care system for five years from the date of discharge or release. However, this does not address many of the illnesses or diseases that can develop after the five-year period, such as cancers and multisystem diseases. Veterans exposed to burn pits, in many cases, have limited alternatives for health care beyond the established period.

To ensure access to health care for these veterans, we urge Congress to enact legislation to extend or eliminate the five-year period for VA health care for combat veterans or to extend eligibility for those exposed to burn pits. DAV supports H.R. 4137, the Jennifer Kepner HOPE Act as it would amend title 38, United States Code, Section 1710 to include VA health care for veterans exposed to burn pits.

### **Presumptive Processes Need Reform**

The presumptive processes and the presumptive decision-making process are not consistent among all of the different types of exposures; it varies from exposure to exposure. Which means that not all presumptive processes are the same when it comes to establishing concession of exposure, or in adding new diseases linked to the exposure, or requirements for additional studies, or requirements from the Secretary to act on adding new diseases linked to exposure.

We ask Congress to work with DAV and the VSO community to reform and create a presumptive process that is consistent, timely, and accountable for all type of exposures. As demonstrated in this testimony, many veterans exposed to toxins and hazards have waited decades for presumptive conditions to be established and many were lost before they were able to receive justice. As part of this reform, consideration

should be given to the idea of concession of exposure as a path to establish service connection for all future exposures instead of just waiting for the science to catch up.

Again, DAV thanks the Subcommittee for the opportunity to share our views on the burn pit and airborne hazard exposures in Southwest Asia. We look forward to working with you to improve health services and benefits for our nation's ill and injured veterans. I am happy to take any questions you or Members of the Subcommittee may have.