

intent to participate in the telephone conference call meeting must be made with Inez E. De Jesus. Ms. De Jesus can be reached at 1-888-912-1227 or 954-423-7977, or post comments to the Web site: <http://www.improveirs.org>. If you would like to have the TAP consider a written statement, please call 1-888-912-1227 or 954-423-7977, or write to Inez E. De Jesus, TAP Office, 1000 South Pine Island Rd., Suite 340, Plantation, FL 33324

The agenda will include the following: Various IRS issues.

Dated: August 20, 2007.

**John Fay,**

*Acting Director, Taxpayer Advocacy Panel.*

[FR Doc. E7-16721 Filed 8-23-07; 8:45 am]

BILLING CODE 4830-01-P

## U.S.—CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

### Notice of Open Public Hearing

**AGENCY:** U.S.-China Economic and Security Review Commission.

**ACTION:** Notice of open public hearing—September 6–7, 2007, University of North Carolina—Chapel Hill, NC.

**SUMMARY:** Notice is hereby given of the following hearing of the U.S.-China Economic and Security Review Commission.

*Name:* Carolyn Bartholomew, Chairman of the U.S.-China Economic and Security Review Commission.

The Commission is mandated by Congress to investigate, assess, evaluate, and report to Congress annually on “the national security implications and impact of the bilateral trade and economic relationship between the United States and the People’s Republic of China.” Pursuant to this mandate, the Commission will hold a public hearing in Chapel Hill, NC, at the University of North Carolina on September 6–7, 2007 on “*North Carolina: China’s Impact on the North Carolina Economy: Winners and Losers.*”

### Background

This event is the seventh in a series of public hearings the Commission will hold during its 2007 report cycle to collect input from leading experts in academia, business, industry, government and from the public on the impact of the economic and national security implications of the U.S. bilateral trade and economic relationship with China. The September 6–7 hearing is being conducted to examine the impacts of Chinese exports on North Carolina’s traditional clothing, textile, and furniture industries; the

effectiveness of North Carolina’s proactive measures to mitigate and adapt to Chinese competition; and to consider feedback and opinions from the people of North Carolina.

The hearing, entitled “*North Carolina: China’s Impact on the North Carolina Economy: Winners and Losers,*” will be co-chaired by Commissioners Jeffrey Fiedler and Dennis Shea.

*Open Microphone Session for Public Comment:* The hearing on Friday, September 7, 2007, will conclude with a discussion on the community impact of economic dislocations with an “open” microphone session for interested members of the public to voice their views. Registration for the open microphone session begins at 8 a.m. on Friday, September 7th with sign up available in the hearing room. Comments will be limited to 5 minutes for each participant.

Information on this hearing, including a detailed hearing agenda and information about panelists, will be made available on the Commission’s Web site prior to the hearing date. Detailed information about the Commission, the texts of its annual reports and hearing records, and the products of research it has commissioned can be found on the Commission’s Web site at [www.uscc.gov](http://www.uscc.gov).

Any interested party may file a written statement by September 6, 2007, by mailing to the contact below.

*Date and Time:* Thursday, September 6, 2007, 8:30 a.m. to 5 p.m. and Friday, September 7, 2007, 9 a.m. to 12 p.m. A detailed agenda for the hearing will be posted to the Commission’s Web site at [www.uscc.gov](http://www.uscc.gov) in the near future.

**ADDRESSES:** The hearings will be held in The Kenan Conference Center, Room 204 at the University of North Carolina—Chapel Hill campus on Skipper Bowles Road, Chapel Hill, NC 27599-1550. Public seating is limited to approximately 150 people on a first come, first served basis. Advance reservations are not required.

### FOR FURTHER INFORMATION CONTACT:

Kathy Michels, Associate Director for the U.S.-China Economic and Security Review Commission, 444 North Capitol Street, NW., Suite 602, Washington, DC 20001; phone: 202-624-1409, or via e-mail at [kmichels@uscc.gov](mailto:kmichels@uscc.gov).

**Authority:** Congress created the U.S.-China Economic and Security Review Commission in 2000 in the National Defense Authorization Act (Pub. L. 106-398), as amended by Division P of the Consolidated Appropriations Resolution, 2003 (Pub. L. 108-7), as amended by Public Law 109-108 (November 22, 2005).

Dated: August 20, 2007.

**Kathleen J. Michels,**

*Associate Director, U.S.-China Economic and Security Review Commission.*

[FR Doc. 07-4139 Filed 8-23-07; 8:45 am]

BILLING CODE 1137-00-M

## DEPARTMENT OF VETERANS AFFAIRS

### Determinations Concerning Illnesses Discussed in National Academy of Sciences Report on Gulf War and Health

**AGENCY:** Department of Veterans Affairs.

**ACTION:** Notice.

**SUMMARY:** As required by law, the Department of Veterans Affairs (VA) hereby gives notice that the Secretary of Veterans Affairs, under the authority granted by the Persian Gulf War Veterans Act of 1998, Public Law 105-277, title XVI, 112 Stat. 2681-742 through 2681-749 (codified at 38 U.S.C. 1118), has determined not to establish a presumption of service connection at this time, based on exposure to insecticides or solvents during service in the Persian Gulf during the Persian Gulf War, for any of the diseases, illnesses, or health effects discussed in the February 18, 2003, report of the National Academy of Sciences, titled “Gulf War and Health, Volume 2. Insecticides and Solvents.” This determination does not in any way preclude VA from granting service connection for any disease, including those specifically discussed in this notice, nor does it change any existing rights or procedures.

### FOR FURTHER INFORMATION CONTACT:

David Barrans, Attorney, Office of the General Counsel, Department of Veterans Affairs, 810 Vermont Avenue, NW., Washington, DC 20420, telephone (202) 273-6332.

### SUPPLEMENTARY INFORMATION:

#### I. Statutory Requirements

The Persian Gulf War Veterans Act of 1998, Public Law 105-277, title XVI, 112 Stat. 2681-742 through 2681-749 (codified at 38 U.S.C. 1118), and the Veterans Programs Enhancement Act of 1998, Public Law 105-368, 112 Stat. 3315, directed the Secretary to seek to enter into an agreement with the National Academy of Sciences (NAS) to review and evaluate the available scientific evidence regarding associations between illnesses and exposure to toxic agents, environmental or wartime hazards, or preventive medicines or vaccines to which service members may have been exposed during

service in the Persian Gulf during the Gulf War. Congress prescribed the inquiry it expected NAS to carry out in the event such an agreement was reached. Congress directed NAS to identify agents, hazards, medicines, and vaccines to which service members may have been exposed during service in the Persian Gulf during the Gulf War, but also directed NAS to consider a number of specific substances, including solvents and several insecticides used during the Gulf War. Congress mandated that NAS determine, to the extent possible: (1) Whether there is a statistical association between exposure to the agent, hazard, medicine, or vaccine and the illness, taking into account the strength of the scientific evidence and the appropriateness of the scientific methodology used to detect the association; (2) the increased risk of illness among individuals exposed to the agent, hazard, medicine, or vaccine; and (3) whether a plausible biological mechanism or other evidence of a causal relationship exists between exposure to the agent, hazard, medicine, or vaccine and the illness. These laws also require that NAS submit reports on its activities to the Veterans Affairs Committees of the U.S. Senate and House of Representatives and to the Secretary of Veterans Affairs every 2 years (as measured from the date of the first report) for a 10-year period.

Section 1602 of Public Law 105–277 provides that whenever the Secretary receives a report from NAS, the Secretary must determine whether a presumption of service connection is warranted for any illness covered by that report. The statute provides that a presumption will be warranted when the Secretary determines that there is a positive association (i.e., the credible evidence for an association is equal to or outweighs the credible evidence against an association) between exposure of humans or animals to a biological, chemical, or other toxic agent, environmental or wartime hazard, or preventive medicine or vaccine known or presumed to be associated with service in the Southwest Asia theater of operations during the Persian Gulf War and the occurrence of a diagnosed or undiagnosed illness in humans or animals. If the Secretary determines that a presumption of service connection is not warranted, he is to publish a notice of that determination, including an explanation of the scientific basis for that determination.

## II. The National Academy of Sciences Report

NAS issued its initial report, titled “Gulf War and Health, Volume 1. Depleted Uranium, Sarin, Pyridostigmine Bromide, Vaccines,” on September 7, 2000. In that report, NAS limited its analysis to the health effects of depleted uranium, the chemical warfare agent sarin, vaccinations against botulism toxin and anthrax, and pyridostigmine bromide, which was used in the Gulf War as a pretreatment for possible exposure to nerve agents. On July 6, 2001, VA published a notice in the **Federal Register** announcing the Secretary’s determination that the available evidence did not warrant a presumption of service connection for any disease discussed in that report. 66 FR 35702 (2001).

NAS issued its second report, titled “Gulf War and Health, Volume 2. Insecticides and Solvents,” on February 18, 2003. In that report, NAS focused on the health effects of insecticides and solvents that were shipped to the Persian Gulf during the Persian Gulf War. The pesticides considered by the NAS were organophosphorous compounds (malathion, diazinon, chlorpyrifos, dichlorvos, and azamethiphos), carbamates (carbaryl, propoxur, and methomyl), pyrethrins and pyrethroids (permethrin and d-phenothrin), lindane, and N,N-diethyl-3-methylbenzamide (DEET). NAS considered 53 solvents in 8 groups: aromatic hydrocarbons (including benzene), halogenated hydrocarbons (including tetrachloroethylene and dry-cleaning solvents), alcohols, glycols, glycol esters, esters, ketones, and petroleum distillates.

In its report, NAS organized its conclusions into five categories, representing different degrees of association between illness and exposure to insecticides or solvents. The categories NAS used are “Sufficient Evidence of a Causal Relationship,” “Sufficient Evidence of an Association,” “Limited/Suggestive Evidence of an Association,” “Inadequate/Insufficient Evidence to Determine Whether an Association Exists,” and “Limited/Suggestive Evidence of No Association.”

NAS found “Sufficient Evidence of a Causal Association” between chronic exposure to the solvent benzene and two diseases, acute leukemia and aplastic anemia. NAS found the criteria for its next-highest category, “Sufficient Evidence of an Association” satisfied for three associations: (1) Chronic exposure to benzene and adult leukemia; (2) chronic exposure to solvents and acute leukemia; and (3) exposure to the

solvent propylene glycol and allergic contact dermatitis resulting from sensitization to the compound and subsequent reexposure. NAS listed 16 findings in the category “Limited/Suggestive Evidence of an Association”: (1) Chronic exposure to tetrachloroethylene and dry-cleaning solvents and bladder cancer; (2) chronic exposure to solvents and bladder cancer; (3) chronic exposure to tetrachloroethylene and dry-cleaning solvents and kidney cancer; (4) chronic exposure to organophosphorous insecticides and non-Hodgkin’s lymphoma; (5) chronic exposure to carbamates and non-Hodgkin’s lymphoma; (6) chronic exposure to benzene and non-Hodgkin’s lymphoma; (7) chronic exposure to solvents and multiple myeloma; (8) chronic exposure to organophosphorous insecticides and adult leukemia; (9) chronic exposure to solvents and adult leukemia; (10) chronic exposure to solvents and myelodysplastic syndromes; (11) exposure to organophosphorous insecticides at doses sufficient to cause poisoning and long-term neurobehavioral effects (i.e., abnormal results on neurobehavioral test batteries and symptom findings); (12) chronic exposure to solvents and neurobehavioral effects (i.e., abnormal results on neurobehavioral test batteries and symptom findings); (13) high-level exposure to solvents and reactive airways dysfunction syndrome that would be evident with exposure and could persist for months or years; (14) chronic exposure to solvents and hepatic steatosis; (15) chronic exposure to solvents and chronic glomerulonephritis; and (16) exposure to insecticides and allergic contact dermatitis that results from sensitization to the compounds and subsequent reexposure.

NAS stated 48 findings in the category “Inadequate/Insufficient Evidence to Determine Whether an Association Exists,” and stated no findings in the category “Limited/Suggestive Evidence of No Association.” Additionally, NAS stated that it was unable to reach a consensus view with respect to nine exposure and disease, illness, or health effect associations it considered and therefore did not place them in any of the five categories.

Seventeen of the 21 associations in the highest three categories are limited to cases involving “chronic” exposure to the insecticides or solvents involved. Although its report does not define the term “chronic,” NAS stated that the studies it reviewed were primarily occupational studies, meaning studies of workers who were exposed to the

substances in question in the course of their employment, such as in a chemical plant or in a position requiring routine use of solvents or insecticides. Of the four remaining associations in those categories, one was limited to cases involving exposure to organophosphorous insecticides at doses sufficient to cause poisoning at the time of exposure and another involved an association between high-level exposure to organic solvents and reactive airways dysfunction syndrome which would be evident with exposure or shortly thereafter. The other two involve allergic contact dermatitis that would be present with exposure and may resolve with cessation of exposure.

### III. VA's Actions in Response to the Second NAS Report

After receiving and reviewing the second NAS report, VA determined that the report presented uniquely difficult issues as compared to the first NAS report and similar NAS reports provided to VA under the Agent Orange Act of 1991, Public Law 102-4. The second NAS report was unique in that the substances considered in that report were not substances used exclusively or predominantly in combat deployments or operations, but were substances commonly present in military and civilian life. It was also unique in that most of the associations NAS identified were limited to circumstances involving chronic occupational exposure to the insecticides and solvents in question, as distinguished from acute or subchronic exposures. Although the NAS report did not define the term "chronic," that term commonly means "marked by long duration" (Webster's Third New International Dictionary 402 (1976)) or "persisting over a long period of time" (Dorland's Illustrated Medical Dictionary 328 (38th ed 1994)). Further, virtually all of the health effects identified by NAS were previously well known.

VA determined that these circumstances raised questions concerning, among other things, whether exposure to these common substances during the Persian Gulf War differed significantly from exposures experienced by other military and civilian populations, and whether military personnel could be expected to have experienced "chronic" exposure to such substances during service in the Persian Gulf War. For that reason, and also because VA's determinations regarding the health effects of relatively common exposures might be viewed as having broader implications for public health policy, VA determined that it was necessary to seek additional

information before making its determinations under Public Law 105-277.

VA met with representatives of NAS and requested that NAS conduct an additional review to address issues pertaining to the correlation between exposures of different types and durations and the increased risk of health effects. Although NAS gave serious consideration to VA's request, it ultimately declined to provide any further information requested by VA.

### IV. VA's Determination

This notice conveys the Secretary's determination that a presumption of service connection is not warranted at the present time for any disease, illness, or health effect discussed in the NAS report, based on association with any substance known or suspected to be associated with service in the Gulf War. The Secretary has determined that there is not sufficient evidence available to support a conclusion that the insecticides and solvents covered in the NAS report are, in isolation, agents "known or presumed to be associated with service in the Southwest Asia theater of operations during the Persian Gulf War," for purposes of section 1602 of Public Law 105-277 (codified in pertinent part at 38 U.S.C. 1118(a)(2)(A) and (b)(1)(B)).

As an initial matter, we want to make clear that VA's determination does not in any way preclude VA from granting service connection for any disease, including those specifically discussed in this notice, nor does it change any existing rights or procedures. VA generally may grant service connection either on a "direct" basis or, in some circumstances, on a "presumptive" basis. "Direct" service connection means simply that the evidence in relation to a claim makes it as likely as not that a disease or injury was incurred or aggravated in service. "Presumptive" service connection means that a statute or regulation creates a special rule allowing VA to presume that a particular disease was incurred or aggravated in service even if the evidence does not directly establish that fact. Pursuant to 38 U.S.C. 1110, VA may grant direct service connection for any disease that was incurred or aggravated in service. Accordingly, if the evidence in connection with any benefit claim makes it as likely as not that a disease was caused or aggravated by exposure to insecticides or solvents in service, VA may grant service connection. As required by law, VA will assist claimants in obtaining evidence necessary to substantiate their claims. The recent NAS report does not limit

this authority in any way. In fact, the report itself may assist claimants seeking to establish service connection, by providing evidence linking certain diseases with exposure to certain insecticides and solvents. This notice is intended only to explain that VA will not, at this time, establish a new presumption of service connection for any disease.

Section 1602 of Public Law 105-277 requires presumptions of service connection for illnesses that have a "positive association with exposure to a biological, chemical or other toxic agent, environmental or wartime hazard, or preventive medicine or vaccine known or presumed to be associated with service in the Armed Forces in the Southwest Asia theater of operations during the Persian Gulf War." This standard refers to two distinct types of association necessary to a presumption. First, it must be determined that the agent, hazard, medicine, or vaccine is known or presumed to be associated with service in the Southwest Asia theater of operations during the Persian Gulf War. Second, it must be determined that an illness is associated with exposure to such agent, hazard, medicine, or vaccine. With respect to the first NAS report on Gulf War and Health, it was clear that the substances NAS considered (depleted uranium, sarin, vaccinations against botulism toxin and anthrax, and pyridostigmine bromide) were associated with service in the Persian Gulf during the Gulf War because the presence and use of those substances during such service was documented and resulted in exposures unique to veterans of such service. Accordingly, the notice of VA's determinations concerning that NAS report focused exclusively on the second element of association—i.e., the association between illnesses and exposure to the substances in question. With respect to the second NAS report, however, we believe it is necessary to address the threshold matter of whether the insecticides and solvents considered by NAS properly may be considered substances associated with service in the Southwest Asia theater of operations during the Persian Gulf War within the meaning of Public Law 105-277. In section 1603 of Public Law 105-277, Congress directed NAS to consider the health effects of solvents and several specific pesticides, although Congress did not provide an indication as to whether or how those substances were used in the Gulf War. NAS focused its review on solvents and pesticides that the Department of Defense shipped to the Persian Gulf during the Persian Gulf

War. As discussed below, however, there is insufficient information concerning the use of such solvents and pesticides during service in the Persian Gulf War upon which to conclude that veterans of such service may have encountered exposures unique to such service.

In contrast to the substances addressed in the first NAS report (depleted uranium, sarin, vaccinations against botulism toxin and anthrax, and pyridostigmine bromide), the insecticides and solvents that Congress identified in Public Law 105-277 and NAS discussed in the second report, are not unique to service in the Gulf War or to any particular period or location of service. Rather, those insecticides and solvents are prevalent in military and civilian life outside the Gulf War theater of operations. For example, the solvent benzene, which is included either by name or by general reference to "solvents" in 13 of the 21 findings in the 3 highest NAS categories of association, is 1 of the 20 most commonly produced chemicals in the United States and is present in many consumer solvents and paint products, gasoline, automobile exhaust, and tobacco smoke. Most Americans are exposed to small amounts of benzene on a daily basis through breathing air containing gasoline fumes, automobile exhaust, tobacco smoke, and industrial emissions. (Agency for Toxic Substances and Disease Registry (ATSDR), *Public Health Statement for Benzene* CAS#71-43-2 (U.S. Dept. of Health and Human Services, Public Health Service, ATSDR, Sept. 1997)). Dry-cleaning solvents are included in 12 of the 21 findings in the top 3 categories, either specifically or as a component of the general class of solvents. Military and civilian personnel who use dry cleaning services or reside near dry cleaning businesses are exposed to those substances. The solvent propylene glycol, which fits into 10 of the 21 findings in the top 3 categories, is present commercially in cosmetics and food and is used as a vehicle for drug delivery. Other solvents considered by NAS are commonly used in the United States as fumigants for food products, as flavoring agents, as components of antifreeze, brake fluids, deicing fluids, paints, typewriter correction fluid, cosmetics, lacquers, and adhesives, or as solvents available for household use in degreasing and cleaning. The NAS report notes that little information is available to characterize the use of solvents in the Gulf War. Military uses of solvents include vehicle maintenance, cleaning

and degreasing, and NAS noted that wartime use of solvents in these capacities probably paralleled stateside military or civilian uses, although operating conditions (such as ventilation and the use of masks) may have varied widely from stateside working conditions.

All insecticides shipped to the Gulf War had been approved by the U.S. Environmental Protection Agency or the U.S. Food and Drug Administration for general use in the United States at that time, although EPA has since placed restrictions on some of the insecticides used during the Gulf War. Most of those insecticides are available in consumer pest-control products sold for home use. The two insecticides distributed to service members during the Gulf War for individual use—DEET and permethrin—are common components of consumer insect repellents, and were not linked to any diseases in the top three NAS categories other than allergic contact dermatitis.

Of the 21 health effects NAS identified in its 3 highest categories, 17 are generally well known health risks of chronic occupational exposure to the insecticides and solvents in question. (The other four health effects are also generally well known, but are associated with certain non-chronic exposures.) For example, the fact that chronic occupational exposure to benzene is associated with an increased risk of aplastic anemia and acute leukemia is widely recognized. See 29 CFR 1910.1028 appendix A (summarizing known health effects of chronic benzene exposure). As NAS' findings indicate, an increased risk of disease may occur with chronic or sufficient exposure to the insecticides and solvents in question. Those conclusions are based on scientific studies of persons exposed to the insecticides and solvents in occupational settings involving the production or use of those substances, with frequent exposures for periods of years in most cases. Neither the NAS report, nor the scientific studies that NAS reviewed identify an increased risk of disease based on temporary or episodic exposure to the insecticides or solvents in question, except in particular circumstances of organophosphorous insecticide poisoning associated with long-term neurobehavioral effects, high-level solvent exposure associated with reactive airways dysfunction syndrome, and allergic dermatological reactions coincident with exposure to propylene glycol or insecticides. In briefing VA on its findings in February 2003, NAS indicated that it did not limit its inquiry to health effects of only chronic

exposure, but sought all available information on the health effects of exposure to the insecticides and solvents in question. Insofar as the NAS report states no conclusions as to whether many of the diseases discussed in the report are associated with less-than-chronic exposure to insecticides or solvents, we believe the absence of such findings most likely reflects the absence of study data sufficient to make any determination.

As indicated above, the insecticides and solvents considered by NAS were in common use in stateside military and civilian populations at the time of the Gulf War, not only with respect to workers occupationally exposed to those substances, but also with respect to the broader spectrum of persons exposed through use of consumer products, inhalation of polluted air, or other means. Sufficient data do not exist to show that exposure to those insecticides and solvents alone at levels below chronic occupational exposure or below levels sufficient to constitute poisoning is associated with the occurrence of disease, other than allergic contact dermatitis. Further, as explained below, VA believes that there is currently insufficient information available to indicate that the uses of insecticides and solvents during the Gulf War, or the risks associated with such exposure to such substances, differed in any substantial degree from the use of those substances in stateside military and civilian populations or the risk experienced by such stateside populations.

The Department of Defense (DoD) has indicated that the insecticides and solvents considered by NAS were shipped to the Persian Gulf during the Gulf War, but that relatively little information is currently available concerning the extent to which those substances were used. DoD has indicated that insecticides were used in the Gulf War for their ordinary purposes, including personal application by individual service members to their bodies and clothing, as well as area spraying by pesticide applicators. (OSAGWI (Office of the Special Assistant for Gulf War Illnesses), *Environmental Exposure Report—Pesticides. Final Report* (U.S. Department of Defense, OSAGWI, April 2003)). DoD concluded that most soldiers were likely exposed to some amount of insecticides and that military personnel whose occupational specialty involved pesticide spraying likely incurred greater amounts of exposures. DoD has indicated that the most thoroughly documented exposure to solvents occurred during the Gulf War

among service members assigned to apply chemical-agent-resistant coating (CARC) to military vehicles, as well as in the process of cleaning painting equipment and tools with solvents. (OSAGWI, *Environmental Exposure Report: Chemical Agent Resistant Coating, Final Report* (U.S. Department of Defense, OSAGWI, July 2000). DoD also indicated that not all personnel were trained in these processes and some may not have had all the necessary personal protective equipment (OSAGWI, 2000). NAS indicated that the wartime use of solvents, such as in vehicle maintenance and repair, cleaning, and degreasing, probably paralleled stateside military and civilian use of solvents, but acknowledged the possibility of wide variations in operating conditions.

DoD's Directorate for Deployment Health Support has prepared an "exposure assessment" designed to estimate the possible levels of insecticide exposures during the Gulf War. (OSAGWI 2003 at 42, 110). That assessment was based on information gathered from interviews with Gulf War veterans and exposure-scenario models based on methodologies used by the Environmental Protection Agency. *Id.* at 110–112. Among other things, DoD concluded that "[m]ost pesticide product exposures during the Gulf War were acute/subacute and subchronic; however, there were probably a small number of chronic exposures as well." *Id.* at 151. For purposes of that analysis, DoD defined chronic exposure as exposure lasting more than 180 days. DoD also stated that, "[i]n many cases, pesticide formulation exposures during deployment would have been very similar to exposures normally occurring in the U.S. at the time. On the other hand, there were certainly conditions existing some of the time that would have contributed to higher-than-normal, or otherwise unusual exposures for some servicemembers." *Id.* at 143. For instance, DoD indicated that higher exposures may have occurred in areas of extreme pest infestation or in the delousing of prisoners of war conducted by approximately 200 service members.

DoD also concluded that "It is likely that at least 41,000 service members overall may have had some overexposure to pesticides." *Id.* at 57. That conclusion was based in part on the results of a survey asking veterans to recollect their pesticide experiences 7 to 9 years after the fact. *Id.* at 111. DoD stated that its analysis involved significant levels of uncertainty, due to the lack of direct exposure data, and that it relied on assumptions that tended to overestimate exposures. *Id.* at 57, 111.

Further, DoD's conclusions regarding potential overexposures do not, in our view, clearly indicate that pesticide exposures in the Persian Gulf War differed significantly from other civilian and military populations. The largest group of potential overexposures identified by DoD consisted of approximately 30,500 veterans who "may have been at elevated risk for short-term health effects because of exposure to pest strips" containing the pesticide dichlorvos. *Id.* at 57. In the survey of Gulf War veterans, approximately 7% of veterans interviewed reported using or observing use of pest strips, and approximately 5% to 8% of those who had used pest strips reported using them in a manner exceeding the manufacturer's recommendation of one strip per 1000 cubic feet of space. (Fricker, RD *et al.*, *Pesticide Use During the Gulf War: A Survey of Gulf War Veterans* (Rand 2000)). DoD concluded that "[e]ven when dichlorvos-containing pest strips are used according to current label directions and military guidance, many personnel may be exposed to unhealthful levels" of dichlorvos. (OSAGWI 2003 at 65). DoD noted that its conclusion was similar to a finding by the Environmental Protection Agency's Office of Pesticide Programs, which found that all residential use of pest strips was of concern. *Id.* at 65. Pest strips have long been available for residential use in the United States, and DoD's finding does not suggest that Gulf War exposures to pest strips differed significantly from stateside exposures. The conclusion that use of pest strips in accordance with the label directions may cause overexposure would appear to be equally applicable to stateside use. DoD also noted that approximately 3,500 to 4,500 pesticide applicators probably made up one of the more highly exposed groups, and that as many as 7,000 service members may have been overexposed to pesticides as the result of spraying operations. *Id.* at 57. However, DoD also noted that "[m]ost pesticide product exposures during the Gulf War were acute/subacute and subchronic" rather than chronic in nature, and that "veteran interviews suggest that fewer than 10 veterans sought treatment for pesticide exposure." *Id.* at 56, 151. For these reasons, the DoD report's findings regarding possible overexposures during the Gulf War do not, in our view, establish that potential exposures to pesticides during the Gulf War differed significantly from exposures in other civilian and military populations. With respect to service members who were

exposed to pesticides due to their military occupation as pesticide applicators, we note that the potentially chronic nature of such occupational exposures, coupled with the findings in the NAS report and other medical literature documenting potential health effects of chronic exposure, as well as the effects of organophosphorous insecticide poisoning (acute cholinergic syndrome), may provide a sufficient basis for awarding direct service connection for such health effects under existing law.

Although there is little direct data on pesticide use in the Gulf War, we note that DoD had issued comprehensive directives and policies governing pesticide use. In a 1996 report, the Presidential Advisory Committee on Gulf War Veterans' Illnesses (PAC) noted that DoD policies and directives on pesticide use at the time of the Gulf War closely paralleled or exceeded those established by regulations of the Environmental Protection Agency and the Food and Drug Administration for domestic pesticide use.

(Presidential Advisory Committee on Gulf War Veterans' Illnesses: Final Report (Washington, DC, U.S. Government Printing Office, December 1996))

The PAC reported that, according to DoD policy, the majority of U.S. service members had access to two pesticides: Permethrin in a spray can (for treating uniforms) and DEET liquid or stick for use as a personal mosquito and fly repellent. By DoD policy, all other pesticides shipped to the Gulf region were to be used only by specifically trained pesticide applicators or for special applications. For example, lindane was apparently used by security personnel almost exclusively on Iraqi prisoners of war as a delousing agent. In contrast, no similar restrictions applied to home use of those pesticides within the United States. There is little information concerning the extent to which there may have been departures from DoD policy in particular instances during the Persian Gulf War.

The PAC also noted that only limited data exists on the exposure of Gulf War veterans to solvents, including benzene. The PAC described one study by the Centers for Disease Control and Prevention that involved chemical analysis of biological samples collected from troops or other personnel residing in Kuwait about two months after the cease-fire while the oil well fires were burning. (Etzel, RA and Ashley, DL, *Volatile Organic Compounds in the Blood of Persons in Kuwait During the Oil Fires*, International Archives of Occupational and Environmental

Health, 66:125–29, 1994). The study focused on possible exposure of U.S. military employees to the oil-well fire smoke, which is known to contain benzene. They reported that although blood levels of volatile organic compounds (VOCs) including benzene were higher in firefighters than in a reference population of U.S. civilians, DoD employees in nearby Kuwait City had VOC levels about the same or lower than the reference population. Benzene levels in the DoD employees in Kuwait City were about half those of the U.S. civilian reference population. This data is limited by small sample size, the short half-life of VOCs in service members' blood and the focus specifically on potential exposure from oil-well fires rather than overall environmental exposure. Nevertheless, the report stated that "VOC's are also widespread in the modern environment. Americans are exposed to numerous volatile organic compounds in the home and at work environment, but exposure to some of them was not prevalent in post-war Kuwait City, where many American personnel were temporarily housed in local hotel rooms."

The PAC report described a second relevant study conducted by DoD during the Gulf War, which among other things measured VOCs including benzene in blood samples collected from a group of U.S. service members before, during, and after their 1991 deployment to Kuwait. (U.S. Army Hygiene Agency, *Final Report: Kuwait Oil Fire Health Risk Assessment, 5 May–3 December 1991, Report No. 39–26–L192–91*, February 1994). The population studied in this report consisted of as many as 4,700 soldiers who were deployed from Germany to the Kuwait theater on or around September 20, 1991. Blood samples from a small subset of this group were taken before and after deployment, and during deployment in August 1991, and were analyzed for VOCs including benzene. Benzene levels were found to be slightly lower during deployment as compared to pre and post-deployment levels. Other solvents, including ethylbenzene, chlorobenzene, and styrene, were substantially elevated in predeployment blood samples when compared to reference levels in the United States. Some solvents, including ethylbenzene, xylene isomers, styrene, and toluene, were lower in the blood samples taken during deployment. Tetrachloroethylene levels were significantly higher in the blood samples taken during deployment. However, the mean level of the solvent in the blood was "orders of magnitude below those levels noted in

the literature as causing health effects with short term exposure." The report concluded that "the levels of VOCs measured in blood specimens of soldiers while in Kuwait are denotative of miniscule exposures" and that "[t]he exposure to most compounds that can be inferred from these measurements is, in fact, very similar to accepted U.S. normal background levels."

The limited data available do not provide a basis for concluding at this time that potential exposures to insecticides and solvents during the Gulf War differed significantly from potential exposures in other military and civilian populations at that time. We recognize the possibility that conditions of use may have varied in some circumstances, but we have insufficient evidence to infer that variations, such as those resulting from failure to use prescribed protective equipment, were common or resulted in exposures significantly different from those in other military and civilian populations. Although DoD noted that one pesticide (lindane) was used for the unique purpose of delousing enemy prisoners of war, it also noted that only about 200 service members engaged in that duty. Additionally, we do not believe that insecticide or solvent exposure during the Gulf War can be equated as a general matter with the type of chronic occupational exposure involved in most of the associations found by NAS. With respect to insecticides, as noted above, DoD has indicated that most exposures in the Gulf War were non-chronic. As in civilian populations, service members whose military occupation involved consistent exposure to insecticides or solvents may have incurred above-average exposures. The likelihood of such occupational exposures, however, is not unique to service in the Southwest theater of operations during the Persian Gulf War. As discussed below, any veteran who had chronic or sufficient exposure to insecticides or solvents during service may be eligible for direct service connection for the known health effects of such exposure, whether or not such service was in the Persian Gulf during the Gulf War.

Public Law 105–277 requires the Secretary to determine whether a presumption of service connection is warranted by reason of a disease having a positive association with exposure to a biological, chemical, or other toxic agent, environmental or wartime hazard, or preventive medicine or vaccine "known or presumed to be associated with service in the Armed Forces in the Southwest Asia theater of operations during the Persian Gulf War." Public

Law 105–277 1602 (codified in pertinent part at 38 U.S.C. 1118(a)(2)(A) and (b)(1)(B)). The statute does not explain the meaning of the phrase "known or presumed to be associated with service in the Armed Forces in the Southwest Asia theater of operations during the Persian Gulf War," and there is no legislative history explaining the meaning of that phrase.

We conclude that the statutory phrase "associated with service in the Armed Forces in the Southwest Asia theater of operations during the Persian Gulf War" is most reasonably construed to refer to a relationship between the substance or hazard and the specific circumstance of service in the Southwest Asia theater of operations during the Persian Gulf War, as distinguished from features of military or civilian life in general that are not unique to service in the Gulf War. The phrase "associated with" clearly connotes a direct relationship, and the requirement that the substance or hazard be associated with service at a particular time and place indicates an intent to distinguish between substances and hazards associated with general military or civilian life and those unique to service at the specified time and place. If civilian and military populations are commonly exposed to a substance, we believe it would be unreasonable to conclude that the substance is "associated with" service in the Persian Gulf during the Gulf War merely because it was present and used for its ordinary purpose, and exposures occurred in an ordinary way, during such service. We do not believe that Congress intended VA to establish presumptions for the known health effects of all substances common to military or civilian life. Rather, the requirement that the substance be "associated with" Gulf War service makes clear that VA's task is to focus on the unique exposure environment in the Persian Gulf during the Persian Gulf War.

This reading of the statutory language comports with the clear purpose of both Public Law 105–277 and Public Law 105–368. Both statutes reflect the Government's commitment to addressing the unique health issues presented by Gulf War veterans, by establishing a process for identifying diseases and illnesses that may be associated with Gulf War Service. It is by now well known that many Gulf War veterans have reported a variety of similar symptoms that cannot presently be identified with a known diagnosis or cause and that were not considered "diseases" for the purposes of the statutes generally authorizing VA to pay compensation for service-connected

disability or death due to disease or injury. Congress responded initially to that situation by authorizing VA to pay compensation for "undiagnosed illness" in such veterans. The process established by Public Law 105-277 and Public Law 105-368 reflects a further effort to bridge the existing gaps in medical and scientific knowledge and to ensure that Gulf War veterans may obtain compensation for diagnosed or undiagnosed illnesses that may have been caused by the unique exposures or hazards of service during the Gulf War. Establishing presumptions of service connection for illnesses associated with exposures or hazards specifically related to Gulf War service obviously would further that objective. In contrast, establishing presumptions of service connection for the exclusive benefit of Gulf War veterans based solely on the well-known health effects of exposures shared in common with the general veteran population would not significantly further the purposes of those statutes. Moreover, establishing such presumptions would create significant inequities in the veterans' benefits system that Congress could not have intended.

Public Law 105-277 requires VA to establish presumptions of service connection, when the statutory requirements are met, exclusively for veterans who served in the Southwest Asia theater of operations during the Persian Gulf War. If the statute were construed to require presumptions based on exposure in the Persian Gulf War to substances to which other veterans serving at other times and places are commonly exposed at similar levels, it would raise significant concerns of fairness and reasonableness. For example, veterans exposed or presumably exposed to insecticides during the Gulf War might be entitled to presumptive service connection for certain diseases associated with insecticide exposure, while veterans who served stateside and had equal or greater insecticide exposure—including veterans who served as pesticide applicators—would not be entitled to presumptive service connection for those diseases. Similarly, veterans exposed or presumably exposed to benzene during Gulf War service might be entitled to presumptive service connection for acute leukemia or other disease by virtue of such exposure, while veterans exposed to benzene during service at other times or places would not be entitled to presumptive service connection for the same diseases, even though they may have had significantly greater potential for

benzene exposure due to their military occupation (e.g., as a mechanic). The fact that most service members, and most civilians, routinely incur some degree of background exposure to benzene and certain other substances NAS considered in accordance with Public Law 105-277 further underscores the arbitrariness that would attach to establishing presumptions for a limited class of veterans based on such common exposures.

Apart from the fact—discussed in greater detail below—that it is generally unnecessary to establish presumptions of service connection for health effects that are well documented in the medical literature, establishing presumptions applicable only to a small percentage of the veteran population potentially exposed to the relevant substances would have significant adverse effects on the veterans benefits system. Providing by statute and regulation for the disparate treatment of similarly situated veterans would substantially undermine confidence in the objectivity and fairness of the veterans benefits system. Additionally, establishing different adjudicative rules for the claims of similarly situated veterans without any reasoned basis for the distinction would undoubtedly cause confusion to the VA personnel responsible for deciding claims, as well as to veterans and their representatives in presenting and supporting their claims.

We do not believe that Congress intended VA to establish presumptions unique to Gulf War veterans based on the well-known health effects of exposures common to military and civilian life outside the Gulf War theater of operations. As explained above, the language and purpose of Public Law 105-277 and Public Law 105-368 indicate that Congress did not intend such a result, and we believe it is reasonable to presume that Congress did not intend arbitrary or unfair distinctions. We note that statutes generally must be construed to avoid serious constitutional concerns. See *Edward J. DeBartolo Corp. v. Florida Gulf Coast Building & Construction Trades Council*, 485 U.S. 568, 575 (1988). We cannot say it is beyond Congress' power to establish presumptions exclusively for Gulf War veterans based on exposures not known to differ significantly from service outside the Gulf War. However, the apparent unfairness, in our view, of that result supports the conclusion that Congress did not intend such a result.

We recognize that even common substances might be used in certain circumstances, such as in combat

situations, in an uncommon manner that may create a unique risk. As explained above, however, there is presently insufficient evidence to indicate that the solvents or insecticides considered by NAS were used in the Gulf War in a manner that differed significantly from their usage in other military and civilian populations. Of course, if evidence is found indicating that insecticide or solvent use during the Gulf War differed significantly in kind or degree from use elsewhere in military service or civilian life, such information could provide a basis for concluding that such insecticides or solvents are substances associated with service in the Persian Gulf during the Gulf War.

We also recognize that Public Law 105-277 and Public Law 105-368 both required NAS to consider the health effects of exposure to insecticides and solvents as part of its investigations of illnesses potentially associated with Gulf War service. However, the direction to consider those substances does not compel the conclusion that those substances, considered in isolation, are themselves agents "known or presumed to be associated with service in the Southwest Asia theater of operations during the Persian Gulf War" for purposes of VA's duty to establish presumptions of service connection. Section 1603 of Public Law 105-277 describes the scope of NAS' inquiry. Section 1603(c)(1) directs NAS to "identify the biological, chemical, or other toxic agents, environmental or wartime hazards, or preventive medicines or vaccines to which members of the Armed Forces who served in the Southwest Asia Theater of operations during the Persian Gulf War may have been exposed by reason of such service." Section 1603(d) of that statute provides that, in identifying substances to which Gulf War veterans "may have been exposed," NAS will consider, among other things, solvents and several specifically enumerated pesticides. In contrast, section 1602 of Public Law 105-277 does not direct the Secretary to establish presumptions of service connection for the health effects of every substance to which Gulf War veterans "may have been exposed," but requires presumptions only for the health effects of exposure to substances known or presumed to be "associated with" service in the Gulf War. Congress used different language in section 1602 and 1603 of Public Law 105-277, and we must conclude that the different language was intended to have different meanings. See *Bank of America National Trust & Savings Ass'n v. 203*



*N. LaSalle St. Partnership*, 526 U.S. 434, 450 (1999); *Russello v. United States*, 464 U.S. 16, 23 (1983). Congress reasonably defined the scope of NAS' inquiry broadly, to include consideration of all substances to which veterans may have been exposed during the Gulf War, irrespective of whether the exposures were unique to Gulf War service or common to all service. In defining VA's regulation-writing obligations, however, Congress reasonably required VA to establish presumptions of service connection only for the health effects of substances that are "associated with" Gulf War service. As noted above, that limitation furthers Congress' purpose of establishing presumptions for the unique health concerns of Gulf War veterans and also avoids the inequity of establishing presumptions exclusively for Gulf War veterans based on exposures that are common to most veterans.

Although the Secretary has determined that presumptions of service connection cannot be made at this time for the health effects of exposure to insecticides and solvents discussed in the NAS report, we want to make clear that this determination will not preclude the granting of service connection for those health effects. The health effects which NAS found to be supported by sufficient or limited/suggestive evidence are generally well-known health effects of exposure to the insecticides and solvents in question and were documented in the medical literature prior to the NAS' review, which essentially summarizes and synthesizes the existing literature. The established associations between insecticide or solvent exposure and

certain diseases provide a sufficient basis for examining physicians and VA adjudicators to determine whether a veteran's disease is associated with exposure to insecticides or solvents in service. As noted, the insecticides and solvents discussed in the report generally are not associated with diseases unless the exposure was chronic in nature or due to organophosphorous insecticide poisoning. If any veteran had chronic or sufficient exposure to the insecticides or solvents in question, as may occur where the veteran worked as a mechanic or pesticide applicator in service, and developed a disease associated with such exposure, the veteran could pursue a claim for direct service connection regardless of the existence of a presumption. Additionally, insofar as certain NAS findings relate to conditions that would be present concurrent with exposure, as in the case of allergic contact dermatitis, acute pesticide poisoning, and reactive airways dysfunction syndromes, the fact that such conditions are observable at the time of exposure in service would ordinarily be sufficient to establish service connection, irrespective of any presumption.

We note further that our conclusion that the solvents and insecticides in question, in isolation, cannot at this time be determined to be "associated with" Gulf War service is not intended to suggest that they are irrelevant to further investigations of Gulf War veterans' health or that they may not in any circumstance form the basis for presumptions of service connection under Public Law 105-277. Several authorities, including NAS, have noted the possibility that the synergistic

effects of exposure to multiple substances could lead to risks that would not be associated with exposure to the substances individually. NAS noted the existence of two studies suggesting that combined exposure to pyridostigmine bromide and certain pesticides may produce greater neurotoxicity than exposure to comparable doses of those substances individually. A 1996 report of the Presidential Advisory Committee on Gulf War Veterans' Illnesses and a 2003 Report from DoD's Office of the Special Assistant for Gulf War Illnesses suggested the need for further research on the possible effects of such multiple exposures. (OSAGWI 2003); (Presidential Advisory Committee on Gulf War Veterans' Illnesses 1996). In the event future evidence links any illnesses to a combination of exposures associated with Gulf War service, whether or not including exposure to insecticides or solvents, VA may establish presumptions of service connections for such illnesses pursuant to Public Law 105-277.

#### IV. Conclusion

For the reasons stated above, the Secretary has determined that a presumption of service connection is not warranted at this time for any of the diseases, illnesses, or health effects discussed in the NAS report issued on February 18, 2003, titled "Gulf War and Health, Volume 2. Insecticides and Solvents."

Approved: August 17, 2007.

**R. James Nicholson,**

*Secretary of Veterans Affairs.*

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