House Armed Services Committee 2216 Rayburn House Office Building Washington, D.C. 20515

Dear Chairman Adam Smith and Ranking Member Mac Thornberry:

The below health and research related groups write to request you cosponsor and support the inclusion of the *Burn Pits Accountability Act ("BPAA")* (H.R. 663) in the text of the 2020 National Defense Authorization (NDAA) bill. This bill will provide vital information to the research community as they investigate the possible health impacts of burn pit exposure.

As a way to deal with waste on military bases without other infrastructure, burn pits were widely used in Iraq and Afghanistan during the early part of this century. As the result of burn pit use, millions of military members have been exposed to varying degrees of burning plastics, medical wastes, drugs, paint, feces, pesticides, and other trash. Through its 2010 defense authorization bill, Congress prohibited the use of burn pits except when there is no feasible alternative. The use of burn pits continued for years following the ban, and they are used today.

The BPAA requires the Secretary of Defense to ensure that relevant military health evaluations include an assessment of whether a member was exposed to toxic airborne chemicals or stationed at a base where burn pits were used. It also enrolls eligible members in the *Airborne Hazards and Open Burn Pit Registry ("registry")* unless they opt out. The registry was mandated by law in 2012, established in 2014, and is currently voluntary.

Several studies have attempted to estimate the possible impacts of exposure and others are underway. For example, a study found a higher rate of asthma among service members stationed near burn pits compared with those stationed where no burn pits were present. Another study found associations between asthma and oil well fire smoke among service members deployed in the Gulf War. A study found that smoke from burn pits in Iraq and Afghanistan contained chemicals associated with cancers, lung diseases, cardiovascular disease, kidney disease, and neurological disorders in related populations. Indeed, a regulation from the Department of Defense's United States Central Command confirms, burn pits give off toxic fumes that can affect the life, health and safety of base camps and personnel.

Studies of similar exposures in non-military populations offer clues about possible health impacts as well. According to the U.S. Environmental Protection Agency, burned waste emits harmful toxins that contribute to respiratory disease, kidney disease, liver disease, developmental diseases, and cancer.* Burn pit related particulate matter is associated with a wide range of health impacts, including increased degenerative neurological diseases like

Parkinson's disease, xi xii lung issues, increased chemical sensitivity, and increased rates of cancer. xiii

As of January 2019, about 166,000 veterans or about 4.7% of the approximately 3.5 million eligible service members are enrolled in the registry. **iv** The VA estimates 10-year participation at approximately 10%. **v** Information gleaned from the registry has resulted in several published papers, including one showing an increased risk of respiratory and cardiovascular conditions, but more research is needed on a bigger population. **v** Notably, people who seek out and willingly sign up for a registry are likely to be different in unexpected ways from those that do not. Enrolling additional service members in the registry will make findings from the population more robust and applicable to all exposed service members. Additionally, some diseases take decades to develop following exposure, and it is impossible to know the full breadth of impacts until decades have passed. The registry will facilitate researchers' ability to reach out to impacted service members in the future.

Through increased enrollment in the registry and additional information sharing, this legislation will provide researchers with more information about those who were exposed to burn pits and their health outcomes for years to come. Much more work is needed to ensure veterans who were exposed to burn pits are adequately identified and treated, but this bill is an important start. Please support this bill and its inclusion in the NDAA as soon as possible.

Signed,

Action to Cure Kidney Cancer Allergy & Asthma Network Alliance of Nurses for Healthy Environments American Lung Association American Medical Association American Psychological Association American Public Health Association American Thoracic Society Bladder Cancer Advocacy Network (BCAN) **Breast Cancer Prevention Partners** Go2Foundation for Lung Cancer, formerly Lung Cancer Alliance **Kidney Cancer Coalition** National Center for Environmental Health Strategies The American Autoimmune Related Diseases Association (AARDA) The Michael J. Fox Foundation for Parkinson's Research **Tuberous Sclerosis Alliance Veterans for Common Sense**

https://archive.epa.gov/epawaste/nonhaz/municipal/web/html/health.html. (last visited Apr 18, 2019)

- ^{xii} Lilian Calderón-Garcidueñas et al., Long-term Air Pollution Exposure Is Associated with Neuroinflammation, an Altered Innate Immune Response, Disruption of the Blood-Brain Barrier, Ultrafine Particulate Deposition, and Accumulation of Amyloid 6-42 and α -Synuclein in Children and Young Adults, 36 Toxicologic Pathology 289-310 (2008).
- xiii C. M. Wong et al., *Cancer Mortality Risks from Long-term Exposure to Ambient Fine Particle*, 25 Cancer Epidemiology Biomarkers & Prevention 839–845 (2016).
- xiv Department of Veterans Affairs. VA's Airborne Hazards and Open Burn Pit Registry available at: https://www.publichealth.va.gov/exposures/burnpits/registry.asp
- ^{xv} David A. Savitz, Anne N. Styka & David Alan Butler, Assessment of the Department of Veterans Affairs Airborne hazards and open burn pit registry (2017). Available at:

http://nationalacademies.org/hmd/Reports/2017/Assessment-of-the-VA-Airborne-Hazards-and-Open-Burn-Pit-Registry.aspx

xvi Jason Liu et al., Burn Pit Emissions Exposure and Respiratory and Cardiovascular Conditions Among Airborne Hazards and Open Burn Pit Registry Participants, 58 Journal of Occupational and Environmental Medicine (2016).

¹ Institute of Medicine (U. S.), Long-term Health Consequences of Exposure to Burn Pits in Iraq and Afghanistan Chapter 2 (Current and Historical Uses of Burn Pits in the Military) (2011).

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[&]quot;National Defense Authorization Act for Fiscal Year 2010, Pub. L. No. 111-84: 3, §317.

^{iv} U.S. troops burned waste in hazardous open pits while safer incinerators sat idle – Center for Public Integrity, Center for Public Integrity (2018), https://publicintegrity.org/national-security/u-s-troops-burned-waste-in-hazardous-open-pits-while-safer-incinerators-sat-idle/ (last visited Apr 16, 2019).

^v Establishment of the Airborne Hazards and Open Burn Pit Registry, 79 Fed. Reg. 36142 (June 25, 2014).

vi Joseph H. Abraham et al., A Retrospective Cohort Study of Military Deployment and Postdeployment Medical Encounters for Respiratory Conditions, 179 Military Medicine 540–546 (2014).

vii David N. Cowan et al., A Case-Control Study of Asthma among U.S. Army Gulf War Veterans and Modeled Exposure to Oil Well Fire Smoke, 167 Military Medicine 777–782 (2002).

viii Institute of Medicine (U. S.), Long-term Health Consequences of Exposure to Burn Pits in Iraq and Afghanistan Chapter 2 (Current and Historical Uses of Burn Pits in the Military) (2011).

^{ix} Environmental Quality CENTCOM Contingency Environmental Guidance: Regulation Number 200-2. MacDill Air Force Base, FL: US Headquarters United States Central Command; 2006.

^{*} Human Health, Backyard Burning EPA,

xi Rui Liu et al., Ambient Air Pollution Exposures and Risk of Parkinson Disease, 124 Environmental Health Perspectives 1759–1765 (2016).