

The Preventive Measure

FALL 2018

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2018 Leadership

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Greetings! As we have breezed past Fall where it feels more like Winter, I hope this newsletter finds you and your family well.

With the arrival of Fall, we have the announcement of our annual Fall Educational Conference. We hope you will join us on November 1st at the Food and Drug Administration Building in College Park to network and enjoy some educational presentations!

I can't believe the year is almost over and I have been in this position for two years. In addition to planning the Fall Educational Conference, the Board has begun the process of planning for our **2019 Elections**. Open for election are the positions of **President, VP of Programs & Professional Advancement, and VP of Membership**. We encourage all members interested in serving in one of these capacities, or merely interested in expanding your role with NCAEHA, to express your interest or share your questions with myself at NCAEHA.President@gmail.com. Further information on the duties of the positions open for election may be found on our website by accessing our bylaws through the homepage, www.ncaeha.org.

As part of our strategic plan, the Board is also working hard on planning the **Winter and Spring Educational Conferences** for 2019 in Virginia and Washington, DC. So please keep your eye out for those agendas. As always, we welcome topic and speaker suggestions!

The Board is currently looking for a professional in the field of environmental health, who lives and/or works in Maryland to serve as our **Maryland Representative**. If interested, please contact me at NCAEHA.President@gmail.com. Duties of the position may be found on our website as well (By-Laws on the homepage).

I would also like to take this opportunity to highlight this year's **Annual Awards Dinner**, hosted at the JR's Stockyards Inn on October 4th. NCAEHA Members gathered to enjoy an evening of great food, NCAEHA and NEHA updates, and to recognize their peers who were honored with the Jerrold M. Michael Environmental Health Professional of the Year Award, James M. Wordsworth Scholarship, and the NEHA Certificate of Merit Awards (Individual and Team). Please join us in congratulating our award and scholarship recipients: **Ivory Gene Cooper** - DC Health, **Hillary Craddock Kelbick** - University of Maryland, **Temesgen Jemaneh** - DC Health, as well as **Shannon McKeon and Chuti Nakronsri** - Fairfax County Health Department. A short summary of some of their accomplishments may be found on the last page of the NCAEHA Annual Report (referenced in this issue and linked on our website).

I look forward to seeing many of you on November 1st for another exciting conference. As always, please let myself or any member of the Board know of any thoughts or suggestions you may have on how we may better serve you.

Best Regards, *Kristen Pybus*



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Congratulations to our 2018 Scholarship and Award Winners!

Jerrold M. Michael Award

Ivory Gene Cooper
Sanitarian,
DC Health

James M. Wordsworth Scholarship

Hillary Craddock Kelbick, MPH
UMD - PhD Candidate,
Environmental Health



NEHA Certificate of Merit, Individual

Temesgen Jemaneh, PhD
Sanitarian,
DC Health

NEHA Certificate of Merit, Team

Shannon McKeon & Chuti Nakronsri, MPH
(STAMP Program Team),
Fairfax County Health Department



Now What? A Tool to Help Commercial Fishermen Encountering Sea-Disposed Chemical Munitions

CDR Danielle Shirk Mills, MPH, RS/REHS, GA-CEM, EMHP
CDC National Center for Environmental Health
November 2018

NCAEHA provides opportunities for practitioners and other professionals in Environmental Health to advance their professional growth through educational programs. The Association encourages cooperation between private and public sectors in activities directed toward the improvement of public health and the environment.

Before the 1970s, disposal of excess, obsolete, or unserviceable munitions at sea was common. (Photo 1). It was believed that the vastness of ocean waters would neutralize chemical agents that might have leaked from these weapons. Sea-disposal operations included the disposal of conventional munitions of every type and chemical munitions with various chemical agent fills. Commercial fishing, clamming, and dredging operations can stir up these munitions and they can be encountered anywhere at sea, not just charted hazardous areas.

There is now increasing concern about environmental and human health effects associated with the disposal of these agents both on land and in the ocean. Environmental health practitioners, especially those along coastal areas, should be aware that these incidents are occurring. Since 2004, the Centers for Disease Control and Prevention (CDC) has been notified of several incidents in which personnel were exposed to chemical agents associated with recovered sea-disposed chemical munitions. Several of the reported incidents resulted in toxic chemical agent contamination/injuries to workers involved in commercial clam fishing operations. All incidents involved World War I-era blister agents recovered from previously unknown sea disposal locations off the U.S. East Coast. The first incident was the result of harvesting clamshells for the use as aggregate in concrete and for driveways on the eastern shore of Delaware in 2004. A military explosive ordnance disposal (EOD) technician developed substantial blistering (Photo 2) after responding to an incident off base in which an unknown projectile was recovered and destroyed by detonation (Fendick et al., 2013).

In 2010, commercial fishermen recovered an unknown number of munitions while dredging for clams off the coast of Long Island, New York. During the effort to dump

the munitions back in the ocean, a munition fell on the deck of the boat, releasing a black liquid substance. Drops of the substance also landed on the clothing covering the leg and arm of a crew member. After several hours, two crew members felt ill and were transported to a local hospital for evaluation. One was evaluated and released, while the other developed small blisters on his forearm and upper thigh. These injuries were recognized as sulfur mustard exposure by a nurse trained in chemical agent injuries. Exposure was confirmed by chemical analysis (Fendick et al., 2013).

In 2012, a 75-mm projectile was recovered at a clam processing plant in Delaware. It was reportedly brought to the plant accidentally during dredging operations for clams in Delaware Bay. An EOD team removed the munition for disposal. The munition contained mustard agent. None of the potentially exposed persons developed signs or symptoms of exposure to mustard. Clam fishermen told investigators that they routinely recover munitions that often “smell like garlic,” a potential indication of a chemical agent (Massachusetts Department of Environmental Protection, 2010).

In 2016, an ocean clammer was sorting through clams on an ocean clamming vessel and was exposed to a liquid-like substance while dislodging a rock or object that had clogged the hopper of the vessel. He developed blistering symptoms but did not present to a medical care center until 36 hr later. Due to his significant burns—reportedly 7–8% of the skin surface on his shoulder and arms—he was transferred to a burn unit in Philadelphia where the injury was recognized as a burn consistent with mustard exposure (The Maritime Executive, 2016). In 2017, a fisherman was exposed to a suspected chemical warfare agent in an event that closely mirrored the 2016 event.

CDC has concerns for the health of fishermen who might be exposed when munitions are dredged up with clams and other bottom dwelling sea life (Photo 3). CDC started an interest group for stakeholders, including the U.S. Coast Guard and federal and state departments of health and environment, to discuss responses to these incidents and help improve future responses. The goals were to protect fishermen, improve recognition in treatment facilities, and improve the public health network notification.

Working with interest group partners, CDC recently introduced a new tool for the fishing industry designed to be helpful when chemical munitions are encountered. It lays out a sequence of personal protection, disposal, and after-event monitoring. The tool also provides guidance regarding what to do starting from the point that a munition is

inadvertently brought aboard. The tool concisely covers four things important to protecting the health of fishermen who could encounter these munitions: 1) disposal overview, 2) protective equipment donning and doffing, 3) nine-step emergency disposal procedure, and 4) symptoms and healthcare provider card. It even includes a “take me with you to your healthcare provider” card with useful information about signs, symptoms, and chemical testing.

The tool can be found at www.cdc.gov/nceh/demil. Next steps include preparing personal protective equipment (PPE) kits and training resources for fishermen, as well as for medical providers who could treat the resulting exposures. The expanding use of the world’s oceans, and particularly its coastal zones, requires not only an increased awareness of both chemical and conventional munitions in the sea but also increased response and medical treatment capabilities.



Photo 1. Conducting sea disposal operations. Photo courtesy of the U.S. Army.



Photo 2. Image of the burns to the hand of an explosive ordnance disposal airman exposed to mustard in 2004. Photo courtesy of the U.S. Army.



Photo 3. An unrecognizable munition brought up during ocean floor dredging. Photo courtesy of the U.S. Army.

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ARTICLE URL: <https://www.neha.org/sites/default/files/jeh/JEH11.18-Column-Direct-From-CDC-EHS.pdf>



JOIN NCAEHA OR RENEW YOUR 2019 MEMBERSHIP NOW



BENEFITS OF MEMBERSHIP:

- ✓ Be a part of a local association in the DC, MD, and VA area that is focused on environmental health (EH)
- ✓ Network with other local EH professionals in academia, industry, government, private sector, and other areas
- ✓ Advance your career by pursuing a credential or certification with our discounted annual courses like the REHS, CP-FS, CPO, and more
- ✓ Gain more knowledge and/or earn up to 15 Continuing Education hours per year by attending our nearby Educational Conferences
- ✓ Enjoy a good time with your EH colleagues and build new connections at our social events
- ✓ Recognize an EH professional by nominating them for an award or scholarship
- ✓ Pursue local EH employment opportunities with easy accessibility through our announcements
- ✓ Stay updated through our newsletter, website, and social media and announcements on other events, trainings, webinars, and more

Memberships will expire on December 31, 2018.
Regular Membership Renewal: \$20.00
Student and Silver Membership Renewal: \$5.00

Membership Renewal may be completed:
- Online at www.ncaeha.org/membership
- In person at the next Educational Conference

Payments are accepted in person via credit card, cash, check, or money order.



Appointment/Other Opportunities

Maryland Representative (Board Member): We are seeking a MD Rep that can assist in the hosting of the Fall 2019 Educational Conference in Maryland. Please see responsibilities and requirements in our By-Laws on ncaeha.org. Contact: NCAEHA.President@gmail.com

Communications Assistant (CA) (Volunteer): The Director of Communications is seeking an assistant to help with mass email communication, social media management, and some graphics /documents editing. Some experience/knowledge on health communications & design required. Need a CA with a sharp eye for visuals and modern graphic design. May potentially transition into Director of Communications. Contact: NCAEHA.DOC@gmail.com

Thanks for a Successful Fall Conference!

Thanks to our members and guests for joining us in **College Park, MD** on **11/1/18**, which featured *Tiffany-Johnson Wiggins, Kendra Washington, John Yetman, Jennifer Tucker, Ken Welch, Terry McGowan, Temesgen Jemaneh, and LCDR James Speckhart.*



Thank you for attending the
FALL 2018 EDUCATIONAL CONFERENCE

The 2017-2018 Annual Report is out!

Our Annual Report is available on ncaeha.org under **Publications** and under **Reports**. It includes reports on the:

- ▶ **President**
- ▶ **VP of Programs & Professional Advancement**
- ▶ **VP of Membership**
- ▶ **Secretary**
- ▶ **Treasurer**
- ▶ **VA Representative**
- ▶ **DC Representative**
- ▶ **MD Representative**
- ▶ **Director of Communications**
- ▶ **2018 Award Recipient Biographies**

Upcoming

Please keep a lookout in your email inboxes and social media for information on the next conference, **2019 Winter Educational Conference**, to be held in January 2019 in Northern Virginia. **Follow us at:** - www.ncaeha.org
- www.facebook.com/ncaeha
- www.twitter.com/ncaeha