

[00:00:05.040] - EH Nexus Host

Hello

[00:00:06.920] - EH Nexus Host

Everyone. Thank you for joining this episode of The Centers for Disease Control and Prevention's Environmental Health Nexus podcast, where we talk about environmental health topics. We are joined today by Mr. Terry Tincher, CDC's Chemical Demilitization Chief. During this episode, we will be talking about CDC's role in chemical demilitization in the United States.

[00:00:29.500] - Terry Tincher

Thank you for having me today.

[00:00:31.990] - EH Nexus Host

Terry, could you provide an overview of chemical demilitization and why it is important?

[00:00:38.530] - Terry Tincher

To answer the first part of your question, chemical demilitization is the safe destruction of the U.S. chemical weapon stockpile that consisted of over 30,000 tons of chemical warfare agents and recovered chemical weapons. During World War I, the United States started to make and store chemical weapons. This continued during and after World War II. However, the stockpile was never used. By the late 1960s, that stockpile became outdated and had to be disposed of. As far as the second part, chemical demilitizations is important to us because the longer munitions were left in storage, the greater the risk to the public due to the worsening condition of these chemical weapons. This worsening condition of the weapons could have resulted in an accidental release of these chemical agents of up to several miles. These materials or agents were stored across nine states in the United States, including just outside of major cities, near tribal lands, and within environmental justice areas. That is why we consider it incredibly important to have eliminated these stockpiles.

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Why is it important to educate the public on chemical demilitization?

[00:02:00.830] - Terry Tincher

It's important for the public to be informed so that they can understand the potential health risks impacting breathing, burns, paralysis, and even death that would occur if these chemical agents were accidentally released. Many of these locations were in places we would classify as environmental justice areas. The

information provided to the public helps them understand the risks and the actions being taken by the destruction sites to protect them from chemical threats.

[00:02:35.170] - EH Nexus Host

What's inside the chemical weapons that is dangerous to the public?

[00:02:39.280] - Terry Tincher

The major types of chemical agents that were destroyed were nerve agents, such as sarin and VX, which are highly toxic in very small amounts; and blistering agents, more familiar to people as Mustard, which can cause severe blistering on the skin. While these are the direct threats to the public if released, several of the agents, such as VX and Mustard, are considered persistent or long-lasting and pose an environmental, public health threat if they were dug up or if they were on materials people came in contact with.

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What prevention measures have been put in place to protect the public from chemical weapons?

[00:03:21.100] - Terry Tincher

Well, safety and health impacts were considered with input from the Chemical Demilitization Program in the very design of these plans. The Army worked with companies that developed NASA spacesuits to develop specialized protective clothing to protect the workers. The community was protected by several systems of high efficiency filters, carbon filters, and thermal devices that captured or destroyed the agents. Several special actions were taken to capture any vapor released during the opening of these chemical agent munitions. Chemical agent detectors were used to verify that no agent escaped the engineering controls that were used. CDC worked diligently with the sites to verify that the chemical agent monitoring was maintained and the actions and design used were protective of the environmental public health.

[00:04:19.730] - EH Nexus Host

Why are we celebrating the Chemical Demilitization Program's 40th anniversary?

[00:04:24.990] - Terry Tincher

Well, for 40 years, CDC's Chemical Demilitization Program provided recommendations to the U.S. Army and DOD, Department of Defense Chemical Weapons Elimination Program, and provided important guidance in ensuring the safe destruction of the chemical warfare material. The program's focus has been on prevention with vigilance. We have done this by reviewing, advising, and making recommendations on the Army's plans to destroy the stockpile and recover chemical weapons. As we have now reached our

anniversary, CDC will be celebrating by highlighting the achievements and milestones accomplished through the years. For instance, CDC developed guidance for fishermen when encountering chemical weapons recovered at sea during clam fishing. CDC also worked with the U.S. Environmental Protection Agency, or EPA, to correct and to create an effective sampling method to verify that there is no risk from chemical agents if chemical warfare incidents occurred on these vessels. Additionally, CDC is assisted on the elimination of the entire nerve agent VX stockpile and it's a threat to the public health. And finally, the destruction of the entire 30,000 tons of stockpile as of the first of July. These are just a few examples of what CDC has done to protect public health and worker safety during the last 40 years.

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What is CDC doing to celebrate the 40th anniversary?

[00:06:07.970] - Terry Tincher

Well, CDC is planning to recognize the efforts of the Department of Defense and the Program Executive Office, Assembled Chemical Weapons Alternative or we call it PEO ACWA for short, with the elimination of the major public health threat by the destruction of the 30,000 tons of chemical weapons this year. PEO ACWA is the organization that was created by the DOD to destroy the remaining weapons using chemical neutralization and to destroy the munitions with a thermal or heat treatment. The website will highlight success stories and the efforts to reach this important milestone. We have and will be posting on social media information about the history, and how we reached this milestone. We are considering a celebration for the 40th anniversary and the elimination of the public major health threat to those communities near the chemical weapon storage sites. More information will be revealed over the next few weeks as we approach and celebrate our anniversary.

[00:07:20.170] - EH Nexus Host

Who is CDC partnering or collaborating with for this initiative?

[00:07:25.760] - Terry Tincher

CDC works with the regional and state environmental protection agencies and health departments in those areas that have destroyed the stockpile. And federal agencies such as the EPA, the Federal Emergency Management Agency or FEMA, the Department of Defense and the Army, and the other chemical agent destruction programs to share the information on best practices. CDC has also worked with and provided information to the public and state agencies through the Chemical Demilitization Citizens' Advisory Commissions, or CACs, which conducted public meetings regularly. These were government-pointed commissions in each of the states that had the chemical weapons and were formed to serve as a bridge between the community and the government by providing a forum for exchanging information about chemical weapons disposal. These meetings have been open to all members of the public who are interested in learning more about the chemical weapons and destruction efforts. Because

each of these stockpiles of chemical weapons were completely destroyed, the CACs in those states ceased operations six months later.

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Where can the public find out more about this?

[00:08:48.560] - Terry Tincher

Well, one good place is to check out CDC's Chemical Demilitarization Program website at www.cdc.gov/n-c-e-h/d-e-m-i-l or "demil" to learn about the history of U.S. chemical weapons elimination, the chemical weapons that were eliminated, CDC's role in protecting public and environmental health and worker safety, and our program's 40th anniversary efforts. And check out CDC's Chemical Demilitization Program to find out more about PEO ACWA or go to their website at www.peoacwa.army.mil to learn more about their current activities.

[00:09:44.870] - EH Nexus Host

Thank you, Terry Tincher, CDC's Chemical Demilitization Chief for joining us today and for sharing this important information with us. And thank you all for listening to today's episode of the EH Nexus Podcast. Stay tuned for our upcoming episodes where we will continue to dive into all things environmental health.