

Pursuing the Proper Disposal of Outdated Weaponry

Forum: Disarmament Commission

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Introduction



Chemical weapons dumped in the ocean

From the past to the present, many people have disposed of outdated weapons, including chemical weapons, in the ocean. Because of this action, various aspects, including the environment have been extremely damaged. In particular, nowadays, concern among the public about the potential risks to human health, safety, and the marine environment are growing constantly, making the disposal of outdated weapons in the ocean a global issue.

One of the most representative weapons among outdated weapons are chemical weapons and nuclear weapons. These weapons used in many wars are consistently producing pollution even until today.

Therefore, many countries are mobilizing to solve this problem, and the United States has been working from the past to the present to solve the issue of the disposal of outdated chemical weapons in the oceans. According to a report from the United States Congress, they have stopped dismantling outdated chemical weapons in the ocean since 1970. Moreover, in 1971, the United States has enacted a law that generally prohibits the disposal of waste in the oceans, including outdated chemical weapons.

Unfortunately, however, even though the Ministry of National Defense has recently claimed that outdated chemical weapons are no longer dumped in the sea, much is not known to this day about the potential dangers of past disposal of such weapons. In 2011, the US Army released a report that provided more information about certain areas of the ocean where the US military disposed of chemical weapons than previously announced. The Army acknowledged in its report that some weapons were damaged or leaked at the time of disposal. With the latest information, many health and environmental advocates, marine environmentalists, and the general public have questioned the potential dangers of chemical weapons in the ocean and argued that scientific research is needed to assess these risks.

Background

In the late 1960s, the Department of Defense (DOD) first officially acknowledged that the US Army regularly disposed of outdated weapons, especially chemical weapons in the sea after World War I (WWI). In a 2001 report, the Army provided a broader historical record of marine cases and areas where US troops abandoned outdated weapons. The Army categorized

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74 cases of marine disposal, 42 of which were handled off the US coast and off the coast.

The first recorded example in the report was in 1918 at an unknown location in the Atlantic Ocean between the US and the UK. However, the Army's records did not contain maritime disposition until 1941. Therefore, it is obscure how much marine disposal occurred in the meantime. The only can be sure of is that there will be more than the recorded figures. According to the Army, the last incident occurred in 1970, about 250 miles off the coast of Florida. Unfortunately, however, this case is also not possible to estimate the cumulative number of chemical weapons thrown into the sea and identify all kinds of weapons due to incomplete historical records.

The 2001 Army report pointed out that each disposal site had thousands of outdated weapons. The Army also points out that in some cases conventional explosives and radioactive waste were dumped into the sea along with outdated weapons. The amount of old chemical weapons ranged from less than 30 pounds to thousands of tons. Generally, there were various types of chemical weapons, such as sulfur mustard and a nerve agent.

Outdated chemical weapons speculation has spread geographically, including two cases of disposal on the Atlantic and Pacific continental coasts, the Gulf of Mexico, the Hawaiian coast, and the Mississippi River in Louisiana. Although the Army identified individual disposal cases on a site basis, many of these sites could only estimate extensive geographical references to coastal states or cities and approximate distances from the coast, but accurate coordinates could not be estimated.

Even in some cases, only the Atlantic Ocean or the Pacific Ocean is identified. The army also

recognized the disposal of outdated US weapons on foreign shores in the Atlantic, Pacific, North Sea, Mediterranean Sea, and the Indian Ocean.

These days, many countries, including the US have tried to dispose of old weapons in a safe manner to make up for their mistakes taken before. However, the high cost and long time required to dispose of outdated weapons are preventing countries from disposing of the weapons appropriately. The cost of dismantling a typical nuclear weapon, a typical example of an old weapon, can explode like a firecracker. For instance, removing 37.5 tons of weapons-grade plutonium can be more expensive and time-consuming than the Manhattan Project to produce atomic bombs that ended World War II (WWII).

The Trinity plutonium implosion device tested in the New Mexico desert, the Little Boy uranium bomb dropped on Hiroshima, the Fat Man plutonium bomb that hit Nagasaki, and old unused uranium bombs are now worth about \$24.1 billion within six years. In contrast, the Government Accountability Office (GAO) estimates that it will cost the US more than \$24.2 billion to remove 37.5 tons of plutonium and take it back by 2036.

To dispose of millions of old gallons of highly radioactive liquid waste dating back to the 1940s, the Ministry of Energy decided to build a waste disposal and anchoring plant in 2000. The cradle was estimated to be \$ 4.3 billion with the completion date of 2011. Then in December 2012, an audit by the US GAO was estimated that the cost will be \$13.4 billion, three times higher than the original estimated price.



Dumping chemical weapons into the ocean

International Actions

Many federal governments have tried to find ways to dispose of old military equipment. At the end of WWII, many countries tried to reduce their large inventories by allowing civilians to use the military equipment.

DOD implements disposal policies through a Defense Logistics Agency (DLA) Disposition Services that considers deteriorated government equipment and supplies or unnecessary or exceed than current agency-designated obligations. DLA disposal services help reuse property, recover valuable metals, recycle, dispose of hazardous assets, and demilitarize military equipment.



The logo of DOD

DLA Deposition Services manages the reuse, transfer, donation, and sale of outdated military property. The Recycling/Transfer/Donation Program through DLA Disposition Services is the process of redistributing various properties that DOD no longer considers necessary. Weapons that are considered obsolete may be reused, transferred, donated, or sold. This service creates potential beneficiaries, including law enforcement, school systems, healthcare, civic and local organizations, libraries, homeless support agencies, state and local government agencies, and the general public.

Unfortunately, however, this service has caused a more serious problem. People, including ordinary people, got dangerous weapons easily without realizing safety regulations, which caused lots of safety problems. Recently, the Law Enforcement Support Office (LESO), or 1033 Program has become the target of media coverage. Some lawmakers have expressed concern about the transfer of outdated weapons and types of military equipment available to state and local law enforcement agencies, particularly the federal 1033 program, due to clashes between protesters and police in August 2014. Therefore, on September 9, 2014, the US Senate Committee on Homeland Security and Government will hold a hearing titled “Supervision of Federal Programs with State and Law Enforcement.”

Places of High Concern

United States of America



Outdated chemical weapons in the US

From WWI to 1968, the US produced chemical weapons as a deterrent against similar weapons used by other countries. Although not used in wars, these US weapons are now obsolete and deteriorating with age.

The amount of chemical warfare agents in the US is estimated to have reached nearly 40,000 tons by 1968. These chemical warfare agents were stored in large containers, assembled weapons, and

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ammunition in nine locations in the US. During Operation Cut Holes and Sink 'Em (CHASE) from 1967 to 1970, thousands of tons of unwanted old weapons and ammunition were intentionally disposed of on an old ship that sank into the sea.

In 1970, Congress has passed various laws since they have recognized the problem, which has motivated them to solve the situation. Among the many laws were to protect the health and safety of the public and to protect the environment because of environmental concerns about dumping outdated weapons in the sea. The Congress also planned a program to demilitarize weapons.

In 1986, Congress called for the destruction of all stockpiles of US chemical warfare agents. According to the Organization for the Prohibition of Chemical Weapons (OPCW) inventory in 1997, the US stockpile totaled 30,500 tons. It is estimated that reserves such as recovered deteriorated weapons and chemical warfare agents will exist at more than 200 sites in the region.

A serious case of the disposal of old weapons in the US has now been found on the Hanford nuclear site. Hanford is a notorious 'tank farm' with 177 tanks containing millions of gallons of highly radioactive and toxic waste. These include useless and outdated weapons. About 50 of these tanks have various chemical compounds and their decay products accumulated into gases, indicating the immediate threat of explosion. Some tanks have already ruptured and radioactive materials have leaked to the ground.



The sign of Hanford Site

Russian Federation

The situation in Russia is equally serious. Some of the outdated nuclear submarines are still armed with nuclear warheads and are rusting in the fjords of Murmansk. Because of this, many rivers have been polluted and reservoirs and lakes have been used to store large quantities of liquid radioactive materials.

In 1957, a waste storage tank exploded at the Chelyabinsk nuclear weapons site in Russia, scattering radioactive clouds over 200 square kilometers of agricultural areas containing numerous rivers and lakes. Almost all the trees in the most radioactive areas were damaged or killed. More seriously, radioactive waste is routinely dumped in Lake Karachay that contains radioactive materials in the world most. The highest number recorded near the drainpipe is about 6 gray per hour, which is sufficient to give adult humans a lethal dose within an hour.



Lake Karachay, polluted due to radioactive waste

Possible Solutions

As there are many aspects to this problem, many solutions can be proposed. Among the many problems that exist within this issue, the three of the gravest are the following:

1. The fact that it takes a lot of time and money to dispose of outdated weapons,
2. The fact that many areas have already been seriously contaminated with discarded weapons, making it difficult to recover,
3. The fact that disposing of weapons does not only negatively affect the environment but also is harmful to human health.

Therefore, it is especially necessary to mediate negotiations between countries and organizations to secure sufficient financial supports for safely disposing of outdated weapons. Moreover, it is essential to employ many researchers to discover a new way that can reduce the cost and time of disposal of weapons. By providing some incentives including the best facility to motivate scientists to fully focus on their work. Finally, making stricter laws to restrict countries from dumping out their outdated weapons illegally can also be an effective solution. If there are countries that violate the law, they will receive some corresponding harsh punishments, such as paying a large amount of fine.

Glossary

Department of Defense (DOD): executive division of the US federal government responsible for ensuring national security and supervising US military forces.

World War I (WWI): a war (1914-1918) in which the Central Powers (Germany and Austria-Hungary, joined later by Turkey and Bulgaria) were defeated by an alliance of Britain and its dominions France, Russia, and others, joined later by Italy and the US.

World War II (WWII): a war (1939-1945) in which the Axis Powers (Germany, Italy, and Japan) were defeated by an alliance eventually including the UK and its dominions, the former Soviet Union, and the US.

Government Accountability Office (GAO): an independent, nonpartisan agency that works for the US Congress.

Law Enforcement Support Office (LESO): a division of DLA Disposition Services, a subordinate command of the Defense Logistics Agency in the US.

Organization for the Prohibition of Chemical Weapons (OPCW): an UN-related organization located in The Hague in the Netherlands, responsible for the administration of the Chemical Weapons Convention (CWC), including verification, inspection, and liaising with member states.

Hanford: a government reservation in Richland in southeastern Washington, a former US plutonium-production site.

Gray: a unit of absorbed dose of ionizing radiation, defined in the 1980s by the International

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Commission on Radiation Units and Measurements (ICRU).

Timeline

1918 – the US military disposed of old weapons at an unknown location in the Atlantic Ocean between the US and Britain.

1925 – despite the Geneva Convention was created to ban chemical weapons, armies continued manufacturing sulfur mustard and other armaments throughout WWII, which highly has produced outdated weapons in the future.

1944 – 16,000 sulfur mustard bombs were dumped in the ocean where near Pearl Harbor.

1945 – after all the wars, another problem has occurred: scientists did not know how to dispose of unnecessary obsolete weapons. Therefore, Russia, the UK, and the US chose the safest and cheapest disposal method at that time, which was dumping outdated weapons into the ocean.

1945 – the US military has demanded that landfills be placed at least 1,800 meters below the surface.

1960s – DOD officially acknowledged for the first time that the US Armed Forces had regularly disposed of outdated weapons in the ocean since WWI.

1967 – 1970 – in the US, thousands of tons of unnecessary old weapons were loaded onto old ships and then deliberately sank into the sea.

1970 – the US Congress passed Public Law (PL) 91-121/441 (50 USC 1521), a plan created by DOD to dispose of outdated weapons, and recommended measures to protect public health and safety during such activities.

1972 – due to environmental concerns about dumping outdated weapons into the sea, the US Congress passed PL 92-532 (33 USC 1401).

1972 – on September 12th, DLA established the Defense Property Disposal Service.

1983 – the National Center for Environmental Health (NCEH) has reviewed plans for DOD's Chemical Weapons Demilitarization Program.

1986 – as part of PL 99-145 (50 USC 1521) Congress demanded that all US chemical warfare agents be destroyed.

1989 – LESO from the US has operated a 1033 program that allowed civilians to use outdated weapons to deal with the weapons.

1997 – according to OPCE inventory, the US stockpile of obsolete weapons totaled 30,500 tons.

1997 – the US ratified the United Nations (UN) International Chemical Weapons Convention (CWC) treaty. By participating in the treaty, the US has agreed to scrap its outdated chemical weapons stockpile by April 29, 2007.

2001 – the US army wrote a report to show the current situation and estimated the number of weapons that they dumped illegally.

2014 – concerns have arisen over the 1033 program after the shooting death incident in Ferguson, MO in August, and the widely spread photos of heavily armed police using equipment believed to have been transported from the federal government through the 1033 LESO.

2014 – on August, DLA and Environmental Protection Agency (EPA) reached an agreement on national security immunity and wrote a memorandum.

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