

THE TRUE COST of Burning Military Munitions



Open air burning of hazardous munitions wastes has a long history.
This is the Badger Army Ammunition Plant in Wisconsin, in 1943.



During active productions years, as many as 10,000 people worked at Badger.



During World War II, it was the largest munitions factory in the world.



Badger made propellants for small arms, cannons, grenades and rockets.



This created chemical and explosive waste that was dumped in pits on the bare ground...



... and then burned.



Unfortunately, not much has changed. Today, open air burning of hazardous waste by the Department of Defense is commonplace.



This plume of toxic smoke is from open air burning of hazardous waste at Holston Army Ammunition Plant in Tennessee.



This is the Radford Army Ammunition Plant in Virginia. Like many other facilities, the open burn units are right next to rivers and lakes.



The Army routinely burns buildings too. This is Indiana Army Ammunition Plant. In early 2004, 64 buildings were burned.



This is Sunflower Army Ammunition Plant in Kansas. From 1995-2005 the military burned 1,490 buildings during 142 events. Debris, including asbestos, was carried up to 3 miles offsite to residential areas.



This is Cornhusker Army Ammunition Plant in Nebraska . In 2002, the Army burned three-quarter-mile-long Load Line 1.



This is the same fire at Cornhusker. To give you a sense of scale, each little glowing dot is a building.



Central Louisiana Coalition for A Safe and Healthy Environment

Open air burning of hazardous munitions wastes is not limited to the military. This is the Clean Harbors facility in Colfax ,Louisiana.



In addition to burning, open detonation is routinely used to treat explosives-contaminated wastes. This detonation is in Vieques, Puerto Rico.

How much waste are we talking about?

Examples of Open Burning/Detonation Thresholds

(measured as pounds Net Explosive Weight)

Crane Naval Surface Warfare Center (IN)

109,364,800 lbs/yr

Letterkenny Army Depot (PA)

5,611,875 lbs/yr

Anniston Army Ammunition Plant (AL)

13,227,600 lbs/yr

This is just the tip of the iceberg.

By 2025, the conventional munitions
demilitarization stockpile is expected to
exceed 2,000,000,000 lbs.

Scientific studies have found that women who lived closer to open burning at the Massachusetts Military Reservation had an increased risk of later developing **breast cancer**.

For over sixty years, the military has conducted open burning and open detonation on the island of Vieques in Puerto Rico. **Children and teenagers** in Vieques have a risk of developing cancer that is 2-3 times higher than in the rest of Puerto Rico.

Over 100 toxic and carcinogenic chemicals are released from open air burning and detonation of waste explosives including lead, arsenic, chromium, dinitrotoluene, perchlorate and dioxins.

Military personnel are often the most exposed to these toxic emissions, along with nearby communities.



Overseas, the U.S. military and its contractors burn solid and hazardous waste in open pits, including munitions wastes.

A 2011 Army memo states that air pollution from **open burn pits** puts veterans at risk for “reduced lung function or exacerbated chronic bronchitis, chronic obstructive pulmonary disease (COPD), asthma, atherosclerosis, or other cardiopulmonary diseases.”



Open burning and detonation of munitions also impacts groundwater and drinking water.

RDX Explosive in Groundwater

EPA Drinking Water Advisory Level

2 µg/l

Massachusetts Military Reservation

370 ug/l

Bangor Ordnance Disposal, Washington

10,000 µg/l **5,000 X**

Nebraska Ordnance Plant

534 µg/l

TNT Explosive in Groundwater

EPA Drinking Water Advisory Level

2 µg/l

Nebraska Ordnance Plant

39 µg/l

Bangor Ordnance Disposal, Washington

40 µg/l **20 x**
(stormwater)

Perchlorate in Groundwater

(Propellant Ingredient)

EPA Drinking Water Advisory Level

15 µg/l

Massachusetts Military Reservation

500 µg/l 33 x

**Now that you understand the
problem...**

you can help with the solution.

There are new advanced technologies.

The U.S. Government developed them to safely treat chemical munitions.

They work for other military wastes too.

Here are some of the groups that agree.

Alaska Community Action on Toxics
 Blue Ridge Environmental Defense League
 California Communities Against Toxics
 California Safe Schools
 Camp Lejeune Community Assistance Panel
 Center for Health, Environment & Justice
 Center for Public Environmental Oversight
 Central Trades & Labor Council of Shreveport and
 Vicinity, AFL-CIO
 Citizen Action New Mexico
 Citizens for Safe Water Around Badger
 Citizens Task Force
 Concerned Citizens for Nuclear Safety
 CORALations
 Crawford Stewardship Project
 Defense Depot Memphis Tennessee Concerned Citizen
 Committee
 Echo Valley Hope
 Environmental Patriots of the New River Valley
 Environmentalists Against War
 Florida Veterans for Common Sense
 Food and Water Watch
 Fort Ord Community Advisory Group (FOCAG)
 Frederick Citizens for Bio-lab Safety
 Friends United for a Safe Environment (FUSE, Inc.)
 GAIA (Global Alliance for Incinerator Alternatives)
 Gasp
 Greenaction for Health and Environmental Justice
 Hoosier Chapter of the Sierra Club
 Institute for Science & Interdisciplinary Studies
 International Dialogue on Underwater Munitions
 Kentucky Environmental Foundation

Louisiana Bucket Brigade
 Louisiana Environmental Action Network
 Louisiana Progress Action
 Lower Mississippi Riverkeeper
 Midwest Environmental Advocates
 Midwest Environmental Justice Organization
 Moms Clean Air Force (National)
 Moms Clean Air Force Tennessee
 Moms Clean Air Force Virginia
 Nukewatch/The Progressive Foundation
 Peaceful Skies Coalition
 Philadelphia Right To Know Committee
 Physicians for Social Responsibility – Wisconsin
 Protect All Children's Environment
 Sierra Club (national)
 Tennessee AFL-CIO Labor Council
 Tennessee Clean Water Network
 Tewa Women United
 Texas Campaign for the Environment
 Tribal Environmental Watch Alliance
 Veterans for Common Sense
 Vidas Viequenses Valen
 Virginia Chapter Sierra Club
 Valley Watch
 Voluntary Cleanup Advisory Board
 Volunteers for Environmental Health and Justice
 Watauga Group of the Tennessee Chapter Sierra Club
 Waukesha County Environmental Action League
 Wisconsin Environmental Health Network
 Wisconsin Network for Peace and Justice

Add your voice to the chorus.

Join the
Cease Fire Campaign.

CSWAB.org