

# HAZARDOUS WASTE INCINERATORS PLAYING WITH FIRE\*



- ✓ Burning hazardous waste, even in state-of-the-art incinerators, releases heavy metals, unburned wastes, and products of incomplete combustion (PICs), i.e., new chemicals formed during the incineration process.
- ✓ Metals are not destroyed during incineration and are often released in forms that are more dangerous than the original wastes.
  - > At least 19 metals have been identified in the air emissions of hazardous waste incinerators.
  - > An average-sized commercial incinerator burning hazardous waste with an average metals content emits these metals into the air at the rate of 97,000 kilos and deposits another 304,500 kilos per year of metals in its residual ashes and liquids.
- ✓ Unburned chemicals are emitted in the stack gases of all hazardous waste combustion systems. These chemicals also escape into the air as fugitive emissions during storage, transfer and handling.
  - > Even if an average-sized commercial incinerator achieves 99.99 percent destruction and removal efficiency (DRE) during every second of operation with every chemical in every mixture burned, it releases unburned chemicals at the rate of 3200 kilos per year.
- ✓ PICs (chemicals formed during the incineration process) are emitted in the stack gasses and deposited in the residual ashes and liquids of all hazardous waste incinerators.
  - > According to the U.S. EPA, hazardous waste incinerators release thousands of PICs.
- ✓ Cancer, birth defects, reproductive dysfunction, neurological damage, and other health effects are known to occur at very low exposures from many of the metals, organochlorines, and other pollutants released by waste-burning facilities.
- ✓ Increased cancer rates, respiratory ailments, reproductive abnormalities, and other health effects have been noted among people living near some waste-burning facilities, according to scientific studies in other countries and surveys by community groups and local physicians in the U.S.
- ✓ Touted as an alternative to landfilling, incineration perpetuates the dangers of land disposal. U.S. hazardous waste incinerators are producing at least 147 million kilos per year of ash residues. These ashes, which are buried in landfills, are contaminated by PICs, many of which are more toxic than the original waste chemicals. The ashes also contain increased concentrations of heavy metals, often in more leachable forms than in the original wastes.

(\*Excerpted from the 1990 Greenpeace report, *Playing with Fire*, by Pat Costner and Joe Thornton)

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# RESOURCES ON HAZARDOUS WASTE INCINERATION



## ORGANIZATIONS AND JOURNALS

Center For Health, Environment and Justice  
P.O. Box 6806  
Falls Church, VA 22040 USA  
E-mail: [cchw@essential.org](mailto:cchw@essential.org)  
[www.essential.org/cchw](http://www.essential.org/cchw)

Greenpeace  
1436 U Street, NW  
Washington, DC 20009 USA  
[www.greenpeace.org](http://www.greenpeace.org)

Southwest Research and Information Center  
P.O. Box 4524  
Albuquerque, NM 87106 USA  
[www.sric.org](http://www.sric.org)  
Publishes quarterly: THE WORKBOOK

Work on Waste  
82 Judson Street  
Canton, New York 13617 USA  
[www.workonwaste.org](http://www.workonwaste.org)  
Publishes 48 times a year: WASTE NOT

Environmental Research Foundation  
P.O. Box 5036  
Annapolis, MD 21403 USA  
Email: [erf@rachel.clark.net](mailto:erf@rachel.clark.net)  
[www.rachel.org](http://www.rachel.org)  
Publishes: Rachel's Environment & Health Weekly

## SUGGESTED READING

THE HAZARDS OF BURNING TOXIC WASTE,  
1993  
Citizens' Environmental Coalition  
33 Central Avenue, Albany, NY 12210 USA

PLAYING WITH FIRE: HAZARDOUS WASTE  
INCINERATION, 1990  
Pat Costner and Joe Thornton  
Greenpeace

INCINERATION: THE BURNING  
ISSUE, 1998  
Center For Health, Environment and Justice

## VIDEOS

THE RUSH TO BURN, 1989  
(35 minute video)  
Greenpeace