

EPA Authority to Protect the Public Against Arsenic from Coal Combustion Waste Disposal

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Arsenic is a major contaminant of concern in coal ash

Arsenic naturally occurs in coal ash in concentrations that typically exceed levels found in natural soil

Arsenic is a potent human carcinogen - ingestion of arsenic in drinking water is a demonstrated cause of human **lung cancer, bladder cancer, and skin cancer**; it may also increase the risk of heart disease, diabetes, and lung disease

In EPA's recent risk assessment for coal ash disposal, cancer risk from arsenic leaching into potable groundwater was the key hazard identified

Of all the carcinogens in drinking water regulated by EPA, the evidence establishing the cancer risk from arsenic is the strongest and most compelling.

- The risk was demonstrated in studies on exposed humans, not from studies on experimental animals such as rats/mice
- The margin of safety between the current maximum contaminant level (MCL) for arsenic in drinking water (10 ppb) and the levels observed to cause human cancer is the narrowest for any carcinogen regulated by EPA
- The excess cancer risk tolerated under the current MCL is 1 in 300, much higher than the typical public health goal of 1 in 10,000

As a consequence of its toxicity and prevalence, arsenic has been ranked the #1 priority pollutant at Superfund sites

ATSDR

Department of Health and Human Services

Agency for Toxic Substances & Disease Registry

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2005 CERCLA Priority List of Hazardous Substances

2005 RANK	SUBSTANCE NAME	TOTAL POINTS	2003 RANK	CAS #
1	ARSENIC	1668.56	1	007440-38-2
2	LEAD	1534.54	2	007439-92-1
3	MERCURY	1507.31	3	007439-97-6
4	VINYL CHLORIDE	1389.02	4	000075-01-4
5	POLYCHLORINATED BIPHENYLS	1371.60	5	001336-36-3
6	BENZENE	1353.53	6	000071-43-2
7	POLYCYCLIC AROMATIC HYDROCARBONS	1321.72	8	130498-29-2
8	CADMIUM	1321.47	7	007440-43-9

Groundwater near some coal ash disposal sites has been found to contain arsenic at concentrations that exceed the MCL, sometimes by 100 fold or higher

Examples:

Wateree Station, South Carolina:	5100 ppb
Hatfield Ferry Landfill (PA)	3400 ppb
Michigan City (IN)	1200 ppb

The public health significance of the health risk posed by arsenic and its presence in coal ash merits its close regulation on the federal level by EPA

S.1751 would prevent EPA from protecting citizens against the health risks posed by arsenic leaching into potable groundwater from coal combustion waste