

POLLUTION
PREVENTION
OPPORTUNITIES
IN
COAL MINING



helpful information from
U.S. EPA Region III
Philadelphia, PA

OCTOBER 1990

WHAT CAN YOU DO ?

This fact sheet lists specific pollution prevention practices that have been successful at a number of coal mining operations. Use this fact sheet along with the "Pollution Prevention Opportunities" fact sheet to gather ideas on how to reduce your wastes.

IMPROVE OPERATIONS

Use stabilization and control technologies to prevent surface and groundwater pollution from ponds, overburden, and coal refuse piles.

Maintain a suitable pH to minimize trace element leaching and the capability of the leachates to solubilize metals.

Use "constructed wetlands"--a new technology proven as successful as wastewater treatment in certain applications involving low flow waste streams. Wetland plants remove metals from mine water by absorption, consumption, and simple filtration.

Increase metal removal through sulfide precipitation by adding bacteria to oxidize iron and manganese and convert sulfates to hydrogen sulfide.

Cover service roads with asphalt or treat with water or approved chemicals.
Reclaim and seed mined areas quickly to prevent wind and water erosion.

Retain existing vegetation to the greatest degree possible.
Decrease erosion of unstabilized soils by using methods to reduce the velocity of runoff.

Prevent spontaneous combustion in coal and coal refuse piles by keeping the piles as cool as possible and by limiting air infiltration.

REUSE & RECYCLE

Recycle machinery
lubricating fluids.

Use cloth rags that
are washed rather
than disposable rags.

Use coal refuse wastes
for on-site dams, fill
material, etc.

Backfill mines with
removed overburden
material.

WE ENCOURAGE YOU
TO PURSUE POLLUTION
PREVENTION OPPORTUNITIES
WITHIN YOUR OPERATIONS.
BE A PART OF THE CULTURAL
CHANGE.

FOR MORE INFORMATION:

Bituminous Coal Research
National Laboratory
500 William Pitt Way
Pittsburgh, PA 15238
412-826-3030

National Coal Association
1130 17th Street, N.W.
Washington, D.C. 20036
202-463-2625

Office of Surface Mining,
Reclamation & Enforcement
10 Parkway Center
Pittsburgh, PA 15220
412-937-2862

US Department of the Interior
Bureau of Mines
2401 E. Street, N.W.
Washington, D.C. 20241
202-634-1263

US EPA Pollution Prevention Clearinghouse
703-821-4800 (Info.)
703-506-1025 (Access)

Health and Environmental Effects of Coal
Technologies

Federal Interagency Committee on the Health
and Environmental Effects of Energy
Technologies
MITRE Corp., August 1979
703-487-4600

f r o m :

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