

Blocking Waste Disposal

At-Sea Incineration Inc. recently defaulted on federally guaranteed bonds to finance two chemical-waste incinerator ships, and its parent company, Tacoma Boatbuilding Co., has entered Chapter 11 bankruptcy-law proceedings. The U.S. Maritime Administration has already paid \$63.8 million to bondholders and is preparing to take title to the two nearly completed ships. Herein lies another sad tale of perverse "environmentalism."

At-Sea Incineration had pinned its financial hopes on getting a license from the Environmental Protection Agency to burn toxic chemical wastes, such as PCBs, offshore. The technique of ocean burning has been used successfully and without incident in Europe since 1972. At-Sea Incineration, as well as Waste Management Inc., had planned to bring this proven technology to the U.S. But the slow EPA licensing procedures helped run At-Sea Incineration aground before it could set sail. Now the federal government is having to make good the defaulted bonds.

Meanwhile, Waste Management Inc., as the largest waste-treatment company in the U.S., is still trying to steam ahead with its plans—that is if the EPA and environmental purists don't get in its way too. It plans an ocean burning exercise soon in the Atlantic if it wins final EPA approval. Public hearings are set for Jan. 13 in Philadelphia, and environmentalists are expected to be out in force to voice their opposition.

The irony is that ocean burning is a relatively safe and efficient means of getting rid of liquid toxic waste. The chemicals are loaded aboard ship, taken some 140 miles offshore and burned at intense heat in on-deck incinerators. Waste Management has already conducted nine such tests in the Gulf of Mexico since 1974 and two others in the southwest Pacific to burn leftover supplies of Agent Orange.

Monitoring devices on and around the ships have found no harmful traces of the chemicals entering the atmosphere or the water. Moreover, here were two private-sector companies that were eager to take on this task at a time when Washington was going berserk with a \$10 billion federal Superfund cleanup program that it wanted to finance with a new VAT-type tax.

Lead opposition to ocean incineration comes from Greenpeace, whose original goal was to "save" whales, baby seals and other marine life. Without any shred of evidence that ocean burning hurts the environment, Greenpeace and some other so-called public-interest groups have used this issue to scare up new support and, most important, contributions. They prefer to ignore the fact that Waste Management alone burns 60,000 to 100,000 tons of chemical waste in Europe every year, at private expense, with no damage to nature. Its clients come from such environmentally concerned countries as West Germany, Britain, Belgium, France, Holland, Sweden and Denmark.

The At-Sea bond default and Tacoma Boatbuilding's Chapter 11 filing, along with the delays Waste Management has suffered, add weight to the suspicions we've had for years that many of the people who engage in environmental politics are far more interested in attacking private industry than in cleaning up the environment. When those attacks begin to actually block cleanup efforts, and at considerable cost to the taxpayers, it is time for the administration, the Congress, the courts and the EPA to take a harder look at the environmentalist movement and start making distinctions between serious environmentalists and mischievous pseudo-environmentalists. Serious environmentalists, it seems clear to us, would be for, not against, the destruction of toxic wastes.

T.W.S.T.
Dec 31, 85
p 8



Problems of supply shortages, pollution, and faulty infrastructure for water development plague every region of the country.

In Arizona, water tables in Tucson, a city that depends exclusively on ground water for its supply, have fallen 150 feet in the last twenty years.

In Florida, the rapid depletion of underground water is causing land to collapse into sinkholes.

In New Jersey, 40% of the state's drinking water leaks out of antiquated water mains.

In short, our nation's water systems are in trouble.

To complicate matters further, the financial well is also running dry. Federal investments in water resource development, waste treatment, and planning are steadily declining. And, the institutional structure for dealing with water issues at the national level is once again being questioned.

With decreasing financial resources and increasing organizational uncertainty at the national level, states are forced to examine their options for addressing the looming water crisis.

But should they simply replicate programs at the state level? Or are there other, more effective approaches?

TROUBLED WATERS, a new publication of the Council of State Planning Agencies has some answers. While it focuses on the Western region, it shows how states can:

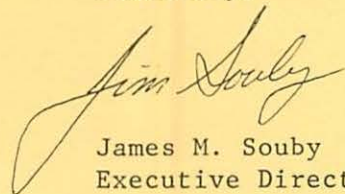
- *Enhance their collateral for financing water investments...
- *Initiate more effective regulatory policies...
- *Create more efficient methods of planning for water development, and...
- *Assist local governments in supporting their water needs.

In the book's foreword, Governor Bruce Babbitt of Arizona writes that "many of the options contained in this book will be controversial. But the time is at hand to rethink policies developed in a different era under assumptions which may no longer be valid."

TROUBLED WATERS is a book that should be studied by all those concerned with water, governance, finance or public policy.

The enclosed brochure describes the book more fully. An order form is attached for your convenience. We look forward to hearing from you.

Sincerely,



James M. Souby
Executive Director

Steven Holden. PMB -

24 laws. Clean Air, Freshwater Act, Control Act - effluent
Marine Protection Ocean Dumping
Food Drug, Rodenticide Act - Pesticides
Safe Drinking Water
Fox Sub Control Act.

Res. Cons. Recovery Act - Hazardous Disposal, Transport
Superfund. \$1.6 Bil. for clean up. \$1.5 for Superfund FOA.

Problem.

Mortgage expires soon or Sep.

Clean Water - not deal with non point - ag. runoff

Fox Sub Control - need require extensive testing, only notice printed manufacturers
notice does not say much

Safe Drinking Water - no de facto ground water

Clean Air - need EPA criteria and not enforceable - only Cong.

designated other criteria need.

EPA to do all work and EPA behind, underfunded.

Tendency for lax enforcement, easy waivers

Good News - ocean dumping down, DDT reduced, water & imp.
Air down.

177% decrease in lead -

PM 75	82
0.88	.032

1973 lead point ban, lead out of gasoline

Lead ban by 1988

Bad - Superfund - problem created by EPA; clean up slow;

Other countries producing ^{Fluoro}-Fluoro carbons. Mexico uses DDT

Between 1965-1978 more than 4 million new compounds

1000 new chemicals in production each year

Basic chemical production rapid increase - esp. organics

in developing countries.

We have exported hazardous waste.

Pesticides - some 40,000 compounds registered for use in U.S.

40% of U.S. production and 25% of prod. is banned here.

20% used on luxury crops which we ^{then} import.

Notice on clean
transport.

→

EPA News Sp. Case

decrease in effectiveness of pesticides.

1945-1987 ¹⁹⁴⁵⁻¹⁹⁸⁷ use has ^{1/2} in some 60% and pesticide use increase 100%.

increased tolerance, ^{1/2} ~~more~~ ^{1/2} ~~less~~ crop spraying requires more pesticides

Roughly 1% of pesticide hits target - which hopefully is not resistant

99% is ~~toxic~~ ^{lost} ~~lost~~ ^{lost} - is bioicide

Dispute between Agencies EPA - OTA

EPA 1500-2500 sites to clean.

OTA 10,000 sites

GAO 49,170 sites

\$ 6-22^R

\$ 100^R

\$ 6.3-39.1^R

bioicide?

Costs of the problem

Illegal Dumping + Cals

Pay for the problem
Policy

Reasons for concern

1) Ground water 55% of pop uses - 2.5 y gas contaminated water
solvents - for electronics

2% and low - monitoring limited found contamination are very abundant, in solvents are common

contaminates unless federal policy to ground water

2) gas and petroleum oil exempt from most reg. underground storage tanks of gas.

EPA studies - determine risk - toxicity, route, exposure.

- epidemiological data - hard to get on children

- long cancer ~~time~~ ^{time} appearance time
- mutagenicity test / carcinogenicity test - test differences in strains

Problems

Overall improvement.

Subscribers

Public Citizen

Congress Watch • Critical Mass Energy Project • Health Research Group • Litigation Group • Tax Reform Research Group

Abracadabra. That toxic waste dump in your backyard is suddenly pronounced safe.

Presto-chango. Those Reagan tax cuts — which actually resulted in higher taxes for anyone earning less than \$75,000 a year — are now "the people's tax cut."

Poof. Government data on defective cars, polluted air, dangerous workplaces, and pesticide-poisoned food disappear. Do the hazards go up in smoke, too?

Dear Friend,

Watch closely. There's a magic show going on and we, the American people, are about to be manipulated by another four years of tricks.

The master of ceremonies, Ronald Reagan, is back. And if his first show is any indication of what's up his sleeve for the next four years, the Reagan troupe of magicians will be trying to fool us with the same illusions:

- ... that it's fair to let telephone rates, natural gas prices and hospital costs spiral higher and higher.
- ... that it's fair to hand out more than \$100 billion each year to big business in corporate tax breaks, price supports, loan guarantees, and other subsidies.
- ... that it won't endanger our environment to slash the budget of the Environmental Protection Agency.
- ... that sweeping censorship and secrecy regulations are consistent with a democratic government.

With sleight-of-hand and twist-of-word, Mr. Reagan's "Abracadabra Administration" is running a national shell game: diverting attention from what's REALLY going on.

You've seen the techniques: The "photo opportunities" in the Rose Garden. The staged press conferences. The stacked memberships of so-called bi-partisan commissions.

I'm sure you've also noticed the Orwellian newspeak — the MX missile is called the "Peacekeeper" and catsup becomes a "vegetable" for the school lunch program. During the recent campaign, Mr. Reagan invoked Harry Truman, John F. Kennedy and even Bruce Springsteen in an attempt to get some of their popular magic to rub off on him!

But deceptive rhetoric and clever media manipulation cannot disguise the raw realities of the past four years. Let me review some of the flimflams that Mr. Reagan has tried on us -- deceptions that even the press hasn't told you about:

Cancer Chicanery: Scientists tell us that 60-80% of all cancers are environmentally caused. But the Reagan Administration has attacked federal regulations controlling cancer-causing pesticides, air pollutants, toxic wastes and contaminated drinking water.

Then, with a wave of his wand, Mr. Reagan tried to disguise this shameful record by appointing a special commission on cancer. He named its head Armand Hammer, chairman of Occidental Petroleum, which owned the company responsible for the Love Canal tragedy!

Next came the Grace Commission on Cost Control which called for slashing the Environmental Protection Agency budget by virtually eliminating its function of assuring compliance with federal environmental laws. You have to marvel at the Commission's magical way with numbers. It announced a savings of \$4.7 million per year by consolidating three EPA offices. But the combined budget of these three offices right now is only \$3.3 million!

With this kind of arithmetic, it's no trick at all to save money. And it's no surprise at all that several of the members of the Grace Commission are themselves environmental polluters, subject to EPA regulations.

Playing with children's health: That nice fellow in the White House who arranges special surgery for Korean orphans? The media can't resist stories like that. But let's look behind the flash bulbs at Mr. Reagan's actual neglect of American children:

- o The Reagan Administration cut the school lunch program by 29%. That cut is depriving 3 million needy children of their only nutritious meal every day.
- o Mr. Reagan's EPA is refusing to enforce a law passed by Congress more than four years ago to fund the removal of asbestos from schools throughout the country. As a result, an estimated 15 million children are being exposed to this potent cancer hazard.
- o The calculated delays in regulations to insure that baby formula is safe and nutritious, not defective, are exposing infants to such dangers as learning disabilities and brain damage.

Economic Justice -- Now you see it, now you don't: The past four years have seen a massive redistribution of wealth -- from the pockets of average citizens to the tax-free bond portfolios of the rich and powerful. Tax and budget cuts for 1983-85 will take \$1,100 away from families earning less than \$10,000 a year -- and shower more than \$24,000 on families that already earn \$100,000 a year!

Magicians mesmerize their audiences with familiar, everyday objects -- while trick wires and trapdoors work their "magic." So it is that Wizard Reagan flourishes the rhetoric of "free enterprise"... while big business runs wild.

So a distracted audience fails to notice that nine of the ten largest

corporate mergers in history have occurred during the past four years -- hardly "free enterprise."

And while the president extols free enterprise, he is also backing corporate welfare schemes to the tune of \$80 billion a year — including \$18 billion in payments in kind to agribusiness (while small farmers go bankrupt) and \$4.5 billion to bail out the mismanaged Continental Illinois Bank.

And now, the second term will bring new and flashier stunts and shenanigans, we can be sure. That's because Mr. Reagan doesn't have to worry about reelection any more. He can afford to be more audacious. He knows, too, that the resurgent Far Right — "his kind of folks" — is in full command of the Republican Party, so he doesn't have to keep up the pretense of appealing to Republican moderates.

Mr. Reagan himself warned us what to expect when he boasted: "You ain't seen nothing yet!"

Any good conjurer knows that your bag of tricks works best when you dim the lights and keep the audience in the dark. That's why Mr. Reagan wants anti-information policies that will cloak government decision-making in secrecy.

He wants to make the priceless Freedom of Information Act disappear. Without this law — which guarantees citizen access to public information in government files — dozens of unsafe products, illegal acts and instances of official corruption and mismanagement would go undiscovered and uncorrected.

But Mr. Reagan doesn't want to just hide wrongdoing by his political cronies, he wants to eliminate the very creation of embarrassing data. Currently, the government can control many hazards only because it has the power to acquire corporate data on automobile defects, toxic waste disposal, adverse reactions to drugs and other information that affects the safety and health of all of us.

Under the guise of the so-called Paperwork Reduction Act, Mr. Reagan proposes to hand over vast powers of information control to David Stockman. Mr. Stockman alone would decide to prohibit its collection or suppress its release.

Here again, Mr. Reagan shows us that he is a master illusionist: Divert attention to "paperwork reduction" and "bureaucratic red tape" while trashing the guts out of important health programs.

Ronald Reagan's reelection showed that he still has a large following for his political make-believe. But the rest of us need not participate in this mass hypnosis or become an acquiescent audience for the Far Right Wing Follies.

That's where Public Citizen comes in. Public Citizen is the watchdog consumer group founded by Ralph Nader in 1971. We don't believe that in the face of adversity, Americans have to sit around wringing their hands and doing nothing. We don't believe in getting fooled by political smoke and mirror tricks, no matter how slick they are.

And we don't think you want to be fooled, either.

Public Citizen has proved what it can do. Our lawyers and lobbyists

aren't taken in. We lobby against harmful Reagan bills in Congress. We litigate anti-consumer programs in court. We challenge Reagan misrepresentations in the press and other public forums.

With the support of people like you, Public Citizen has won some stunning triumphs. We exposed the administration's cover-up of brake defects in General Motors' X cars. We revealed the truth about Oraflex, the dangerous arthritis drug, and about Bendectin, a morning sickness drug linked to a serious birth defect. And those are just a few examples out of many notable victories. Right now, our citizen lobbyists are fighting the shocking increases in telephone rates and the "legalized bribery" of the campaign financing system.

Compared to the bulging treasuries of our corporate adversaries, Public Citizen's financial resources are pitifully small. But with your help, we can make a difference. No, we can't win every fight. But we can hold back those Reagan programs that will do irreversible harm — to our democratic form of government — to our environment — to the health and safety of our children and the generations still to come.

We can achieve much because we have the energy, the strength of purpose, the expertise and the perseverance to do the job. I can tell you flatly that Public Citizen is the most broad-gauged, successful and economically run public interest program in the country.

Now all we need is your help.

Our success depends solely on individual contributions from people like you — people who reject the Reagan magic show, but are still searching for the most potent, effective response. We know that our members cannot match the war chests of corporate and industrial giants, but you can help us even up the odds.

And as you help Public Citizen, Public Citizen will help you to penetrate the razzle-dazzle deceptions of the next four years. As a Public Citizen member, you will receive Public Citizen magazine, our lively quarterly journal that will keep you up to date on all consumer issues.

You will also have access to reports, testimony, position papers, newsletters, and books that will give you an insider's look at the Reagan Administration's actions — and suggest ways for you to counter them.

We all know that real democracy isn't achieved by magic. It takes hard work and financial support of active citizens like you. And in times like these, it also takes the courage to stand against the prevailing political winds.

We hope you count yourself as a doer and fighter, and that because you are, you'll join Public Citizen today.

Sincerely,

Joan Claybrook
Joan Claybrook
President

P.S. With your gift of \$35 or more, we will send you a free copy of Over-the-Counter Pills That Don't Work, our best-selling guide to hundreds of non-prescription drugs not proven effective.

Secretariat

Natural Resources Defense Council

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212 949-0049

John Adams
Executive Director

May 1985

Dear Concerned American,

The Natural Resources Defense Council (NRDC) has filed suit on your behalf in the U.S. District Court of Maryland against the Bethlehem Steel Corporation.

Once you know the full Bethlehem Steel-NRDC story, I think you'll understand why I'm writing to ask you for your immediate, personal support of this landmark suit.

Bethlehem Steel's Sparrows Point plant sits on a spit of land that juts out into America's largest and perhaps most fragile estuary, the Chesapeake Bay. Yet each day the plant pours 300 million gallons of wastewater into the Chesapeake.

Contained in that wastewater is oil, cyanide, and an array of other dangerous and toxic pollutants. And they are slowly killing a waterway once renowned for its fishing, swimming, and natural splendor.

Bethlehem Steel has dumped literally thousands of tons of dangerous industrial waste into the Chesapeake Bay since 1978 in clear violation of federal water pollution standards.

We at the Natural Resources Defense Council decided that we simply had to act right away to put a stop to this illegal and harmful practice.

The dumping of such toxic pollutants is supposed to be controlled -- by limits set in a "discharge permit" that the Environmental Protection Agency issued to Bethlehem Steel.

It also falls to EPA to enforce that discharge permit and to seek fines of up to \$10,000 for each violation.

But EPA has failed to do its job. Bethlehem Steel hasn't paid one single dollar in pollution penalties in six years! Even though their own records show more than 350 violations in the last five years alone!

EPA knows full well the deadly effects of so much pollution on an estuary so delicate as the Chesapeake Bay. Why, then, hasn't EPA acted?

Because budget cuts and personnel cuts begun in early 1981 have finally taken their toll at EPA: The enforcement of pollution laws has been brought to a virtual standstill.

This Administration would like you and me to believe that giant

(over, please)

Citizen enforcement suits are extremely expensive.

Costs of the four suits we've filed on San Francisco Bay alone could run as high as \$130,000 -- for legal staff, technical research, outside consultants, expert witnesses and other court costs.

And that's just four out of the many more that will have to be tried. We think it's worth it, however, because, unlike officials at the EPA and the Department of Justice, the Sierra Club Legal Defense Fund has not waived from the national goal -- established by Congress -- of totally eliminating water pollution in America's lakes, rivers and coastal waters in our lifetime.

To date, the Sierra Club Legal Defense Fund and its allies have been very successful. Victories in over a dozen cases have forced major polluters to clean up their operations in compliance with the law and put others on notice that they can no longer dump their toxic wastes, heavy metals and other refuse into the public's waters.

The high success rate of the first citizen enforcement suits -- and the threat of further action -- has up until now persuaded many other polluters to seek cooperative settlements in advance of costly court battles.

Unfortunately, that's not true any longer. The anti-regulatory atmosphere in Washington is now encouraging corporations to fight these costly court battles -- even in the face of their own corporate records of Clean Water Act violations!

Which is why your support is so crucial for us today. What is an almost unnoticeable business expense to Shell Oil, Union Oil, and Alcoa is financially debilitating to SCLDF and our public interest allies.

That's why I'm urging you to send as generous a contribution as you can to the Sierra Club Legal Defense Fund today. Your previous gifts have helped us win some critical, precedent-setting cases. But now the big polluters are raising every conceivable (and some not-so-conceivable) factual contention to escape the law.

Your next gift will help us beat them in court. And it will serve notice to the polluters that -- to you -- the Clean Water Act means just that: clean water.

I know I can count on you. My deepest thanks.

Sincerely,



Vawter "Buck" Parker
Coordinating Attorney

VP:sf

P.S. Your contribution is tax-deductible.

America has only one source of whose supply is growing

Our oil reserves may last another 40 years. Far less timber stands on our land than stood three generations ago. They say our coal supply is dwindling slowly—but not nearly so slowly as it took to build it up.

But in landfills and dump sites across America, the garbage that is piling up at a mountainous rate could produce an astonishing amount of badly needed energy. And produce it in complete environmental safety.

If we do not convert this refuse to energy, we will not only lay waste to our land, but to the only growing energy resource we have left.

Safely convert waste into energy? How?

The new Ogden has the state-of-the-art solution, not only to the problem of increasing contamination, but to the problem of a decreasing energy supply. The Martin process is already converting putrid waste into precious energy in more than 100 plants around the world. If all the nation's refuse were converted by the Martin process, it could produce as much energy each year as 80 million tons of coal! And the process is not only highly efficient, but it is environmentally safe.

Count the advantages.

1. The energy is produced as steam or electricity.
2. The residue ash is used in road-building.

3. The community's water supply is safe from future contamination.
4. Its environment is not polluted.
5. The per-ton processing fees for refuse haulers are competitive with or lower than many landfills.

6. Waste management will remain a major project.
7. Ogden projects...



OGDEN
CORPORATION

America y one source of energy se supply is growing.

3. The community's water supply is safe from future contamination.
4. Its environment is not polluted.
5. The per-ton processing fees for refuse haulers are competitive with or lower than many landfills.

6. Waste disposal requires less effort from municipal authorities. Because Ogden will plan, design, build, operate and maintain the entire project.
7. Ogden will even arrange to finance the project. So the municipality uses the project's money instead of its own!

The tip of the iceberg.

Waste-to-energy is high priority business at The New Ogden—but it's far from all we do.

When we say total service, total service is what we mean. We put your whole house in order.

We plan, design, build, maintain or operate manufacturing plants, warehouses, distribution centers, shopping complexes—even sports arenas.

We maintain the World Trade Center. And Yankee Stadium. And the U.N. And hundreds of other office buildings and factories.

We handle the baggage and fuel the planes and clean the equipment and feed the passengers at no less than 65 North American airports.

We manage training programs and inventories and maintenance and shipping and safety procedures and a mind-boggling swarm of other details that no top manager should even have to cope with.

And because we do our job so well, you have the time to do your job better.

**OGDEN
CORPORATION**



W 3 6
June 12, 88
p 5



Group's Influence on U.S. Environmental Policies Earns It a Reputation as a Shadow

By ROBERT E. TAYLOR

Staff Reporter of THE WALL STREET JOURNAL

WASHINGTON — Presidential envoy Drew Lewis announced on Wednesday a \$5 billion proposal to cut acid emissions from U.S. power plants, but one group wasn't waiting for him to act.

The day before, David Hawkins and Richard Ayres, attorneys for the Natural Resources Defense Council Inc., filed a 275-page administrative appeal urging the Environmental Protection Agency to cut back on the added pollution allowed from coal-burning plants with tall smokestacks. The changes they seek in that arcane rule would eliminate far more "acid rain" than the proposal by Mr. Lewis and his Canadian counterpart, and these changes are only part of the acid-rain controls NRDC seeks.

Mr. Hawkins and Mr. Ayres are prototypes of what, by many accounts, makes the NRDC the most effective lobbying and litigating group on U.S. environmental issues. For 15 years, the two lawyers have dogged Congress, the EPA and the courts to tighten controls on acid rain and other kinds of air pollution. More than a decade has passed since they won their first lawsuit forcing the government to restrict plant emissions of sulfur dioxide, an acidic gas that later falls to the ground, often in rain or snow.

During that 15 years, the NRDC has grown to be a kind of shadow EPA. It has influenced laws on air pollution, water pollution, toxics, drinking water, pesticides, nuclear wastes, strip-mine reclamation, land use, energy conservation and much more. It's hard to find a major environmental law it hasn't helped shape within Congress, the courts and federal agencies. And often, the influence is profound.

'Most Effective Group'

"It's the most effective of the environmental groups," asserts Steven Schatzow, head of pesticide regulation for the EPA and who formerly worked on toxic water

pollutants. "They are able to file good lawsuits, they're effective on Capitol Hill, they can use the media, and they're good at reacting with the agency."

"It's amazing how much they drive public policy," says a top Interior Department official, who wouldn't be quoted by name.

A poll of EPA and congressional staffers by "The Environmental Forum," a magazine on environmental issues, rated the NRDC higher than any other environmental or industry group for lobbying effectiveness. The average of ratings from 34 respondents put NRDC at 4.25 on a scale of 5, three-quarters of a point ahead of its nearest competitor.

NRDC was launched in 1970 by the Ford Foundation, which married a group of bright, recent Yale Law School graduates with establishment New York lawyers who shared ambitions to set up a public-interest environmental law firm. Since then, the NRDC has grown from a handful of attorneys writing briefs on a \$100,000 grant, to a diverse, national group with a \$6 million budget and 55,000 supporting members.

One secret of its success, admirers say, is that it has paid salaries comparable to government rates, enough to build and hold on to a stable of experienced lawyers and scientists.

William Pedersen, former chief of the EPA's lawyers on air regulation, says the NRDC's Messrs. Hawkins and Ayres know more about the Clean Air Act than "any institution in the country," including the EPA and the law firms representing affected industries.

The group built its reputation by winning lawsuits, repeatedly forcing agencies to write and rewrite regulations, or to take actions they had put off. It even conducts private enforcement for violations that the EPA has shrunk from tackling, suing dozens of companies to clean up their water pollution. In the process, it has gained credibility in many areas of environmental law that no other group can match. "When you're up against them, you're up against

the first team," says a former EPA lawyer.

Some Reagan administration officials aren't enthusiastic about the NRDC's accomplishments. One top EPA official says the NRDC is a part of the Democratic Party. Several top EPA officials, including Mr. Hawkins, deny this. But John J. White, executive director of the NRDC, denies any political affiliation. Several observers praise the NRDC's political bombast as a necessary part of the better-known groups.

Former EPA lawyer Ruckelshaus contends the NRDC has been highly successful but that it has written too many proposals and missed deadlines into the courts. EPA review found that the agency's decisions were often based on second-guessing by judges. Many believe that is the reason for making these judgments.

Costs of Regulation

The former EPA lawyer says the agency is often criticized for failing to take action on regulation. Often, he says, the NRDC and other environmental groups have forced regulators to take on amounts of money to pay for health risks.

David Doniger, an attorney specializing in toxic air pollution, says, "We take the rights involved here, and we're protected from the cost of regulation regardless of the cost."

Mr. Adams says it is not the numbers of scientists and lawyers that have a single economic issue, he says, but the battle should be fought

POLITICS AND POLICY

Environmental Laws, Litigation as a Shadow EPA

to file good law-
Capitol Hill, they
they're good at re-

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the first team," says one former EPA liti-
gator.

Some Reagan administration officials aren't enthusiastic about the NRDC's accomplishments. One official charges that the NRDC is a partisan ally of the Democratic Party. Several of its lawyers, including Mr. Hawkins, held Carter administration offices. But John Adams, the NRDC's executive director and chief fund-raiser, denies any political allegiance. And many observers praise the group for lacking the political bombast and threats of some of the better-known environmentalist groups.

Former EPA administrator William Ruckelshaus contends the NRDC has been highly successful because Congress has written too many prescriptive standards and deadlines into the law. He says one EPA review found about 80% of the agency's decisions were subjected to a second-guessing by judges. "I personally don't believe that is the way we ought to be making these judgments," he says.

Costs of Regulation

The former EPA chief faults the NRDC for failing to take account of the costs of regulation. Often, he claims, suits by the NRDC and other environmentalists have forced regulators to spend unjustified amounts of money to prevent insignificant health risks.

David Doniger, an NRDC lawyer specializing in toxic air pollutants, is unrepentant. "We take the view that there are rights involved here," he says, "rights to be protected from threats to your health, regardless of the cost involved."

Mr. Adams says it employs equal numbers of scientists and lawyers, but doesn't have a single economist on its staff. On many issues, he says, "we don't think the battle should be fought out on econom-

ics."

Mr. Adams says litigation is often the only way to get the attention of government officials and industry. "You can't get in the door unless they think you can do them harm." Nevertheless, he says, lawsuits are "not a very effective way to do business." They can block action, says the NRDC's Mr. Hawkins, and mandate some action where the agency has done nothing, but "it's very difficult to use a court to force an agency to write new rules differently."

Rather than litigating continually, NRDC employees say they spend most of their time doing research and haggling with government and industry officials over the writing and interpretation of laws and regulations.

Know-how helps give them access. The NRDC's Jim Banks had "tremendous influence on reauthorizing the Clean Water Act," largely because he knew the law well enough to explain the effect of delicate changes in wording, says Ronald Outen, staff member of the Senate Environment Committee. Almost everyone drafting acid-rain control legislation consults with Mr. Ayres and Mr. Hawkins.

NRDC lawyers say the tedious and complex work of monitoring and trying to influence the writing of regulations produces some of their most important results. While Mr. Hawkins presses Congress to enact stiff acid-rain controls, for instance, he presses on with his 15-year drive for tighter regulation of coal-burning plants. "We'll use the existing Clean Air Act whenever we can," he says.

Watching Over Industry

Without pressure from them and other environmentalists, NRDC attorneys argue, industry opposition can stall regulatory decisions or dilute laws into ineffectiveness.

"You can get Congress to pass a wonderful law," says Mr. Hawkins, "but that won't be enforced unless there are people in the trenches demanding it. You know there will be people on the other side" arguing industry's case, he says, "and they do a very good job."

Oklahoma Gas Leak Refocuses Some Facilities Seen Falling Through

When Margie Hicks saw a thick billowing fog outside the window of her home in Gore, Okla., last Saturday morning, she had no idea it was a deadly gas leak from Kerr-McGee Corp.'s nuclear fuel processing plant a few hundred yards down the road.

In fact, the only way she found out was from her brother—who called from Bos-

This article was prepared by Jonathan Dahl and Edwin A. Finn Jr. in Dallas, and Laurie P. Cohen in Gore, Okla.

ton. He had seen television reports of the leak that killed one worker and injured 32 others. Mrs. Hicks wasn't injured, but she's pretty angry. "We should have at least been notified," she says bitterly. "They're not letting people around here know anything."

The incident was hardly the first time residents near a serious industrial accident site have complained about not being properly notified. For years, civil defense officials have charged that chemical plants and some nuclear power plants don't prepare local communities enough to handle calamities. However, U.S. chemical manufacturing plants, operating in a harsh spotlight after the December 1984 gas-leak disaster in Bhopal, India, generally have stepped up safety programs both inside and outside the plant—with mixed success. Nuclear power plants are required to have evacuation plans.

But the Kerr-McGee facility here isn't a chemical plant or a nuclear plant. It is among those facilities—storage companies and even hospitals are other examples—that handle hazardous materials but can often fall through cracks in the regulations. In the U.S., for example, some 20,000 sites handle or store radioactive material. And at some, such as the Kerr-McGee facility near Gore, both radioactive materials and toxic materials are present, making the potential hazard to workers and the community complicated and confusing.

Emergency Plans Absent

"Nobody seems to be paying any attention" to such facilities, says Karim Ahmed, research director for the Natural Resources Defense Council, a New York-based public interest group. "Most of them don't have any plans (for surrounding communities) to deal with an emergency. They're just hoping that one doesn't happen."

A random survey of some facilities shows that procedures for coordinating contingency plans with local agencies often don't exist.

In Metropolis, Ill., local authorities con-

cede they're not prepared to deal with a potential gas leak at a nearby uranium processing plant, which is similar to Kerr-McGee's. Rick McClusky, a 11-year veteran of the town's fire department, puts it this way: If an accident ever happened at the plant, "I'd want to grab an air pack and run to the other end of the county."

In some cases, many local officials aren't even aware of the nature of a plant's operations. In Del Mar, Calif., Mayor Arlene Carsten says she didn't know that a plant five miles away made products that are used to produce nuclear fuel. "Are you sure?" asks Mrs. Carsten. "I thought they were a research group." The plant won't have gas leaks because its products are in solid form, but because they're radioactive, government officials say there is still a potential for danger.

Disturbing Picture

Such confusion was evident when a gas tank at Kerr-McGee's plant in Gore ruptured Saturday morning, spewing an eerie haze that finally dissipated 18 miles away. A reconstruction of the incident, pieced together from interviews with employees, investigators and others, paints a disturbing picture. The plant had no sirens to warn nearby residents. Civil defense officials initially thought the most serious hazard from the leak was radiation, when actually it was acid exposure.

"I was tramping around with a geiger counter checking for radiation—I could have walked into a pond of acid and lost my foot," says Donald Stewart, director of the Sequoyah County Civil Defense.

Besides that, the county's health department official couldn't find its copy of an emergency contingency plan.

The accident raises questions not only about safety outside the plant, but inside it. In Saturday's accident, for instance, employee error apparently was a major factor. And the company's written plan to cope with such an accident seems particularly impractical. Among other things, the plan recommends stopping up ruptured tanks with wooden plugs or tape—a formidable task if toxic gases are spewing.

"If we had followed the plan, we'd have all been dead," says a senior company official who was at the plant when the accident occurred.

Conversion to Nuclear Fuel

Kerr-McGee's plant is one of 42 facilities licensed by the Nuclear Regulatory Commission to convert uranium into nuclear fuel. The Gore plant converts cakes of unprocessed uranium into uranium hexafluoride, a mildy radioactive but highly toxic chemical. The hexafluoride is then heated into liquid and poured into shipping cylinders, normally a routine procedure.

Chronology of Gas Leak

- 8 A.M.** Workers on first shift at Kerr-McGee plant in Gore, Okla., begin work.
- 11-11:30 A.M.** Thick fog of gas from ruptured tank of uranium hexafluoride spreads across town.
- 11:30 A.M.** Fire department arrives, injuring Mr. Hicks. Thick fog of gas continues to spread.
- 11:42 A.M.** Local police arrive, leading to the discovery of the leak.
- 12:30 P.M.** Workers at plant work to contain leak. Memorial Hospital reports as toxic fog dissipates.
- 3 P.M.** Mr. Harrison, Regional Medical Director, Smith, Ark., 45 miles from Gore, Okla., reports to state health department.

NOTE: Based on interviews with employees, local authorities and company officials.

But something went wrong that day. When James J. Harrison, 45, an old shipping operator on his 11th day on a.m. shift, he discovered a gas leak. The cylinders were overfilled. Such overfills were common before, employees say. The gas leak is discovered by Mr. Harrison. The gas cools into solid form. Mr. Harrison is the one who found the tank.

At about 11:30 a.m., Mr. Harrison was working with enough force to lift the cover and spit out a bit of gas. Mr. Harrison, 45, would later die of cancer. Most of the other workers at the plant were still inside. As gas swept through the exits, "I thought about people were panicking," says Mr. Harrison. Lowe, a welder.

In the aftermath, workers have made some use of the plant's operating policy, and preliminary reports indicate the heating tank may have been to blame. Mr. Harrison suggests that the tank may have been to blame.

There are also indications that the plant's on-site alarm, which is to warn plant employees, was not working. Several employees said they didn't know anything had

Kerr-McGee Refocuses Safety Concerns

Drilling Through the Regulatory Cracks

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Nuclear Fuel

plant is one of 42 facili- the Nuclear Regulatory invert uranium into nu- ore plant converts takes zium into uranium hexy radioactive but highly The hexafluoride is then and poured into shipping ally a routine procedure.

Chronology of the Lethal Gas Leak

8 A.M. Workers report as usual for first shift at Kerr-McGee Corp.'s Gore, Oklahoma, nuclear fuel plant.

11-11:30 A.M. Plant worker James Harrison begins heating overfilled tank of uranium hexafluoride.

11:30 A.M. Tank explodes, fatally injuring Mr. Harrison and spewing a thick fog of highly toxic gas into the air.

11:42 A.M. Accident is reported to local police, who try to block roads leading to the plant.

12:30 P.M. First of 110 local residents and plant workers arrive at Sequoyah Memorial Hospital in Sallisaw, Okla., as toxic fog dissipates in Gore.

3 P.M. Mr. Harrison dies at Sparks Regional Medical Center in Fort Smith, Ark., 45 miles from Gore.

NOTE: Based on interviews with plant employees, local authorities and others.

But something went wrong last Saturday. When James Neil Harrison, a 26-year-old shipping operator, arrived for his 8 a.m. shift, he discovered that one of the cylinders was overfilled by almost 2,000 pounds. Such overloading has happened before, employees say, but usually the mistake is discovered before the hexafluoride cools into solid form. It wasn't caught this time and Mr. Harrison decided to reheat the tank.

At about 11:30 a.m., the tank ruptured with enough force to blow off a thick metal cover and spit out a huge cloud of acid vapors. Mr. Harrison, who was working outdoors, would later die from inhaling those vapors. Most of the other 31 workers at the plant were still inside when the tank exploded. As gas seeped in, they raced for exits. "I thought about dying, and some people were panicking," recalls Hubert Lowe, a welder.

In the aftermath, NRC investigators have made some unsettling disclosures about the plant's operations. The heating of an overfilled cylinder violates company policy, and preliminary findings by the NRC indicate the heating caused the rupture. Shortly after the accident, Kerr-McGee officials suggested that metal fatigue may have been to blame.

There are also indications the company's on-site alarm, which was supposed to warn plant employees, wasn't effective. Several employees said they heard the alarm, but others said they didn't. "We didn't know anything had happened until

(some co-employees) told us to leave," says Janet Tyler, a bookkeeper who had been taking a lunch break in a trailer outside the plant's main building.

Things outside the plant weren't much better. Local authorities concede that their response to the accident wasn't adequate. Some authorities blame the company, contending they weren't notified until at least 12 minutes after the rupture.

By then, the toxic cloud, pushed by strong winds, had wafted from the plant grounds and engulfed some of the people who live nearby. Five residents suffered respiratory problems from inhaling the fumes, hospital officials said. The company says it notified the proper agencies as fast as it could.

Police Fault Cooperation

Even after they were notified, local police officials say they didn't get full cooperation from Kerr-McGee. Gore's police chief says someone hung up on him when he tried to call the plant. And one of the first policemen called to the scene, J.W. Partain, set up a roadblock over a nearby highway but otherwise didn't know what to do. "There didn't seem to be anybody in charge," he recalls.

Kerr-McGee says it is reviewing some of its evacuation procedures; the only off-site plan it apparently had was to contact local authorities. Local agencies say they hope to improve their own emergency plans, which in most cases don't currently extend to chemical accidents.

"If it's a tornado, we would be ready. But you just can't gear up for something like this," says Ron Barnett, head of the county's health department.

One of the problems, according to some public interest groups, is that nuclear processing plants like the one here in Gore aren't required by the NRC to have extensive evacuation plans. By contrast, a nuclear power plant must have a plan to evacuate residents within a 10-mile radius.

Nuclear power plants also hold yearly evacuation drills and monthly safety meetings with local authorities. An NRC official says most other nuclear facilities don't need those requirements because "the degree of a potential hazard isn't as high."

Mr. Ahmed, of the Natural Resources Defense Council, doesn't agree. "Some of these plants are still dealing with a potential hazard . . . Does that mean they can be less safe?" he asks. And in light of Saturday's accident in Gore, many residents are asking the same question. "They're going to have to be a lot of things changed before anybody is satisfied, there's no doubt about that," says Mr. Stewart of the civil defense office.

Wirth lines up support for new Superfund

Nov 24 '85, 1B and 7B

By Daniel P. Jones
Denver Post Natural Resources Writer

Rep. Tim Wirth has helped gather more than 120 House members' signatures to push for a strong, new Superfund bill for cleaning up old toxic waste sites.

But none of the other members of the Colorado delegation has signed the letter, sent last month to House Speaker Tip O'Neill and Minority Leader Robert Michel.

Republicans Hank Brown, Ken Kramer, Dan Schaefer and Mike Strang, and Democrat Pat Schroeder each gave different reasons for not signing it.

Wirth, a Democrat from Boulder, said he hoped the other members of the delegation would sign. "I would think it would be an issue people would like to coalesce around."

Each member of the state's delegation has at least one of Colorado's 14 Superfund sites in his or her district.

The letter twice was sent to every member of the House, added Wirth. Of the 127 who signed, 15 are Republicans.

"We are sorely disappointed that no other members of the Colorado House delegation are willing to stand up in support of strong Superfund legislation now," said Maggie Fox, southwest regional representative of the Sierra Club.

"Signing this letter is not a token gesture, but an important statement," she said, adding that for her group Superfund is the most important environmental vote this year.

The original 1980 Superfund law expired at the end of September, and Congress still is struggling to pass a new bill. There are several House versions of the bill, and observers said they expect a vote on Superfund reauthorization possibly as early as the week after Thanksgiving.

The letter calls for minimum requirements for whatever bill finally gets passed. Those requirements are:

✓ Establishment of cleanup schedules and national cleanup standards to guide the Environmental Protection Agency, which has cleaned up only a

handful of toxic waste sites since the program began in 1980.

✓ Giving citizens the right to sue companies to stop pollution if the EPA and states are not taking action.

✓ Maintaining polluters' liability for future cleanups and their responsibility for current problems.

✓ Providing funding for cleaning up leaking underground gasoline tanks and imposing liability on those responsible for such leaks. Leaking tanks are a major source of ground-water contamination, according to the EPA.

✓ Guaranteeing citizens the right to information about the health effects of toxic wastes and their right to know which toxic chemicals are being used and discharged in their communities. Many states already have passed such laws, but not Colorado.

The citizens' lawsuit provision is the most controversial.

"The citizens' suit part of it probably is kind of a litmus test for whether you're

Please see **SUPERFUND** on 7-B

PAC CONTRIBUTIONS

Political Action Committee (PAC) contributions from top 25 chemical companies to U.S. representatives from Colorado, between 1981 and 1984.

✓ Dan Schaefer, Republican: \$11,030. (Includes contributions received for a special election in 1983.)

✓ Hank Brown, Republican: \$4,850.

✓ Ken Kramer, Republican: \$4,800.

✓ Pat Schroeder, Democrat: \$200.

✓ Tim Wirth, Democrat: \$750.
Average amount for all House Republicans: \$5,172.

Average amount for all House Democrats: \$1,712.

Source: Public Citizen

Superfund letter gets cool Colo. reception

SUPERFUND from Page 1-B

with a community-health approach or with companies," said Wirth.

Schroeder, a Denver Democrat, chose not to sign for strategic reasons, said aide Dan Buck.

The congresswoman agrees with the positions taken in the letter. But the letter is considered critical of a House committee Schroeder is negotiating with over cleanup of the Rocky Mountain Arsenal. So she chose not to rankle the powerful committee chairman, said Buck.

Other members of the Colorado delegation, all Republicans, dislike some of the provisions.

Schaefer supports a bill that would not allow citizens to sue polluting companies to force cleanups, while allowing them to sue the government. Lawsuits against polluters would stall cleanups in the courts, said David Wardrop, an aide to the Lakewood Republican.

Schaefer also supports a slower cleanup schedule than Wirth. And, under the bill Schaefer supports, stiffer state cleanup standards would apply only to federally owned toxic waste sites, not those owned by private companies.

Schaefer's district includes a proposed Superfund site at the Martin Marietta Aerospace complex in southern Jefferson County, where the company has pledged to clean up an old waste site on its own.

Brown said he is leaning toward voting against giving citizens the right to sue. "I just think that we should be careful about encouraging attorneys to bring lawsuits," the Greeley Republican said.

Brown said he thought the other

provisions in the letter were reasonable, but he will wait to see what versions come up for votes before he takes specific positions.

The liability provision, however, should be amended to ensure that "someone who does nothing wrong should not be held liable," added Brown.

Brown's district includes Denver's toxic waste dump at the Lowry Landfill southeast of Aurora, and two other Superfund sites in Commerce City.

Brown, Kramer and Strang said they never received the letter. Dozens of such letters circulate through Congress each week, they said.

Kramer, a candidate for the Republican Senate nomination, said he hasn't decided about the citizen-suits issue. "I'm not against it," he said. But he added he's concerned that lawsuits "could get out of hand."

On the liability question, he said polluters should be held responsible only for their own contributions to toxic-waste problems. Under current law, one or all polluters can be held responsible for total cleanup costs.

He generally supports the concepts in the other provisions, but, like Brown, wants to see specific language before making decisions.

Kramer is from Colorado Springs, and his district includes the California Gulch Superfund site, a polluted mine drainage area below the Yak Tunnel near Leadville.

Strang, a freshman congressman representing the Western Slope, has not been briefed by his staff on Superfund. So he has not taken positions on the various provisions, said aide Jim Huska.

Scientists Look to the Sewers As a Source for Usable Water

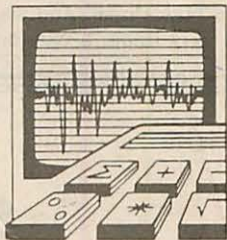
By WILLIAM E. BLUNDELL
Staff Reporter of THE WALL STREET JOURNAL

TIJUANA SEWAGE is the Babe Ruth of sewage. Along with the usual unspeakable ingredients, it contains so much industrial waste you can almost light it, assuming you can stand getting close enough. Bert Elkins loves the stuff. He imports 12,000 gallons a day.

As general manager of the San Diego Region Water Reclamation Agency, Mr. Elkins is supposed to find new ways to get usable water from sewage, thus easing the local area's 90% dependence on a shrinking supply of imported water. If he can scrub up Tijuana's inky goo, he reasons, he can clean anything. And he and others across the country are succeeding—thanks largely to cheap, low-tech methods and ingredients drawn from nature.

Among other things, people are mixing sewage with ground clay (used in treating the gunk from over the border), passing it through artificial swamps and natural peat bogs, and running it in sheets over planed and tilted land. Many of these efforts are more than laboratory exercises; the Environmental Protection Agency has funded some 400 innovative operating projects nationally.

Innovators often are getting results far superior to conventional treatment at a fraction of the cost and sometimes produce valuable byproducts in the bargain. "Why not use nature's technology? It's usually better than man's," says one sewage maven working with water hyacinths.



HE HAS A POINT. If the machinery or the microbes in a conventional sewage plant break down, the results can be appalling. This happens frequently; in one federal study, 87% of the plants checked were discharging excess pollutants. Even when the plants work well, they can't remove much nitrate, heavy metals or pesticides. And they produce mountains of sludge fit only to dump in landfills that are already topping out everywhere. (The theme of a recent California conference on sewage was "Where Do You Want It Put?")

But Mr. Elkins's pet process, developed by a Minnesota Mining & Manufacturing Co. scientist, turns Tijuana sewage into tap-clear water in an hour and produces construction material instead of sludge. In his pilot plant, the sewage is swirled with ground clay and a dash of alum and acid. The clay bonds instantly with the solids and drops out of the mixture. Then it is kiln heated and emerges as puffed-up pellets of iron and carbon compounds used to make a strong, lightweight concrete aggregate worth \$90 a ton.

THE PROCESS ALSO REMOVES 66% to 100% of six common heavy metals from the water and about the same percentages of pesticides and industrial chemicals. No conventional plant can do this, and industries that now must spend millions on pre-treating or separately disposing of such wastes are backing his work. Mr. Elkins, who has run the pilot plant for two years, calculates that a large one would cost half as much to build and run as a conventional plant would; sell the aggregate and the reclaimed water at perhaps half the going price for each, and the operation would run at nearly no cost.

Meanwhile, staff microbiologist Richard Gersberg is getting high-quality water by passing sewage through a long rectangular bed of bulrushes with sand at the far end. The plants, microbes and other tiny swamp critters munch up or break down the impurities, including nitrates and even viruses. Mr. Elkins estimates that five acres of rushes could handle secondary sewage treatment for a small community and operate as a bird refuge at the same time.

Down the road, the city of San Diego is already commercially treating up to 300,000 gallons of sewage a day in an artificial swamp. After initial settling-out of solids, the effluent is passed through 400-foot beds of floating water hyacinths, whose dense, hairy roots harbor a multitude of sewage-crunching microorganisms. Duckweed suppresses algae and gambusia fish gobble mosquito larvae.

STEVE PEARSON, director of the aquaculture project, says its only troubles have been mechanical, not biological. "Natural processes are much more resilient, more forgiving," he adds. The city now plans a hyacinth-equipped plant three times larger to irrigate all of Balboa Park, its biggest preserve.

These are but steps toward San Diego's ultimate goal: getting torrents of drinking water from sewage at reasonable cost. The city figures that money saved on hyacinth treatment can offset the cost of high-tech finishing steps needed to make water potable.

San Diego already makes what it considers drinkable water at a demonstration plant, running successfully for years, which puts hyacinth-treated effluent through reverse osmosis and other processes. Armand Campillo, director of the Water Utilities Department, has loyally consumed it. Perrier it's not, he says, but it tastes better than the regular supply, which tastes awful.

But he will have to convince health agencies first. Currently, water from sewage cannot be directly drunk in San Diego or anywhere in the U.S., a ban the city hopes to lift with a \$4.5 million health study. But even if it succeeds, will the populace drink willingly?

Clearly, PR is needed. Mayor Roger Hedgecock supplies some by reminding people that they're already drinking what could once have been Cleopatra's bath water. Others speak euphemistically of total resource recovery, recycled supplies—anything but what the product is. A visitor suggests calling it pre-owned water. But the problem is a persistently knotty one. Sighs one bureaucrat: "Any way you slice it, it's still sewage."

Adams water contaminated by chemicals

D.P.
July 17
page 1-A

By Daniel P. Jones

Denver Post Natural Resources Writer
Copyright 1985, The Denver Post Corp.

Cancer-causing chemicals have been found in wells that supply drinking water to about 30,000 Adams County residents, according to the U.S. Environmental Protection Agency.

Traces of pollutants — including the highly poisonous industrial solvent TCE and eight other known or suspected carcinogens — were found in South Adams County Water and Sanitation District wells and private wells sampled last year and in January.

"It's one of the few documented cases of contamination into a public water supply in Colorado," said Walter Sandza, the EPA officer in charge of investigating the South Adams ground-water contamination.

TCE can damage the nervous system, liver and kidneys, and causes liver cancer in mice. To safeguard human health, the EPA recommends that no TCE or four other pollutants found in the district's wells and taps be allowed in drinking water.

But not until late Friday did the EPA decide to meet with state health officials to discuss the problem. The EPA may recommend that the water district shut down its most contaminated wells, Dave Schaller, of the regional EPA office, said.

"The EPA and health department never notified us that they're concerned" about the contamination, Larry Ford, water district manager, said early Friday.

Whether the pollutants have harmed people is not known. And the Colorado Health Department — denied funding by the Legislature for its environmental epidemiology section — says it does not have the money or staff to find out.

"We've been essentially stripped of any resources to do any investigations into health effects," said Dr. Stanley Ferguson, the health department's director of disease control and epidemiology.

Please see TCE on 13-A

Money cuts halt study of health risks

By Daniel P. Jones

Denver Post Natural Resources Writer

Colorado, unlike most Western states, doesn't have the money or manpower to find out if environmental pollution is making people sick or possibly even killing them.

The state Legislature abolished the Colorado Health Department's environmental epidemiology program last year, forcing it to halt several important investigations affecting people's health. This year, the Legislature resurrected the program — but didn't fund it, saying the department could find the money to run the program.

New Mexico, Arizona, Utah and Oklahoma are among 29 states whose health departments have programs to investigate whether environmental problems, such as contaminated water, toxic waste dumps and air pollution, are harming people. Nebraska also has a program, which is funded by a federal grant.

But Colorado health officials say that without additional money, they can't resume the studies halted last year. And they can't examine whether cancer-causing chemicals in Commerce City's water are harming people who drink it, said Dr. Stanley Ferguson, the health department's director of disease control and epidemiology.

The U.S. Environmental Protection Agency's consult-

Please see RISK on 12-A

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Stockman, director of the Office
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e program "reduces market-
ciency and national investment,
lion and economic growth by
ng political and bureaucratic

LOANS on 17-A

WEATHER

DENVER AREA: Becoming partly sunny, with scattered afternoon and evening thunderstorms. Clearing and mild tonight. Highs, 85-90; lows, 57-62. Details on Page 11-B.

INDEX

- | | |
|-------------------|---------------------|
| Business 1-20F | Metro 1-12B |
| Classified 1-48H | Perspective 1-4, 8G |
| Crossword Empire | Real Estate 1-28E |
| Editorials 5-7G | State & Region 6B |
| Funerals 11B | Sports 1-18C |
| Lively Arts 1-24D | Travel 1-8T |

Greenpeace activists confront Monsanto workers and management after plugging a discharge pipe, last August, at the Everett, Massachusetts chemical plant. The following day, Monsanto officials agree to convert the plant to closed-loop cooling and cease discharging toxic wastes into the Mystic River.



Cathy Dees

The problem is awesome—more than 77 billion pounds of hazardous waste are produced each year by United States industry alone.

Cadmium. Benzene. Plutonium. Mercury. Dioxin. PCB. Vinyl Chloride. Cyanide. "Hexa" (Hexachlorocyclopentadiene). The most dangerous substances in the world—ever.

More than 90% of this toxic waste will be "dumped" into oceans, rivers and bays . . . lakes, lagoons and estuaries . . . in the name of economy, greed and ignorance.

THE EFFECTS are just as awesome—epidemics of liver and rectal cancer in the Mississippi Delta; widespread paralysis, deformity and death from mercury poisoning in Japan; liver, kidney cancer, and birth defects in the Great Lakes region; worldwide destruction of marine habitats—including the main breeding grounds of cod, herring and plaice in the North Sea.

GREENPEACE believes it has a way to stop this destruction.

Because the GREENPEACE

philosophy is this—life must be saved by non-violent confrontations and by what the Quakers call "bearing witness." A person bearing witness must accept responsibility for being aware of an injustice. That person may then choose to do something or stand by, but may not turn away in ignorance. The GREENPEACE ethic is not

only to personally bear witness to atrocities against life; it is to take direct action to prevent them. While action must be direct, it must also be non-violent. Our greatest strength must be life itself, and the commitment to direct our own lives to protect others.

Won't you join us in defense of Life?

You can help save the

critical habitat of the seas by supporting and sharing the work of GREENPEACE. What it takes is hundreds of thousands of dollars to outfit our sea-going campaigns and expeditions; to provision and fuel our ships for non-violent confrontations against the toxic waste dumpers; money for legal aid, scientific research, education, publicity, lobbying on an international scale—and to help GREENPEACE spread the message about the awesome threat to life from toxic wastes.

GREENPEACE has always depended upon thousands of concerned individuals like yourself for support—we receive no money from governments or large corporations.

Whatever you can afford—\$15, \$25, \$100 or more—you will help GREENPEACE stop this frightening chemical warfare against Life by supporting the Toxic Waste Project.

The Greenpeace Toxic Waste Project

"Ecology teaches us that humankind is not the center of life on the planet. Ecology has taught us that the whole earth is part of our 'body' and that we must learn to respect it as we respect ourselves. As we feel for ourselves, we must feel for all forms of life—the whales, the seals, the forests, the seas. The tremendous beauty of ecological thought is that it shows us a pathway back to an understanding and appreciation that is imperative to that very way of life.

"In Greenpeace, we are ecologists, actively working to protect our fragile world. We have fought atmospheric nuclear testing in French Polynesia, and won. We have confronted the Russian whaling industry at sea, and driven them from North American waters. We have helped to publicize the slaughter of dolphins by tuna fishermen. And we have helped expose the brutality of baby seal hunting in Newfoundland. In the name of ecology.

"Today, toxic and nuclear waste dumping threaten the life of the seas themselves. Our responsibility as ecologists has increased a hundredfold—in direct proportion to the increased irresponsibility of the toxic waste dumpers."

**TOGETHER WE MUST
SAVE THE SEAS!!!
BUT PLEASE ACT
TODAY!!!**

GREENPEACE CAPSULE HISTORY

The Greenpeace Foundation was formed in Vancouver, British Columbia, to focus public concern about nuclear tests by the Atomic Energy Commission at the Amchitka test site in Alaska. Within a year of the voyage of the original GREENPEACE I and GREENPEACE II (a converted halibut ship and converted minesweeper) the Amchitka test site is closed. Today Amchitka Island is a bird sanctuary.

GREENPEACE III sails to Mururoa Atoll in South Pacific, site of French atmospheric testing. David McTaggart and Greenpeace crew refuse to leave nuclear test zone. French minesweeper rams GREENPEACE III, forcing return to New Zealand.

GREENPEACE III returns to Mururoa. French commandos board ship and savagely beat David McTaggart and Nigel Ingram. McTaggart partially blinded by blows. Photos of beatings shock public. The following year the French government ceases all atmospheric nuclear tests.

GREENPEACE V & VI confront Russian whaling fleet 60 miles off U.S. coast. In inflatable Zodiacs, Greenpeace crew members stay between whales and whalers, ducking as 250-lb. explosive harpoon flies overhead and into female sperm whale.

GREENPEACE goes to Newfoundland to protest Norwegian and Canadian slaughter of harp seals; Greenpeace protesters stand in path of Norwegian ice breaker and bodily protect seals from hunters' clubs. Greenpeace confronts DALNIY VOSTOK, the Soviet whaling fleet. Russians abandon hunt, reluctant to kill whales while Greenpeace monitors.

RAINBOW WARRIOR intercepts British nuclear transport ship GEM as it sails to dump 200 tons of radioactive waste into ocean. Greenpeace crew moves Zodiacs directly under dumping platform. GEM crew members push 700-lb. steel and concrete cylinders overboard. Zodiac hit. Film of incident released to British media. Rainbow Warrior wages campaign against delivery of nuclear wastes from Japan to United Kingdom and France.

RAINBOW WARRIOR halts slaughter of 6,000 gray seals in Scotland's Orkney Islands.

RAINBOW WARRIOR enters Icelandic waters. Five harpoons fired at close range over Greenpeace crew aboard inflatable boats. Years of lobbying results in U.K. ban on all whale products; President Carter supports whale moratorium; International Whaling Commission passes U.S. motion to ban deep sea whaling; Indian Ocean designated whale sanctuary.

GREENPEACE blockades toxic waste dumping ships in Rotterdam and Nordenham, Netherlands. Worldwide attention drawn to destruction of North Sea fisheries from acid and nuclear wastes; international campaign to protect the seas begun. Greenpeace Great Lakes begins monitoring toxic waste disposal in Great Lakes area. Greenpeace and other environmental groups halt uranium mining for seven years in British Columbia, Canada.

RAINBOW WARRIOR hinders seal slaughter in Newfoundland, Canada. Greenpeace representatives attend Council on International Trade of Endangered Species in New Delhi, India. Three whale species given full protection by 67 countries. Greenpeace member chains herself to sea-going Japanese whaling vessel. Greenpeace attends International Whaling Committee in England.

GREENPEACE goes to the Atlantic to protest the ocean dumping of nuclear wastes. After five weeks of international campaigning, the Netherlands, with over 15 years of dumping operations behind them, announced it would stop dumping nuclear wastes at sea.

GREENPEACE USA, 1700 Connecticut Ave., NW, Suite 305, Washington, D.C. 20070

GP-BG4

STOP TOXIC WASTES



**YOU CAN
SAVE THE SEAS
BEFORE IT'S
TOO LATE**

Jan 24 8c, p. 23

Letters to the Editor

Unseaworthy Project

Your Dec. 31 editorial "Blocking Waste Disposal" managed to combine an ill-reasoned endorsement of the burning of highly toxic wastes at sea with an equally shallow manifesto against environmentalists.

You implied that a forfeited \$63.8 million loan guarantee from the Federal Maritime Administration to the now-bankrupt Tacoma Boatbuilding Co. to construct two incineration ships can be blamed on "perverse" environmentalists. Under different circumstances, would the Journal not decry such ill-fated government hand-outs? Perhaps the opportunity to launch an attack on the environmental movement warrants such an about-face of philosophy.

You extoll the plans of Waste Management Inc. to proceed with the process, while you condemn those who "prefer to ignore" incineration data. Your tribute to Waste Management preferred to ignore the company's record of violations reported in the news pages of the Journal.

In one of the ocean incineration test burns which the Journal pronounced to have occurred "without incident," 270 pounds of Agent Orange was dumped near Johnston Atoll in the Pacific in 1977. In others, monitoring equipment has failed, or clogged. The standards for "safe" burning of toxics at sea are based on land incinerators, which are more closely monitored and do not need to perform in the eight- or ten-foot waves common in the proposed Atlantic site. The EPA's own Science Advisory Board last March, called sampling procedures used in past test burns "scientifically inappropriate."

The "environmentally concerned" nations of Western Europe who practice ocean incineration are, in fact, pressing for a review of its safety. Through the EEC's Council of Environment Ministers and the London Dumping Convention, an international treaty on the introduction of toxics to the ocean ecosystem, a review of monitoring processes is under way. The LDC, to which the U.S. is a signatory, cautions that ocean incineration is at best a temporary solution.

Also ignored were the inherent risks in transportation of toxic wastes. PCB- and dioxin-contaminated waste from all over the U.S. will be shipped to densely populated ports (Philadelphia, in the current proposal), transferred from rail or truck to storage tank, and then to incinerator ships, and navigated through busy shipping lanes. While no current disposal methods guarantee safe transport and storage, plans for ocean incineration multiply the risks. Further, neighbors of the Philadelphia storage site and other proposed or designated burn and storage locations have arbitrarily received the risks of a highly questionable means of disposing wastes produced in other parts of the nation.

It has apparently also slipped the collective minds of your editorialists to con-

sider "source reduction"—reducing the volume and toxicity of waste to be disposed. While reduction has been a stated part of EPA policy for years, no substantial programs are under way.

Finally, your assertion that Greenpeace has raised valid questions about the safety of ocean incineration "to scare up new support. . . and contributions" is simply childish.

PETER DYKSTRA
Greenpeace USA

Washington

* * *

Your soapbox enthusiasm in blaming the environmental opposition blinded you to a classically simple, unfortunate financial story.

Read the last several years of Tacoma Boat's reports and observe the patterns as their financial condition from shipbuilding operations worsened. Think about capital-intensive ventures like At-Sea Incineration that have high working-capital needs to survive start-up—but unfortunately experience shrinking financial resources. Look at timing issues in your example and you may see that these two companies ran aground because of fundamental financial issues. At-Sea Incineration didn't survive long enough to experience permitting delays—and any intelligent investor of capital in hazardous waste treatment business better equip themselves with sufficient working capital to get through a complex and exhaustive permitting process.

Don't blame the environmentalists for the Maritime Administration's bum decision making in guaranteeing the mortgages on those two ships! What does that agency know about the hazardous waste treatment business anyway? And how do incinerator ships support the "national defense and promotion of international commerce" goals that are the basis for the Merchant Marine Act? This is a good example of "off-base" bureaucracy stumbling into unknown areas (by the way, how are their drill-rig mortgages doing?) at the expense of the taxpayers.

Before you write off this letter as being from a "mischievous pseudo-environmentalist" you might note that Sunohio has been in the hazardous waste treatment business for four years and has done reasonably well for a small company—without having the government guarantee our financing! While we don't always agree with the environmentalists, in this case they got a bad rap from the usually astute Wall Street Journal.

WILLIAM B. MALING
President and CEO, Sunohio
Canton, Ohio

Vote of Confidence

Stephen Thomsen's letter . . . claims that data on "

Clean-Smoke Outlay Should Be Scrubbed

When politics gets into technology, you can be sure of one thing: the wheel will be rediscovered and taxpayers will be stuck with a megabuck bill. As a typical example, see the latest proposal to spend \$5 billion to reduce acid rain by finding cleaner technologies for burning coal (back page, Jan. 9).

What's wrong with that proposal? Plenty. Even though \$5 billion to be spent over the next five years is a piddling sum—the Defense Department spends more than that in one week—it will be a waste because:

(a) The tonnage of sulfur dioxide emissions has declined by about one-fourth since the mid-1970s because (if nothing else) conventional beneficiation technology—which cleaned less than 50% of all coals burned by electric utilities 10 years ago—now cleans more than 70% of all coals used for power generation;

(b) The research work on advanced precombustion coal-cleaning technology is already succeeding;

(c) Clean coal combustion technology is already at the commercial stage with fluidized bed boilers;

(d) Postcombustion clean coal technology (a.k.a. "scrubbers") has been around for at least 20 years.

Taxpayers will get nothing for \$5 billion.

Everybody is in favor of cutting expenditures. True! But inaccurate because everybody's attitude in this regard boils down to: "Cut my neighbor's subsidy, not mine."

EUGENE GUCCIONE
Editor
Coal Mining

Chicago

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"Public Is Willing to Pay Price" For Pure Air and Water

Most toxic dumps in the Superfund program will be cleaned up in eight to 10 years, says the agency head. On the agenda: Regulating small producers of poisons, controlling ozone.

Q. Mr. Thomas, the President has made cleaning up toxic dumps a top environmental priority. How quickly are you adding to the handful already cleaned up?

A. Pretty fast. Of the 800 most critical sites, we have started in-the-field action at about 450 of them. We'll be at work in over 600 sites by the end of the year. Thus far, we've completed cleanup at about 20 sites, and they are being monitored to make sure the contaminants don't return.

Q. What about the sites not scheduled for cleanup?

A. We've stabilized them. That means we go in, stop the source of the environmental threat, erect barriers to seal off the area and go away. Then we investigate the extent of contamination and lay out a long-term cleanup plan.

Q. Is there any end to this job, or are you really taking on something that's never going to be finished?

A. We'll get most of those sites behind us and cleaned up over the next eight to 10 years. By then we will complete most of the work that you now know of as the Superfund program. It's about a three-to-five-year process from the time we start on one of those priority sites until we finish the monitoring of the cleanup and take it off the list.

Each site has to be chemically analyzed as to exactly what is there and where it is located. Then, before the bulldozers and work crews get busy, engineers have to figure out whether to treat the waste on the spot or transport it.

We estimate that the 800 most critical Superfund sites will grow to about 2,000 when we've finished our assessment. We can start to tackle about 150 more sites every year, so it will be 1995 when most of the toxic-waste dumps will be behind us.

Q. Just what do you mean by "cleanup"?

A. We clean them up to the point that the vast majority of them would not present a health threat or a problem for human habitability. If there is any question about the safety of people living in an area, we may designate it off limits for housing.

Q. "Cleanup" often means moving contaminants from one site to another. Is creating larger dumps the best way to do it?

A. When you move waste from a totally uncontrolled situation to a controlled situation, you've made a significant step forward, even if you've got a problem at the place to which it's taken. You have to make a trade-off when you clean up a Superfund site. Ultimately, we need to move away from burying waste, and that's the way we are moving. New regulations ban such disposal unless it's been treated. Over the next

three to five years, you'll see the vast majority of waste either not buried or treated to the level that it's not a threat to public health or the environment before it's buried.

Q. Does the insurance industry's reluctance to write liability policies undermine cleanup progress?

A. The segment of the insurance industry that has been underwriting environmental-impairment liability has almost collapsed over the last six to nine months. It's not limited to toxic waste, either. They're backing away from some of what they consider the more risky policies—for example, EPA's asbestos-in-schools cleanup. This is a 50-million-dollar program where contractors are backing away from doing the work because they can't get insurance. The same problem is happening with Superfund cleanup.

So far, it has not slowed down momentum. But a number of contractors say their insurance firms have notified them that when their policy comes up for renewal they may well not be renewed. So we're meeting with the insurance industry to look at the cause of the problem and what some solutions may be.

Q. How much of a problem is illegal dumping of hazardous wastes, and what are you doing about it?

A. It's a problem, but it's not on the increase. Right now, though, we're most concerned about what will happen when small-quantity generators come under our regulatory eye in November. They were exempt until Congress amended the Resource Conservation and Recovery Act in 1984. I'm talking about dry cleaners, some service stations, small recyclers—people who generate less than a ton of wastes a month.

In our criminal-enforcement program, we have two-man teams of armed investigators with arrest powers in each region. Recently in Seattle, the officers of a large company, Wyckoff Company, were convicted of dumping illegal toxics into Puget Sound. One of them is going to prison.

Q. Is the cost of cleaning up pollution shifting to consumers?

A. Clearly, it eventually trickles down to consumers. For instance, our proposal for paying for Superfund through 1990 is to triple the size of that program. It comes from a tax on the chemical industry. We've proposed also a tax on waste disposal. But, eventually, manufacturers shift those costs to their product lines, and eventually it hits consumers. As an example, I just established regulations a month or so ago limiting nitrogen-oxide and particulate-matter emissions from heavy-duty trucks and buses. It will increase the cost of producing these vehicles. That cost will eventually get translated into the price.

Q. What about more-direct costs?

A. A good example is in automobiles. As we take lead out of gasoline, that's going to cost people at the pump. As we look at

Lee Thomas, 41, became head of EPA's hazardous-waste program in 1983 and took over as chief in January, 1985. He formerly led the Federal Emergency Management Agency task force to control dioxin at Times Beach, Mo.



MELISSA PIERRE—USAWAIVE

Requiring "more inspection and maintenance of automobile emissions systems has a fair impact on air pollutants."

control of auto exhaust emissions, one of the things we've required more and more around the country is inspection and maintenance of automobile emissions systems. Consumers don't particularly like that.

It has a fair impact on controlling air pollutants. But it's an example of two direct impacts on the consumer. In addition to the hit in the pocketbook, there's also a kind of hassle factor to contend with because of pollution control.

Q Are industries still reluctant to clean up their waste?

A I don't find a general resistance to regulation from industry. What I find is an interest in trying to have as much dialogue as possible during the regulatory process. Industry wants to make sure the solution is technologically possible and not too expensive. Generally, the response is: "How do we comply? How do we try to get as much of our side of the science and technical information on the table as possible?"

Q In spite of the clean-air gains of the past decade, smog is still a problem in Los Angeles, Denver and some other major cities. Are you considering sanctions against them?

A We're going to have major problems in 1987 in a lot of urban areas around the country in meeting the clean-air standards, especially for ozone. Controlling ozone will probably have more impact on individual lives than a lot of the other pollution controls. We've already dealt with most of the major contributors to ozone emissions—sources such as paint factories. Now we're coming down to smaller things, such as controlling the vapors that escape when you fill your car up with gasoline at the station.

Q Can EPA veto industrial expansion?

A We can, when an industry goes into an area or when an industry wants to expand in an area already wrestling with pollution. Places with major problems in meeting air-pollution standards actually have to show how they're going to reduce pollution in one area before they can get a permit to increase it in another. That's having a substantial impact in a lot of areas around the country.

Q How safe are U.S. communities from chemical-plant mishaps such as the one that occurred in Bhopal?

A I think that they are safe. What you have to do is try to insure that the regulatory program and local emergency preparedness are all as good as you can make them.

Q Of all the toxic substances released by chemical plants, how many are monitored by EPA?

A Most of them are regulated under our reportable-quantity authority of Superfund. There are several hundred substances listed. We do have a responsibility to see that a response is taken to a major release of any of these substances.

Q Is acid rain being studied to death? When are answers going to emerge?

A Only two things would cause a change in policy from where we are now. One is if new research findings somehow reduce the scientific uncertainty about acid rain. Then I could say either: "No, I don't think additional controls are necessary," or "Yes, it appears additional controls would be helpful." Or if we're facing some kind of ecological emergency.

We don't think there are clear-cut answers, either as to the causes of the problem or how much of a problem it is. The information I've been shown doesn't suggest that what we're looking at is an irreversible phenomenon. I've spent probably as much time in the four months I've been administrator reviewing the acid-rain issue as I have any other issue. I don't see any quick answers to it.

There is evidence that sulfur-dioxide emissions have come down 36 percent, nitrogen-oxide emissions have fallen substantially. We think both substances are the primary precursors of acid rain. If our findings are correct, then we've made substantial progress. As a matter of fact, we're making more progress than most any other country.

Q If compound 1080 is reintroduced for poisoning coyotes, how will other species be spared?

A Controlling the way these poisons are used is the issue you always face with pesticides and rodent poisons. I recommended using toxic collars. They are placed around the neck of a sheep, and when the coyote bites the sheep, it kills the coyote. The sheep dies, too, but so does the coyote. Extensive experiments have shown no impact from the poison, especially in toxic collars, on endangered species—certainly not the same kind of impact of large bait stations that could attract all sorts of animals.

Q The compound was banned 13 years ago. Why bring it back?

A There are extremely strong opinions on all sides of that. The sheep owners and ranchers are anxious to control coyote damage to their herds. Environmentalists and conservation groups concerned about endangered species and animals generally are worried about compound 1080 spreading through wildlife. This time, there are controls over how the collar is applied, who applies it, how frequently it is checked so you get your toxic collar back.

Q Will EPA's program to control pollution from farmland mean tighter controls on fertilizer and pesticide use?

A General agriculture practices, buffer zones around fields, understanding what happens to irrigation and rain when it runs off a field—all of those things are going to get a lot more emphasis than ever before. We're also beginning to look more closely at the characteristics of pesticides and whether there should be more restrictions because of surface and ground-water contamination.

Q As reports of contaminated ground water increase, is it conceivable that a day is coming when aquifers will have to be declared off limits for drinking water?

A The amount of contaminated ground water is very small compared to the amount of ground water that's available for use in the United States. But there are certain areas where you would find a contaminated aquifer that certainly should not be used for drinking-water purposes. It might be contaminated from natural sources or from a toxic-waste Superfund site.

Q Can our economy and federal budget accommodate the rising costs of clean air and clean water?

A That's a very real issue I think we have to look at as we regulate. The economic burden has been substantial. But, clearly, the economy could stand it. The public wanted it, and that is the direction we are continuing to follow. We'll continue to impose additional environmental-protection measures, and I think the public is willing to pay the price. □

No federal regulations limit toxic

By Daniel P. Jones

Denver Post Natural Resources Writer

Trichloroethylene, routinely used to remove grease from metal, is turning up in drinking water across the country and may cause cancer.

TCE also is used in decaffeinating coffee, in dry-cleaning and in making such commonly used products as pesticides, waxes, gums, resins, tars, paints and varnishes.

"Its use is widespread throughout Commerce City" and industrial areas in every state, said Walter Sandza, the U.S. Environmental Protection Agency's project officer investigating contamination in the South Adams Water and Sanitation District's water supply.

TCE has been found in Commerce City drinking water, in a now-closed Denver Water Department well downhill from the Martin Marietta Aerospace complex in southern Jefferson County, and in hundreds of water supplies across the nation.

Yet no federal regulations control TCE in drinking water.

Last year, as a first step toward limiting TCE in drinking water, the EPA recommended that no TCE whatsoever be allowed in water supplies. The agency's concern stems from evidence that TCE damages the nervous system, kidneys and liver in humans and causes cancer in animals.

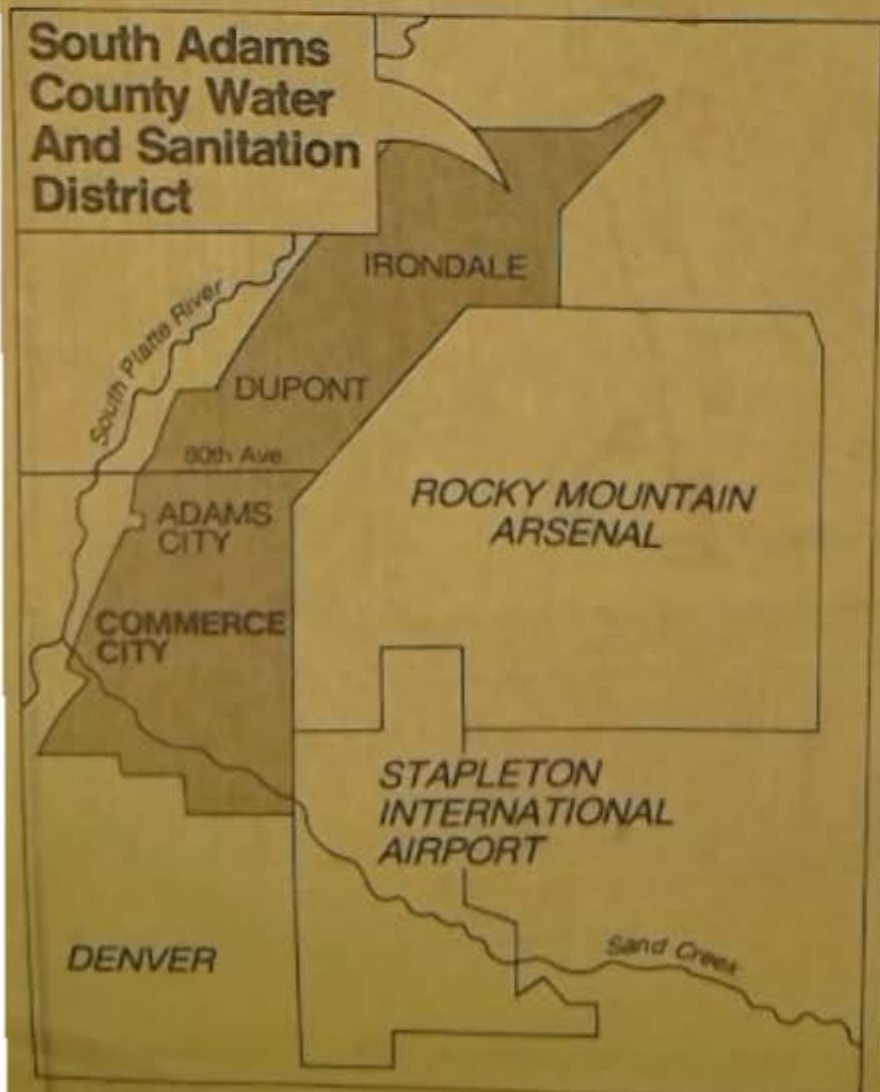
Researchers from the National Academy of Sciences, the National Research Council and the EPA consider TCE a likely human carcinogen because it causes liver tumors in mice. However, there is a scientific debate about TCE's ability to cause cancer in humans.

If TCE comes into contact with hot metal or the sun's ultraviolet rays, it is broken down to form byproducts, including phosgene, a deadly nerve gas. TCE's ability to damage the liver greatly increases if alcoholic beverages are consumed, according to a 1984 report



The Denver Post

Walter Sandza: The use of TCE is widespread throughout Commerce City.



The Denver Post / Peter Henry

The water district serves 30,000 people in Commerce City, Adams City, Irondale and Dupont. Most of the contaminated wells are in Commerce City, south of East 80th Avenue near the arsenal.

The Sun

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MEN'S

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- Selected Men's Knit Sweaters 50%

day, July 14, 1985

TCE pollutant in drinking water

by the Office of Technology Assessment, the scientific arm of Congress.

A few states, including Florida, California and New Hampshire, have set drinking water limits of 3 and 5 parts per billion. To visualize such a figure, picture 5 drops of water among a billion drops. However, some scientists fear that even those low levels pose risks.

And more study is needed before health officials can say just how dangerous it is to drink small amounts of TCE over a 20- or 30-year period, the amount of time Larry Ford, manager of the South Adams water district, says such pollutants probably have been in the district's water.

Estimates of the cancer risk from ingesting small amounts of toxins are based on short-term studies in which huge doses are fed to laboratory animals. From these studies, researchers estimate the risk to a healthy adult ingesting the

toxins over a lifetime.

At 2.8 parts per billion, TCE is expected to cause one extra cancer case per million people and at 28 parts per billion, one more cancer

case is expected per 100,000 people, according to the EPA. Such figures primarily are used to calculate the degree of danger posed by contaminated air and water.

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EPA investigates cancer-caus

TCE from 1-A

It will be difficult to pinpoint the pollution sources, officials say, because the water district is wedged between the Rocky Mountain Arsenal and Stapleton International Airport on the east, and industrial sites on the west and south. All are suspected sources, according to the EPA, the health department and water district.

No federal standards exist for TCE and many other pollutants found in the South Adams district's water. "None of them that we have in our water supply are violating any regulations," Ford said.

The district serves 30,000 people in Commerce City, Adams City, Irondale and Dupont. Most of the contaminated wells are in Commerce City, south of East 80th Avenue near the arsenal, Sandza said. But water from the wells is distributed throughout the district.

Because the water pollution doesn't violate any regulations, Ford said, the district hasn't notified users of the contamination. However, he said he met with representatives of two local citizens groups last month and discussed the problem with them.

Based on samples taken from 17 of the district's 19 wells and from six private wells in January, shallow "ground water throughout the district south of East 80th Avenue appears to be contaminated," according to an EPA report completed in May.

Deeper bedrock wells are much cleaner than the shallow wells, the report said. But a separate water-district study done in May 1984 revealed traces of dangerous chemicals in some of the deeper wells. The district gets its water from both shallow and deep wells.

One of the district's wells, which the district sampled in May 1984, showed TCE at 56.7 parts per billion and the well then was shut down, Ford said.

At 2.8 parts per billion, TCE is expected to cause one extra cancer case per million people, according to the EPA. Two parts per billion is equivalent to two grains of sand among a billion grains.

Another district well, sampled by the EPA in January, showed TCE at 44 parts per billion. It is used only during June, July and August, when demand is high, Ford said.

A private well that the district sampled in June 1984 showed TCE at 55 parts per billion. "I don't think (the homeowner) was informed of the results,"

chloroform, bromoform, n-nitrosodiphenylamine, 1,1 dichloroethylene and toluene. The EPA recommends that people not ingest any benzene, tetrachloroethylene, 1,1 dichloroethylene and 1,2 dichloroethane or TCE.

According to a 1984 report by the Office of Technology Assessment, the scientific arm of Congress, consuming alcoholic beverages increases the chance that TCE and 1,1,1 trichloroethane, another solvent found in the district's water, will damage the liver.

Most of the district's shallow wells also showed sodium levels exceeding "the National Research Council's recommended level ... for individuals on low sodium diets due to hypertension," the EPA report said.

The pollutants "probably were in the water when the water district was started" in 1952, Ford said. That means residents may have been drinking tainted water for more than 30 years. "We've got to know there's a health problem before we do something about it," he added.

But an epidemiological study — which might correlate the consumption of polluted water with the incidence of disease — isn't likely to be carried out soon.

The Legislature scuttled the health department's environmental epidemiology section last year. It reauthorized the program this year — but didn't give the department any money for it.

To remove the contamination from the district's water supply, expensive carbon filters would have to be used, Ford said.

However, users shouldn't have to pay higher water bills to remove pollution "they didn't put there," said Bobby Major, who lives in Commerce City. Major is head of Adams County Residents Organi-

zation, which is pushing for water.

"I don't know if the district can do anything" to reduce the pollution, she said, "but the industries causing the problem."

Sources suspected of contributing to the pollution include old and active industries along Sand Creek, the Army's Rocky Mountain Arsenal, which is heavily con-

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A private well that the district sampled in June 1984 showed TCE at 55 parts per billion. "I don't think (the homeowner) was informed of the results," Ford said, adding that the well is used only for lawn watering.

TCE also was found at 26 parts per billion in a sample the EPA took from a water district tap in January.

Several states, including Florida, California and New Hampshire, have set limits for TCE at 3 and 5 parts per billion. But Colorado has no limits and no ground-water quality protection program.

"The ball is in the health department's court," because the state is responsible for water quality in Colorado, said Sandza, of the EPA. "If we'd have any advice (for people) it would be just get yourself a small (faucet) water purifier."

The health department has advised the water district to blend its tainted water with water from clean wells. That can dilute but not remove the poisons, said Mary Gearhart, the health department's ground-water specialist.

In addition to TCE, known or suspected cancer-causing substances found in the district's water include benzene, tetrachloroethylene, 1,2 dichloroethane,

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Investigates cancer-causing chemicals

chloroform, bromoform, n-nitrosodiphenylamine, 1,1 dichloroethylene and toluene. The EPA recommends that people not ingest any benzene, tetrachloroethylene, 1,1 dichloroethylene and 1,2 dichloroethane or TCE.

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"I don't know if the water district can do anything" to prevent the pollution, she said. "I think it's the industries causing the problem."

Sources suspected of contaminating the Commerce City wells include old and active industrial sites along Sand Creek, the airport and the Army's Rocky Mountain Arsenal, which is heavily contaminated

from years of nerve gas pesticide production.

"We suspect it's in the Sand Creek area," The area includes two sites scheduled for cleanup under the nationwide program to clean up hazardous waste.

One is the Woodbury Co. site, where pesticides have leached into the ground. Chemicals, including TCE, have been found in the ground

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Chemicals found in Adams water

from years of nerve gas and pesticide production.

"We suspect it's coming from the Sand Creek area," Ford said. The area includes two sites targeted for cleanup under Superfund, the nationwide program to clean up hazardous waste.

One is the Woodbury Chemical Co. site, where pesticide residues have leached into the soil, and chemicals, including TCE, have been found in the ground water.

The other is the Sand Creek industrial site, which includes an old landfill, an old refinery, a closed pesticide plant and old waste ponds where Shell Chemical Co. sent acid wastes from the arsenal.

The airport also is "a very big suspect," Ford said, adding that "solvents were dumped there for

years."

Health department officials said the Colorado attorney general's office has told them not to discuss possible sources because of lawsuits against polluters. Colorado is suing the Army and Shell, which manufactured pesticides at the arsenal.

MICROWAVE OVEN

"Those aboard the Greenpeace ship Aleyka had one all-important objective -- to stop the deadly flow of poison into the waterway that flowed through the densely-populated town. Moments after dropping anchor, they were literally up to their necks in a gushing torrent of toxic waste as they struggled -- successfully -- to wedge plugs into the polluter's discharge pipes."

Dear Supporter:

While the Greenpeace activists who risked their lives to put an end to an irresponsible company's toxic discharge were exceptional individuals, the risky protest was far from unusual for Greenpeace.

For years, Greenpeace has waged hundreds of hard-hitting campaigns to end environmental abuses. We've looked up at barrels of nuclear waste about to crash down on us in our inflatables. We've looked down gun barrels of Soviet soldiers while investigating a Siberian whaling station. We've looked over our shoulders at a harpooner trying vainly to kill the whale we're protecting with our bodies. And we've stared straight into the angry eyes of sealers unable to club the defenseless animals we were shielding from their clubs.

Fourteen years of effective, nonviolent direct action have taught us that we can take on formidable foes against the worst of odds ... and win.

But in one respect, our campaign against the deadly chemicals that are poisoning the very waters we depend upon is different than any of our previous campaigns.

As horrible as it may seem, the slow, painful death of an animal from a harpoon or a spiked club is a relatively quick and painless death when compared to the years of suffering the victims of America's toxic poisoning endure.

Anyone can be both shocked and deeply moved by the horrible cries a trapped dolphin makes as it's speared -- and it takes little effort to imagine the agony a whale suffers as an explosive harpoon rips through its skin. But who could imagine the terrible, slow torture humans suffer when their bodies have been ravaged by deadly toxins?

Greenpeace has battled tirelessly to save many creatures, the world over, from painful and needless deaths at the hands of cruel 19th century weapons. But now we face a far more dangerous threat from a 20th century arsenal -- a threat comprised of

(over, please...)

benzene, PCBs, toluene, EDB, and dioxin. And there are a multitude of other chemicals whose toxicity has not yet affected enough people to attract the attention of the popular press.

The effects of exposure to hazardous chemicals are not often realized until many years later when death and disability strike. It is not a story that can be told between commercials on the evening news. Perhaps if the years of agony the victims of our chemical wastes endured could be condensed to a five-minute film, then the fight against these insidious killers would have already been won.

But this is only the beginning of the battle against deadly poisons whose irresponsible producers -- more concerned with a quick profit than a safe, healthy environment -- choose to dispose of recklessly instead of handling properly.

The fight to end the poisoning of our lakes, oceans, rivers and groundwater is a battle of unprecedented proportions. It is war that, if lost, will have no winners. Who could possibly benefit from turning our water supplies into open sewers; to what nation's advantage is it to turn the oceans into toxic waste dumps?

These statements are not exaggerated fears or environmental hysteria. What I have already told you are just some of the simple, frightening facts that have motivated the men and women of Greenpeace to launch an ambitious campaign for clean water, clean air, and food free from carcinogens.

For some people, the impacts of chemical contamination have been both personal and devastating ... a loved one lost ... a child born with such severe handicaps that the child will never be able to speak to its parents.

For others, the losses have been less severe. There are no more fish to be caught in the lake where you once caught dinner every weekend as a child. You're careful to drink only bottled water because your city's water treatment plant doesn't have the technology to filter thousands of industrial poisons from the water it draws from the nearby river.

For many people, however, the effects of chemical poisoning are not at all obvious -- there is a sharp rise in the cancer rates due to "unrelated environmental factors." Or a community's hospital records reveal an "unexplained" increase in birth defects.

Take a minute to think about recent headlines, and you'll understand the urgency with which we at Greenpeace view the need to protect our environment -- and us -- from these modern-day killers.

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Think about what you've read in your newspapers:

... a timber company scientist scoffs at women alarmed that an increase in miscarriages has been linked to his company's chemicals. She tells them that "babies are replaceable."

Think about what you've seen on your television:

... an entire community of people driven from their homes in Times Beach, Missouri because of dioxin contamination.

Think about what you've heard on your radio:

... tons of food contaminated with cancer-causing chemicals are yanked from grocery store shelves across the country.

Then, think of what industry is doing about the problem. The chemical corporations -- which claim effective pollution controls are "too expensive" -- paid a negative 17.7 percent tax on its earned income in 1982, which shows the amount of tax money that the chemical industry received in refunds.

And think again of what the government is doing about the problem. The Environmental Protection Agency is not adequately enforcing existing legislation let alone enacting needed changes in the Clean Water Act, "Superfund" and the Resource Conservation and Recovery Act. Other promising programs are on the drawing boards but not on the books.

And now think about what Greenpeace is doing.

If you know the incredible odds against us -- the myopic interests who value a quick profit more than clean water -- then you also know our record of success against all odds.

The problem of toxic waste is formidable, but not insoluble. Industrial poisons can be recycled, reduced, recovered, reused and frequently eliminated altogether -- or better yet -- not produced at all.

Lawmakers can levy -- and enforce -- stiff tax penalties against those who choose to jeopardize the public's health. The same short-sighted people who feel it's "worthwhile" to pollute can -- and will -- respond to economic incentives to act responsibly

But we cannot simply trust that such a day will come. Again and again we must prove our deep resolve to oppose those who would pollute the earth. Over and over we must take direct action to stop the poisoning of our environment.

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By conducting bold protests that can't be ignored, we make it impossible for polluters to continue to operate in obscurity.

We have the ability to take a few dollars and amplify our concerns into a powerful voice that mobilizes public opinion, affects the outlook of those in power, and allows us to prevail where the odds appear overwhelmingly against us.

And, aware as we are that all life on earth is linked by a fragile, tenuous and reverberant web, the criminal dumping of toxic wastes is nothing less than a deliberate assault on all living creatures. It must be stopped.

And with your generous help, it will be. For it is your help that will make the difference. Because, without your help, without your understanding, without your outrage, without your concern, there never will be -- and never can be -- any hope at all.

So, please send what you can right now -- whatever you can afford -- whether it be \$15, \$25, \$50, or hopefully more. While the battle against toxic polluters is expensive, it is a battle that we cannot afford not to fight. With your timely and generous support, we can be confident of continued successes in a struggle we dare not lose.

With deepest concern.

Douglas Falkner

Douglas Falkner
Administrative Director
Greenpeace International

DF:lgt

P.S. Only Greenpeace can fight the toxic waste dumpers where they commit some of their worst crimes: on the high seas where no witnesses are present. And only you -- by sending in a contribution now -- can make sure Greenpeace carries on the fight. Please help. There's just no time to lose.