PR WATCH

Public Interest Reporting on the PR/Public Affairs Industry

Volume 2, Number 3 Third Quarter 1995

Let Them Eat Sludge

by John C. Stauber and Sheldon Rampton

If the "Water Environment Federation" has its way, you'll be routinely eating fruits and vegetables fertilized with sewage sludge containing heavy metals, dangerous viruses, dioxins, PCBs, pesticides and hundreds of other toxic chemicals.

The WEF, whose pleasant-sounding name conceals its true identity as the main lobby association for U.S. sewage treatment plants, is working closely with the Environmental Protection Agency to persuade farmers and food processors that sewage sludge is a "beneficial fertilizer."

In the United States, sewage plants produce over 10 million tons of sludge per year, creating a massive waste disposal problem. Spreading sludge on farm fields happens to be the cheapest disposal method available, and WEF and the EPA claim that it is also the most environmentally sound method—that it "recycles" sewage waste by converting it into a valuable resource.

continued on next page

Flack Attack

"There's no doubt that people have been harmed by sewage sludge, but I don't know of any cases where it's been *proved* beyond a doubt," says Stanford Tackett, a chemist and lead expert.

Tackett's seemingly contradictory statement captures the scientific loophole that PR practitioners use routinely to cover up health hazards. Scientific "proof" is something achieved under laboratory conditions with strict control of all variables. In the real world, those controlled laboratory conditions do not exist.

As an example, Tackett cites a case in Oklahoma where a farmer fed hay grown on sludge-fertilized land to his miniature horses. After nine horses died and 113 others developed liver problems, the farmer took his case to veterinarians at the University of Oklahoma, who tested the hay and found high levels of heavy metals from sludge. Heavy metals are known to cause problems similar to those the horses had experienced. They fed the hay to a healthy horse, and it promptly developed the same problems as the other horses.

"Even in that case, the sludge promoters were able to claim in court that there's no scientific proof that sludge *caused* the deaths of the horses," Tackett said. "In a strict scientific sense, they're correct."

In the real world, however, a rational person can reasonably conclude that sludge was the most likely cause of death, and a reasonable person would want to avoid eating food raised on sludge-fertilized land.

The PR campaign surrounding sludge is aimed at keeping people *unaware* that sludge is being used as fertilizer so they cannot make informed decisions about its risks. Milorganite fertilizer, for example, is sold in all 50 states in bags describing it as a natural "organic fertilizer." Small print at the bottom of the bag states that it is "produced only by Milorganite Division–MMSD." Outside Milwaukee, very few people know that "MMSD" stands for "Milwaukee Metropolitan Sewerage District," and that they are spreading sewage sludge on their lawns and gardens.

Here is the shocking, untold story of how, with the EPA's blessing, sewage sludge is being foisted upon an unsuspecting public, making it difficult to avoid its risks and dangers, and placing the burden of proof on sludge victims rather than the toxic waste industry.

As part of this effort to sell sludge to the public, WEF has even coined a new name for the stuff. "It's not toxic, and we're launching a campaign to get people to stop calling it sludge. We call it 'biosolids,' " says WEF Director of Information Nancy Blatt.

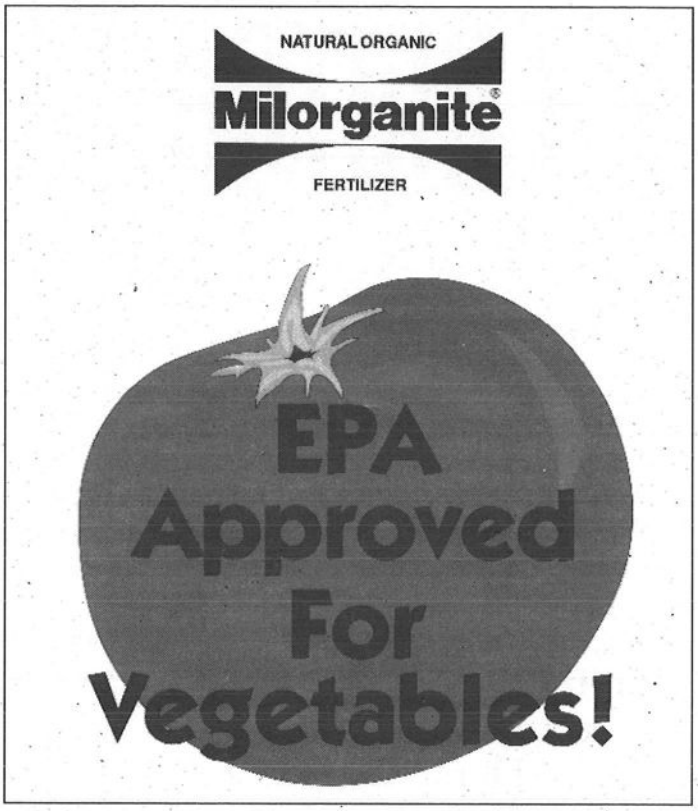
One measure of the success of the WEF's PR campaign is that major food companies and associations are reversing their long-standing opposition to sewage sludge. Until recently, the National Food Processors Association—the main trade/lobby group representing the food industry, with members such as Del Monte, Heinz and Nestlé—strongly opposed accepting and selling sludge-grown fruits and vegetables.

In 1992 the tomato and ketchup conglomerate Heinz responded to a consumer inquiry by writing, "Heinz Company feels the risk of utilizing municipal sludge, which is known to be high in heavy metals such as cadmium and lead, is not a health risk which we need to take. . . . It should be noted that once the lead levels are present in the soil they stay there for an indefinite period of time. . . . We have at times dropped suppliers who have used the municipal sludge on their crop land."

In 1995, however, a Heinz representative said they were reconsidering their policy. Other companies are following suit. Chris Meyers, a PR representative for the huge Del Monte company, explained that his company's "long-standing position . . . to avoid using raw agricultural products grown on soils treated with municipal sludge" was likely to change. "The EPA has asked the National Academy of Sciences (NAS) to conduct an extensive study of the outstanding safety issues. Del Monte is an active supporter of this study, which we hope will facilitate sludge use in the future." The NAS report is due out by the end of 1995.

Once "biosolids" are accepted as crop fertilizer, the powerful National Food Processors Association lobby will "strongly oppose" any labeling of food grown on sludge land. According to NFPA representative Rick Jarman, consumers don't need to know whether their food has been grown in sludge.

Currently, "certified organic" farmers are prohibited from using sludge on their crops, but the sludge industry is pushing for acceptance by organic farming organizations, and this will be a battleground for industry PR in the future. The amount of farm acreage dedicated to organic farming is currently very small. However, said Brian Baker of California Certified Organic Farmers, "imagine what great PR it would be for the sewage sludge promoters to say that sludge is so clean it can even be certified organic—what a way to 'greenwash' sewage sludge!"



Thanks to loosened "Part 503" regulations promulgated by the Environmental Protection Agency, Milwaukee is now advertising that its "natural organic" sewage sludge is safe for home food gardening.

SLUDGE MAKEOVER

WEF's "National Biosolids Public Acceptance Campaign" is the brainchild of Powell Tate, a blue-chip Washington-based PR/lobby firm that specializes in public relations around controversial high-tech, safety and health issues, with clients from the tobacco, pharmaceutical, electronics and airlines industries. Jody Powell was President Jimmy Carter's press secretary and confidant. Sheila Tate similarly served Vice-President George Bush and First Lady Nancy Reagan. Tate is also the chairperson of the Corporation for Public Broadcasting.

PR Watch has requested that the WEF and EPA provide copies of its strategy documents, memos, opinion surveys and other materials from Powell Tate. Legally we are entitled to these documents, since both agencies receive taxpayer funding. Their refusal to voluntarily produce them forced us to file a Freedom of Information Act request with the federal government. EPA is currently stalling, and we are now examining legal action to force public disclosure of the sludge PR documents.

Our investigation into the PR campaign for "beneficial use" of sewage sludge revealed a murky tangle of corporate and government bureaucracies, conflicts of interest, and a coverup of massive hazards to the environment and human health. The trail began with the

WEF and led finally to Hugh Kaufman, the legendary whistleblower at the hazardous site control division of the Environmental Protection Agency.

In the 1980s, Kaufman refused to remain silent about the collaboration between EPA officials and leaders of the industries they were supposed to regulate. His courageous testimony exposed the agency's failure to deal with mounting chemical wastes and brought down Anne Burford, President Reagan's EPA administrator.

Today, Kaufman is attempting to raise a similar alarm about the so-called "beneficial use" of sewage sludge, a boondoggle he refers to as "sludge-gate . . . the mother lode of toxic waste."

"Beneficial use" is the industry euphemism for the practice of spreading sludge on farm fields. Even before the current push, sludge has been applied to soil for decades. Milwaukee sewage has been dried and sold nationally for almost 70 years as "Milorganite," a lawn and garden fertilizer. In recent years, other cities have followed Milwaukee's example, offering varieties such as "Nu-Earth" from Chicago, "Nitrohumus" from Los Angeles, and "Hou-actinite" from Houston.

Until recently, Milorganite and other commercially-marketed sludge products carried labels warning that they should not be applied on food-producing soil. But most consumers and journalists are unaware that tens of thousands of acres, from Midwest dairy land to Florida citrus groves and California fruit orchards, are already routinely "fertilized" with byproducts of industrial and human sewage. In theory, this approach harkens back to the time-honored natural system of composting. Of course, the organic farmers of previous centuries didn't have to worry that *their* "night soil" contained a synergistic soup of dioxins, asbestos, DDT and lead that could contaminate themselves, their groundwater, and their food.

"I am appalled at what I would term the 'total disregard for human health' and the fact that the Environmental Protection Agency is actively promoting and is, in fact, lulling communities throughout the United States into initiating programs for the composting of sewage sludge," said Melvin Kramer, an infectious disease epidemiologist who has been researching the issue since the late 1970s. He says the EPA's plan for sludge disposal poses "a significant health hazard to the population in general, but especially to the elderly, children, and the infirm, both in terms of nuisances as exemplified by excessive putrid odors and minor allergic reactions . . . to life-threatening diseases."

Some environmental activists with Greenpeace and the Citizens Clearinghouse on Hazardous Waste have warned about the dangers of sludge, but some groups—notably the Environmental Defense Fund and the Natural Resources Defense Council—have bought into the argument that sludge farming is the least offensive way to deal with the problem of waste disposal. Sarah Clark, formerly of the EDF, claims that sludge farming "is the best means of returning to the soil nutrients and organic matter that were originally removed. It is recycling a resource just as recycling newspapers or bottles is. If the right safeguards are taken, it can be environmentally protective and even beneficial."

PR WATCH

Published Quarterly
Address Correspondence to:
Center for Media & Democracy
3318 Gregory Street, Madison, WI 53711
Phone: 608-233-3346; Fax: 608-238-2236
Internet: 74250.735@compuserve.com

Subscription Rates:

- Businesses: $200/year
- Non-Profit Groups: $60/year
- Journalists and Individuals: $35/year

Also available from PR Watch:

- "Counter-PR" Research
- Speakers & Seminars
- Newsletter and Brochure Production
- Writing, Editing and Graphic Design

Printed on chlorine-free, 100% recycled paper.

Unfortunately, "the right safeguards" are *not* being taken. Joseph Zinobile, a risk management consultant with Pennsylvania's Waste Risk Education Fund, agrees that "human waste residue *can be* applied to land in a safe manner." The problem, he says, is that "*it is often not done safely at this time.* The primary reason that it is not always done safely at this time is a nearly complete subjugation of safety concerns by the US EPA in favor of their concern over solving their 'disposal dilemma.' "

Dr. Stanford Tackett, a chemist and expert on lead contamination, became alarmed about sludge on the basis of its lead content alone. "The use of sewage sludge as a fertilizer poses a more significant lead threat to the land than did the use of leaded gasoline," he says. "All sewage sludges contain elevated concentrations of lead due to the nature of the treatment process. . . . Lead is a highly toxic and cumulative poison that can cause severe mental retardation or death. It interferes with the blood-forming process, vitamin D metabolism, kidney function, and the neurological process. From the standpoint of lead alone, sludge is 'safe' only if you are willing to accept a lowered IQ for the young children living in the sludge area. And what about the other toxins?"

Tackett is appalled "that the government would take the citizens' money and use it in such an odious way. The land spreading program for sewage sludge is a scam of enormous proportions, driven mainly by money," he charges. "In truth, only one to three percent of the sludge is useful to plants. The other 97 to 99 percent is contaminated waste that should not be spread where people live. . . . Land spreading of sewage sludge is not a true 'disposal' method, but rather serves only to transfer the pollutants in the sludge from the treatment plant to the soil, air and ground water of the disposal site."

ONE HAND WASHES THE OTHER

Tackett also condemns the "selective science" and "manipulation of research money" used to rationalize sludge farming. "Millions of dollars have been made available through EPA and other federal, state and local agencies, for 'beneficial use' research. Toxicologists, public health scientists and medical researchers have not had a similar money pot available to study the potential dangers and adverse health effects of sewage sludge. . . . The scientists selected by the EPA to serve on sludge advisory committees are the 'beneficial use' researchers, and the only research reports they deem acceptable for the purpose of adopting new sludge spreading regulations are from the 'beneficial use' studies. . . . The claims now made for 'sludge safety' sound eerily like the earlier claims that 'DDT is perfectly safe' and 'asbestos is a miracle fiber that poses no danger at all."

In fact, the researchers, advocates, regulators and practitioners of sludge farming are a closely interwoven group. Dr. Alan Rubin, for example, served as chief of the EPA's sludge management branch where he oversaw the development of new regulations for land farming of sludge fertilizer. In 1994 the EPA loaned Rubin to the Water Environment Federation, while continuing to pay half of his salary. Now Rubin the regulator is a full time cheerleader for "biosolids."

Dr. Terry Logan, a professor of soil chemistry at Ohio State University, is another sludge advocate who has conflicting roles and interests. He co-chairs the US EPA Peer Review Committee, a group described by the EPA as "the best scientific talent and data assembled" to help develop recent federal regulations that eased restrictions on sludge farming. Logan also receives $2,400 per month as a paid consultant and board member of the N-Viro International Corporation, which has developed a patented process for converting sludge into fertilizer by mixing it with dust from concrete kilns and heat-drying it to kill germs. At the recommendation of Logan's committee, the EPA promulgated a modification of its "Part 503" regulations to increase the levels of allowable heavy metals in sludge fertilizer. At the same time that Logan was involved in developing the new regulations, he held stock options in N-Viro whose value could have dropped substantially if he had recommended stricter requirements.

Despite its many customers, N-Viro is in shaky financial condition. Since 1993, the value of its stock has plummeted from $9.50 to $1.50 a share. One of its major problems has been the slow rate of acceptance of land farming of sludge. The company is banking on sludge regulator/promoter Alan Rubin to help overcome political and PR obstacles so the company and industry can flourish. In 1994, Dr. Logan was named "man of the year" by the EPA, and N-Viro, along with the Compost Council and the Rodale Institute, received a $300,000 grant from the US Congress to help promote its product.

In 1992, former EPA official William Sanjour testified before the Georgia State Senate on the "close working relationships formed with government officials who are lured by the huge profits made by the waste management industry. . . . The power of this industry to influence government actions is further enhanced by the ease with which government regulatory officials are hired by the industry. Over thirty state and federal officials have gone over to the waste management industry in the southeast region. . . . This practice extends even to the highest levels of government. William Ruck-

elshaus, a former Administrator of EPA and a close advisor to President Bush, is CEO of the second largest waste management company in America. . . . With this kind of influence and power, trying to have a meaningful hazardous waste reduction program . . . is, frankly, like trying to have a meaningful egg laying program after you've let the fox into the chicken coop."

VICTIMLESS GRIME?

Assessing the health threat from the human disease pathogens inhabiting sewage sludge defies the capabilities of current science. In 1993, a team of researchers at the University of Arizona published a study which found that "significant numbers" of dangerous human disease organisms infect *even treated sewage sludge*. "Thus, no assessment of the risks associated with the land application of sewage sludge can ever be considered to be complete when dealing with microorganisms."

The viruses, bacteria, protozoa, fungi and intestinal worms present in sewage and sludge is mindboggling. Many of the pathogens cause diseases that sicken, cripple and kill humans including salmonella, shigella, campylobacter, e-coli, enteroviruses (which cause paralysis, meningitis, fever, respiratory illness, diarrhea, encephalitis), giardia, cryptosporidium, roundworm, hookworm, and tapeworm. Sludge pathogens can move through many environmental pathways —direct contact with sludge, evaporation and inhalation, contaminated groundwater, contamination of rodents burrowing in sludge, and uptake through the roots of crops.

In Islip, New York, sludge was the evident cause of the disease that killed 25-year-old Harry Dobin, who ran a coffee truck at a Long Island Railroad station 1000 feet away from a sludge composting site. In July 1991 Dobin began suffering health problems. Doctors treated him unsuccessfully for asthma, arthritis, Lyme disease, kidney disorder and bronchitis. Finally in January 1992 when he could no longer breathe, they performed a lung biopsy and discovered *Aspergillus fumigatus*, a common byproduct of sludge composting. By the time the disease was correctly diagnosed, it was unstoppable, spreading to his spine, his legs, and finally his heart, leading to his death on September 23, 1992. Other residents of Islip complained of chronic coughing, nausea and other reactions. A study by the state Department of Health found that neighborhoods downwind of the composting plant had four times the average background level of *Aspergillus*. State officials concluded that "the study did not find that the higher concentration of mold spores increased health problems . . . [but] such a connection might, in fact, be present . . . further study was needed to come to a definitive conclusion."

Outside Sparta, Missouri, a tiny rural town whose sewage plant began operations in the late 1980s, dairy farmer Ed Rollers began having problems with his cows in 1990. They were falling sick and dying, and no veterinarian or university scientists could tell him why. The death and disease continued until late 1993 when the farm declared bankruptcy. Someone suggested to Rollers that his cows could be victims of sludge which was dumped on a nearby field in 1989-1991, and suggested he read journalist Ed Haag's articles on the topic which had recently appeared in two farm magazines.

Eventually Rollers initiated scientific soil tests. "We found lots of heavy metal contaminants. The field where the sludge was dumped ran into our fields." They tested a dead cow and found "lead, cadmium, fluoride in the liver, kidneys, bones and teeth." Rollers hired an attorney. His situation is especially difficult because the landowner who accepted the sludge is a public official in Sparta, and sits on the board of Rollers' bank. As of 1995, the Rollers case was still pending, and Ed's father was experiencing health problems suspected to result from his exposure to sludge.

"I can't believe what's happening," Rollers said. "There are very few places to turn. . . . I don't want a government agency to cover this up."

In Lynden, Washington, dairy farmers Linda and Raymond Zander began to lose cows a year after sludge was spread on an adjoining farm. "We noticed . . . lameness and other malfunctions," said Linda Zander. Tests found heavy metals in soils at the sludge disposal site and in water from two neighborhood wells that serve several families. Raymond Zander was diagnosed with nickel poisoning, and several family members showed signs of neurological damage which they believe is linked to heavy metal poisoning including zinc, copper, lead and manganese. Sixteen neighboring families have experienced health problems ranging from flu symptoms to cancer. Since then Zander says she has heard similar stories of sickness and death over 100 farmers near sludge sites throughout the United States.

Sludge is often marketed to farmers as "free fertilizer," but environmental consultant Susan Cook, who tested the Zanders' water supply, warned that "farmers may be happy initially but the problems don't show up overnight. It was nearly two years before Ray and Linda realized what was happening."

In fact, says toxicology professor Karl Schurr of the University of Minnesota, "some of the same chemicals found in sewage sludge were also employed by Cesare Borgia and his sister Lucrezia Borgia in Italy during the 1400s to very slowly poison their opponents." ■

A Brief History of Slime

In traditional, agricultural societies, human waste was prized as a prime ingredient in what the Chinese called "night soil"—artfully composted, high-grade fertilizer. Things changed with the industrial revolution, which brought people together in cities where composting and recycling were no longer practical.

At first, open gutters were dug to carry sewage from city streets into nearby bodies of water. When populations were small and water supplies seemed unlimited, the wisdom of using fresh water as a vehicle and receptacle for human waste was not questioned. By the 1920s and 1930s, large cities were piping large quantities of untreated sewage into rivers and oceans, creating serious pollution problems. Septic systems in thousands of small and medium-sized communities were failing due to overloading. Thousands of industries were also producing chemical wastes and needed to dispose of them.

The environmentally sound approach would have been to develop separate treatment systems for human and industrial waste. Biological wastes should have been recycled through a system that returned their nutrients to the soil, and businesses should have been required to separately treat their chemical wastes on-site so that they could be contained and re-used within the industries from which they came. At the time, however, it seemed easier and cheaper to simply dump everything into a single common sewer system. For businesses, the system provided tax-based aid to help them dispose of their toxic

Secret Ingredients

The *HarperCollins Dictionary of Environmental Science* defines sludge as a "viscous, semisolid mixture of bacteria- and virus-laden organic matter, toxic metals, synthetic organic chemicals, and settled solids removed from domestic and industrial waste water at a sewage treatment plant." Over 60,000 toxic substances and chemical compounds can be found in sewage sludge, and scientists are developing 700 to 1,000 new chemicals per year. Stephen Lester of the Citizens Clearinghouse for Hazardous Wastes has compiled information from researchers at Cornell University and the American Society of Civil Engineers showing that sludge typically contains the following toxins:

- *Polychlorinated Biphenyls (PCBs);*
- *Chlorinated pesticides*—DDT, dieldrin, aldrin, endrin, chlordane, heptachlor, lindane, mirex, kepone, 2,4,5-T, 2,4-D;
- *Chlorinated compounds such as dioxins;*
- *Polynuclear aromatic hydrocarbons;*
- *Heavy metals*—arsenic, cadmium, chromium, lead, mercury;
- *Bacteria, viruses, protozoa, parasitic worms, fungi;*
- *Miscellaneous*—asbestos, petroleum products, industrial solvents.

In addition, a 1994 investigation by by the US General Accounting Office found that "the full extent of the radioactive contamination of sewage sludge, ash and related by-products nationwide is unknown." Most of the radioactive material is flushed down the drain by hospitals, businesses and decontamination laundries, a practice which has contaminated at least nine sewage treatment plants in the past decade.

In 1977, EPA Administrator Douglas Costle estimated that by 1990 treatment plants would be generating 10 million tons of sludge per year, a thought that "gives us all a massive environmental headache." Today there are about 15,000 publicly-owned wastewater treatment works in the United States, discharging approximately 26 billion gallons per day of treated wastewater into lakes, streams and waterways. Before treatment, this wastewater contains over a million pounds of hazardous components. Sewage plants use heat, chemicals and bacterial treatments to detoxify 42 percent of these components through biodegradation. Another 25 percent escapes into the atmosphere, and 19 percent is discharged into lakes and streams. The remaining 14 percent—approximately 28 million pounds per year—winds up in sewage sludge.

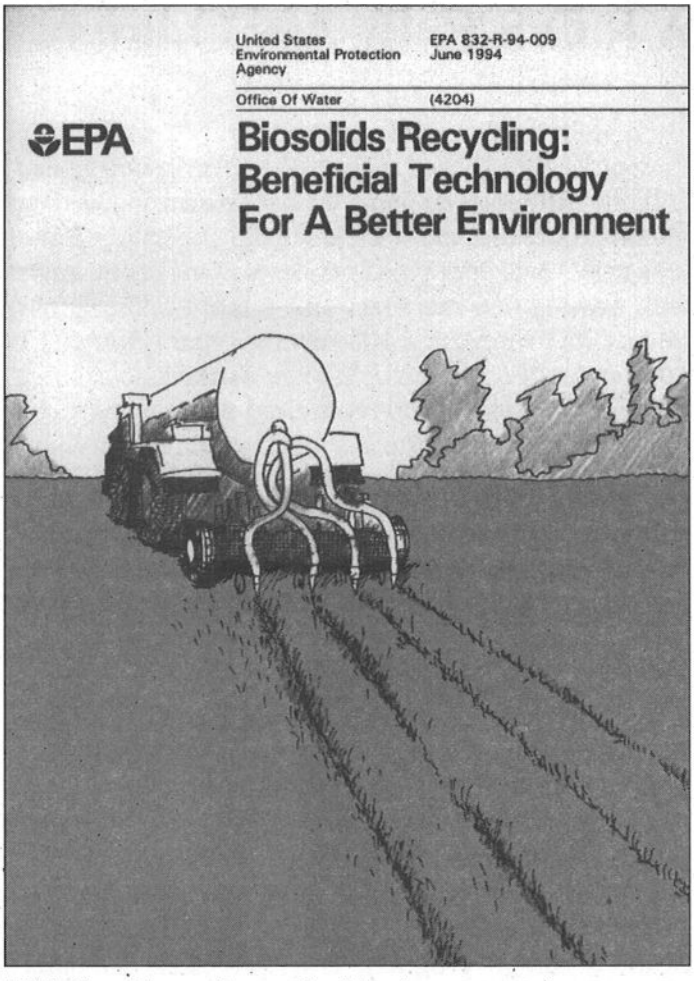
Once created, this sludge must be disposed of somehow. Available methods include: incineration (which pollutes the air), dumping into landfills (which is expensive, and often leaches contaminants into groundwater), and ocean dumping (where it has created vast underwater dead seas). A fourth method —gasification, using sludge to generate methanol or energy—is favored by EPA's Hugh Kaufman as the "most environmentally sound approach, but also the most expensive." A fifth approach —using sludge as plant fertilizer—was considered hazardous to health and the environment until the 1970s, but it has the advantage of being inexpensive. As budget concerns mounted in the late 1970s, the EPA began to pressure sewage plants to adopt the cheapest method available—spreading sludge on farm fields.

byproducts. For people, indoor plumbing that magically "carried everything away" was a luxury that marked their escape from frontier hardship and their entrance into modernity. The system helped limit the spread of communicable diseases, and for many it symbolized the difference between primitive crudity and the civilized benefits of technological society.

The problem with this system, however, is that it collects, mixes, and concentrates a wide range of noxious and toxic materials which are then very difficult, if not impossible, to separate and detoxify. According to businesswoman Abby Rockefeller, an advocate of waste treatment reform, "conventional wastewater treatment systems . . . are not designed to produce usable end-products. Because this is so, it must be said that failure to solve the overall problem of pollution caused by the waste materials received by these systems *is a function of their design.*"

"Today," observe environmental writers Pat Costner and Joe Thornton, "waterless treatment systems—on-site composting and drying toilets that process human wastes directly into a safe, useful soil additive—are available. These dry systems are more economical than water-flushed toilets and their attendant collection and treatment systems. However, water-flushed toilets are so entrenched in the cultural infrastructure that the transition to alternative waste systems has been blocked. Instead, billions of dollars are spent on perfecting the mistake of waterborne waste systems: wastes are first diluted in water and then, at great expense, partially removed. The products of this treatment are sludge—which requires even further treatment before disposal—and treated effluent, which carries the remaining pollutants into receiving waters."

To cope with the mounting problem of water pollution, the United States launched what has become the largest construction grants program in US history, linking millions of homes and tens of thousands of businesses into central treatment facilities. As the 1970s dawned, front-page headlines across America told stories of polluted drinking water and quarantined beachfronts. Environmentalists pressured Congress to pass the Clean Water Act of 1972, which according to US Senator Max Baucus, "put us on the course to fishable and swimmable rivers at a time when one river was known as a fire hazard and others hadn't seen fish in a generation." The Clean Water Act required communities to make sure that by 1977 their sewage plants could remove at least 85 percent of the pollutants passing through them, and allocated funding to pay for the additional treatment and filtering technologies needed to achieve this goal. By



This brochure from the Environmental Protection Agency promotes the idea that sewage sludge is a "natural fertilizer," a "valuable recyclable resource."

1976, the federal government was spending $50 billion per year to help cities achieve water purity goals.

In the 1980s, however, politicians responded to pressure for reduced federal spending by cutting funds for water treatment, and by the 1990s the money had been virtually eliminated. In the meantime, the push for clean water had created another problem—tons of pollution-laden sewage sludge generated as a byproduct of the treatment process.

According to Abby Rockefeller, the hundreds of billions of dollars spent purifying water through central sewage processing plants has largely been wasted. "Leaving aside the immense costs of this option, both in energy and in money, there is the critical though inadequately recognized problem of the sludge," Rockefeller states. "The more advanced the treatment of the sewage (the more successful the separation), the more sludge will be produced, and the worse—the more unusable and dangerous—it will be. That is, the 'better' the treatment, the greater the range of incompatible materials that will have been concentrated in this highly entropic gray jelly." ■

A R.O.S.E. By Any Other Name . . .

To educate the public at large about the benefits of sludge, the EPA turned to the "Water Environment Federation." Although its name evokes images of cascading mountain streams, the WEF is actually the sewage industry's main trade, lobby and public relations organization, with over 41,000 members and a multi-million-dollar budget that supports a 100-member staff. Founded in 1928 as the "Federation of Sewage Works Associations," the organization in 1950 recognized the growing significance of industrial waste in sludge by changing its name to the "Federation of Sewage and Industrial Wastes Associations." In 1960, it changed its name again to the cleaner-sounding "Water Pollution Control Federation."

In 1977, Federation director Robert Canham criticized the EPA's enthusiasm for land application of sludge, which he feared could introduce viruses into the food chain. "The results can be disastrous," he warned. By the 1990s, however, Federation members were running out of other places to put the stuff. The Federation became an eager supporter of land farming, and even organized a contest among its members to coin a nicer-sounding name for sludge.

The proposal to create a "Name Change Task Force" originated with Peter Machno, manager of Seattle's sludge program, after protesters mobilized against his plan to spread sludge on local tree farms. "If I knocked on your door and said I've got this beneficial product called sludge, what are you going to say?" he asked. At Machno's suggestion, the Federation newsletter published a request for alternative names. Members sent in over 250 suggestions, including "all growth," "purenutri," "biolife," "bioslurp," "black gold," "geoslime," "sca-doo," "the end product," "humanure," "hu-doo," "organic residuals," "bioresidue," "urban biomass," "powergro," "organite," "recyclite," "nutri-cake" and "R.O.S.E.," short for "recycling of solids environmentally." In June of 1991, the Name Change Task Force finally settled on "biosolids," which it defined as the "nutrient-rich, organic byproduct of the nation's wastewater treatment process."

The new name drew sarcastic comment from the *Doublespeak Quarterly Review,* edited by Rutgers University professor William Lutz. "Does it still stink?" Lutz asked. He predicted that the name "probably won't move into general usage. It's obviously coming from an engineering mentality. It does have one great virtue, though. You think of 'biosolids' and your mind goes blank."

According to Machno, the name change was not intended to "cover something up or hide something from the public. . . . We're trying to come up with a term . . . that can communicate to the public the value of this product that we spend an awful lot of money on turning into a product that we use in a beneficial way."

Sludge critic James Bynum saw a more sinister motive behind the name change. In 1992 the EPA modified its "Part 503" technical standards which regulate sludge application on farmlands. The new regulations used the term "biosolids" for the first time, and sludge which was previously designated as hazardous waste was reclassified as "Class A" fertilizer. "The beneficial sludge use policy simply changed the name from sludge to fertilizer, and the regulation changed the character of sludge from polluted to clean so it could be recycled with a minimum of public resistance," Bynum wrote. "Sludge that was too contaminated to be placed in a strictly controlled sanitary landfill was promoted as a safe fertilizer and dumped on farmland without anyone having any responsibility. . . . There is a real concern for everyone, when a bureaucrat can write a regulation which circumvents the liability provisions of the major Congressional mandated environmental laws, by simply changing the name of a regulated material."

"It does have one great virtue. You think of 'biosolids' and your mind goes blank."

William Lutz, editor of the *Doublespeak Quarterly Review*

A few months after the debut of "biosolids," the Water Pollution Control Federation dropped the words "pollution control" from its own name and replaced them with "environment." At the group's 64th annual conference, WEF President Roger Dolan explained the reasoning behind the latest name change: "We don't control pollution anymore; we eliminate it. To the outside world, our people came to be seen as pollution people. In today's world, the word 'control' just isn't good enough." In fact, this claim was largely rhetorical. "Virtual elimination has not been achieved for one single persistent toxic," said E. Davie Fulton, a Canadian official involved in sagging efforts to clean up the Great Lakes.

In 1992, the Water Environment Federation, describing itself as a "not-for-profit technical and educational organization" whose "mission is to preserve and enhance the global water environment," received a $300,000 grant from the EPA to "educate the public" about the "beneficial uses" of sludge. "The campaign will tie in with the Federation's ongoing efforts to promote use of the term 'biosolids,' " reported the Federation's December 1992 newsletter. ■

Bypassing Barriers With "Active" and "Passive" Public Relations

The EPA's PR strategy for sludge was first outlined in a 40-page report published in 1981 with a classic bureaucratic title: "Institutional Constraints and Public Acceptance Barriers to Utilization of Municipal Wastewater and Sludge for Land Reclamation and Biomass Production." It warns that sludge farming projects may be blocked by small local groups who "feel their interests threatened."

To counter this opposition, the EPA advises project advocates to choose a strategy of either "aggressive" or "passive" public relations. "Aggressive public relations" uses "glossy brochures describing the project; open public meetings; presentations to specific interest groups; presentation of films about similar projects; local media coverage; technical education campaigns for the public and in schools; establishment of a hotline for quick response questions; and presentation of material stressing community benefits from the project." This approach, however, entails some risk: "A highly visible public relations campaign . . . would in itself alarm and harden opinion against the project."

In some communities, therefore, the EPA recommends "a passive public relations campaign" to introduce sludge farming. A "passive" campaign makes "little effort to reach out to particular segments or constituents of the public. Rather, information about the project [is] made available for individuals and groups which made the effort to obtain it." This secretive approach works best in small, rural communities "where the application site is relatively isolated."

Kelly Sarber, a PR specialist in sludge crisis management, offered her advice to other sludge marketers in a 1994 article titled "Campaign Tactics: How to Strategize for Successful Project Development." The article warns that "public opposition has taken its toll" on the sludge industry, which is experiencing "new, unprecedented levels of interest, discomfort and complaints from the public." To counter these stirrings of community self-determination, Sarber uses tactics that she attributes to sludge opponents, such as "creating photo opportunities, using a small number of vocal people to make it appear like a majority, and undermining messages through counter messages. . . . Countering the opposition without letting them determine the approval process is the most important goal of a good campaign manager."

To control the local media's coverage of the sludge issue, Sarber recommends "a pre-emptive strike" to "get positive messages out about the project before the counter-messages start." She advises sludge companies to identify and develop "several advocates or opinion leaders" who can persuade other community members. They should be careful, however, to avoid seeking early public support from local politicians, because "a local community can be very unforgiving of a political leader believed to have come to some type of conclusion about what is best for the rest of the community before anyone else has heard about the project. . . . A better positioning of the politician is to provide education . . . while promoting the importance of the community having 'an open mind' about the project."

Sarber is especially proud of her PR work in 1991–1992 for Enviro-Gro Technologies, a sludge hauler now operating under the name Wheelebrator. Sarber quietly approached business leaders and politicians in the rural town of Holly, Colorado (population 1,400), which Enviro-Gro had targeted as a dumping-site for New York City sludge. When the proper groundwork had been laid, the pro-sludge campaign struck like a blitzkrieg, quickly deploying "third-party" scientific advocates to assure local citizens of the safety of sludge.

Sarber bragged about stealing the media spotlight at a public meeting organized by opponents of sludge farming: "[Pro-sludge] advocates were placed directly on stage and demanded participation in the forum, which was granted. In addition, local advocates promoted the project through general grandstanding activities in the audience. . . . By targeting the press during the event, the spin of the story changed from an opposition meeting to one which showed that several farmers wanted to find out how they could get more biosolids. Rather than allowing the opposition to have a press 'success' in blasting the project, the media stories show support, with only a few dissenters. When Governor Romer of Colorado came out to throw a shovel full of New York City biosolids on a field, it was apparent that the initial siting of the project had been successful."

FLUSH WITH VICTORY

Kelly Sarber has fought on the front lines of several other sludge campaigns involving sludge disposal for New York City. In addition to Enviro-Gro, her employers have included the New York Organic Fertilizer Company and Merco Joint Venture, the major players in the Big Apple's billion-dollar sludge disposal game. The city has signed contracts totalling $634 million with Merco and New York Organic, in exchange for which the two companies have committed to haul away over a thousand tons per day of city sewage sludge.

New York has an especially messy history of waste disposal problems. In addition to sewage, the city used to dump its garbage into the ocean, and became noto-

rious for instances of garbage washing ashore on nearby beaches. New York's practice of dumping sludge into the ocean first came under fire from the EPA in 1981, prompting the city to file a lawsuit arguing that ocean dumping was environmentally preferable to land-based alternatives. In the 1980s, however, the EPA found that New York's ocean dumping sites had suffered heavy degradation, including bacterial contamination of shellfish, elevated levels of toxic metals, and accumulations of metals and toxic chemicals in fish.In 1988, Congress passed the Ocean Dumping Reform Act, requiring a complete end to ocean dumping by June 1991 and imposing fines of up to $500,000 per day if New York failed to comply.

As the city scrambled to meet the deadline, Merco and New York Organic used both "aggressive" and "passive" PR to persuade small towns in other states to take their sludge. Their efforts met with mixed success. Alabama residents shut off all attempts to export New York sludge to their pastures, and Merco's efforts in Oklahoma failed in four towns. In Thomas, Oklahoma (population 1,244), news of Merco's interest triggered what town mayor Bill Haney described as a "civil war." Within two weeks after the plan went public, state officials had received over 200 angry letters from Thomas residents, prompting the Oklahoma legislature to unanimously pass a moratorium prohibiting land application of sludge that contains "significantly higher" levels of heavy metal than sludge produced in the state.

FRIENDS IN LOW PLACES

In her work as an "environmental media consultant," Sarber faced questions that went beyond issues of nitrogen content and pH balance. She was called upon repeatedly to deny allegations that her employers were engaged in environmental violations, influence peddling and organized crime.

Merco came under criticism, for example, when it was discovered that one of its partners, Standard Marine Services, belonged to the Frank family barge empire, a group of companies labeled by the state as New York Harbor's worst polluter. Standard Marine owed over $1 million in taxes and judgments and was forced to drop out of Merco after it was unable to get financial bonding.

In 1992, *Newsday* reported that New York deputy mayor Norman Steisel, whose duties included oversight of the city's sludge program, was a partner in New York Organic Fertilizer Co., and noted that the brother of New York Senator Alfonse D'Amato was a partner in the law firm that negotiated New York Organic's contract with the city. A probe was launched to investigate possible influence-peddling, and company spokesperson Sarber promised that "we will cooperate fully."

A few months later, Alphonse D'Arco, a former boss for the Luchese crime family, testified during a June 1992 murder trial that two Merco partners—the John P. Picone and Peter Scalamandre & Sons construction firms—had paid $90,000 a year in payoffs to the Luchese family. In separate but corroborating testimony, D'Arco and Gambino family turncoat Salvatore ("The Bull") Gravano also described Picone's involvement in a sweetheart deal involving bid-rigging and manipulation of New York labor unions to benefit the Gambino, Genovese, Luchese, Colombo and Bonanno crime families. Picone and Scalamandre were unavailable for comment, but Sarber was brought out to state that her employers "have had no business or personal relationships with any of these people."

In 1994, *Newsday* reported that Merco was using the Cross Harbor Railroad to ship its sludge, even though Salvatore Franco, a major Cross Harbor investor, had been banned for life from the waste industry in New Jersey. In response to a reporter's inquiry, spokesperson Kelly Sarber said Merco had no idea that Franco was involved with Cross Harbor.

WALK SOFTLY AND CARRY A BIG SLICK

On December 10, 1991, *Newsday* reported that "stealth is New York City's new weapon in its war on sludge. The city has decided to make a secret of where it plans to ship tons of the sewage gunk beginning next month. It hopes to secure permits for sludge disposal in some towns before the local gadflys can get all riled up about it. Thus, the names of towns where New York Organic Fertilizer . . . has applied for sludge permits are strictly hush-hush. . . . The city . . . wants to avoid a political circus such as the one in Oklahoma, where three towns rejected another New York plan for sludge because they feared it could carry everything from AIDS to organized crime with it."

Bowie, Arizona (population 400), was one of the communities targeted with "passive public relations" in 1992, when Bowie resident Ronald K. Bryce received state approval to apply 83 million pounds per year of New York sludge on his cotton fields. The rest of the community found out about the plan when someone overheard a conversation in a restaurant in the summer of 1993, shortly before the first deliveries of sludge were scheduled to begin. Bryce had received his permits without public hearings or even public notice. *Arizona Daily Star* reporter Keith Bagwell sought an explanation from Melanie Barton, a solid waste official with the Arizona Department of Environmental Quality. "Our approval

was based on guidelines, which are like rules but without the public comment," Barton said.

Further inquiry by Bagwell discovered that over 100 million pounds of sludge from Arizona's own Pima County sewers had also been spread on area farms since 1983. EPA regulations had enforced limits for only one metal and one chemical in the sludge, even though Pima County sewage treatment superintendent Donald Armstrong admitted that the county sewer system received wastes from about 1,500 industries, roughly half of which use toxic chemicals. Tests showed that the Pima County sludge contained over 80 "priority pollutants," including dioxin, phenol and toluene, along with high levels of cadmium, lead and other toxic heavy metals.

Actually, the Arizona sludge was relatively *clean* compared to the stuff being shipped in from New York. "Sludge from San Diego, Los Angeles or New York you have to look at carefully—it's different in highly industrialized areas," said Ian Pepper, a soil and water science professor involved in studying Pima County's sludge-use program.

His assessment was confirmed by Ian Michaels, a spokesman for the New York City Department of Environmental Protection, who estimated that the city had 2,000 unregulated companies discharging industrial waste into the sewers, but admitted that his department had "no way of knowing how many . . . there are."

Despite this information, Ronald Bryce began spreading New York sludge on his farm in Bowie on April 5, 1994. Town residents complained that the state allowed him to spread millions of pounds of sludge before receiving any test results on the incoming material. Tests on the April shipment were finally completed in July, showing that the New York sludge contained petroleum hydrocarbons at 14 to 22 times the level at which state regulations require a cleanup from oil and gasoline spills. The tests also showed fecal coliform bacteria at 33.5 times the limit allowed under federal law.

"That sounds more like untreated sludge," said Laura Fondahl, an engineer at the EPA's San Francisco office. "It couldn't be land-applied—it would have to go to a municipal landfill, a dedicated sludge-only landfill, or to a treatment plant. Those are binding rules." Nevertheless, Bryce was allowed to resume spreading on his farmland in August 1994.

WHEN PUSH COMES TO SLUDGE

After Merco's rejection in Oklahoma, it turned to the Mexican border town of Sierra Blanca (population 500), one of the poorest towns in one of the poorest counties in Texas. Once again, citizens quickly mobilized to protest Merco's plans to spread sludge on desert grazing land—nine miles from a planned repository for nuclear waste from power plants in Maine and Vermont.

The town's sludge war hit the national airwaves in 1994 when it was featured on *TV Nation,* a satiric show hosted by investigative filmmaker Michael Moore. *TV Nation* accompanied a trainload of New York sludge cake from New York to Sierra Blanca, and aired bitter complaints from local residents interviewed on the dusty streets of Sierra Blanca. "You can smell it all over, and I don't see why New York has any right to dump their shit on us," one woman said angrily. Another added, "We've gotten a lot of allergies. People who have never had allergies in their lives have come up with a bunch of stuff like that."

The program also interviewed Hugh Kaufman in his Washington office. "This hazardous material is not allowed to be disposed of or used for beneficial use in the state of New York, and it's not allowed to be disposed of or used for beneficial use in Texas either," Kaufman said. "What you have is an illegal 'haul and dump' operation masquerading as an environmentally beneficial project, and it's only a masquerade. . . . The people of Texas are being poisoned."

Soon after the show aired, Merco filed a lawsuit seeking $33 million in damages from Kaufman and *TV Nation*'s producer, Sony Entertainment Pictures, Inc., accusing them of "defamatory and disparaging statements . . . made with actual malice and a reckless disregard for the truth." The lawsuit complained that Merco had spent about $600,000 in direct public relations efforts to establish good will in Texas, half of which had been lost as a result of the program. Kaufman has counter-sued for $3 million.

In the past, Kaufman has blown the whistle on toxic contaminations of Love Canal and Times Beach, Missouri. Under the Reagan administration, he took on EPA Administrator Anne Burford, who was forced to resign after being found in contempt of Congress for not turning over documents. Burford's assistant administrator, Rita Lavelle, served four months in jail for lying to Congress.

"This issue is much bigger," Kaufman said, "because this is obstructing a criminal investigation of companies affiliated with organized crime involved in the illegal disposal of waste with an illegal contract at great taxpayer expense. The Burford-Lavelle thing was just using superfund for political shenanigans—determining which site would be cleaned up or not cleaned up based on politics." In Sierra Blanca, he said, "We're talking about government basically taking a dive for organized crime during an open criminal investigation." ■