

NYC's Wakeup Call: Clean Vehicles = Healthier Kids

While childhood asthma is on the rise across New York City, hospitalization rates for the disease are as much as 21 times higher among children in poor, predominately minority neighborhoods than among their more affluent counterparts. This is the startling conclusion of a report released this past summer by the Center for Children's Health and the Environment at Mount Sinai Hospital in Manhattan. One of asthma's main exacerbating factors is vehicle emissions — a pollution source that New York City is doing far too little to alleviate, a forthcoming study from INFORM concludes.

Engine exhaust from the 1.9 million cars, buses, and trucks running on city streets is associated with two major pollutants: ground-level ozone and fine particulates. Ozone



levels in New York City are second only to those of Los Angeles, and particulate pollution — microscopic particles of dirt emitted

by diesel-burning buses and trucks — is the worst east of the Mississippi. Particulates lodge in

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Congress Restricts the Right to Know: Accident Scenarios Barred from the Public Eye

Every year in the US, industrial accidents involving hazardous chemicals — from leaking storage containers to explosions on the highway — occur by the thousands. Between 1987 and 1996, a total of 605,000 such accidents resulted in the deaths of 2565 people, according to the Chemical Safety and Accident Investigation Board. To reduce their frequency and improve the ability of communities to respond, an EPA regulation that took effect in June requires a range of facilities to provide risk management plans (RMPs) to the EPA, to local emergency planning committees, and to the public. But a new law has cost citizens their right to know about a vital component of these plans.



In their RMPs, companies must disclose the estimated effects of a chemical release on humans and the environment beyond the facility's fence line: what hazardous substances could be released and in what quantities, how far they could travel before dissipating, and how many people could be injured. These "off-site consequence analyses" include worst-case projections of the results of the largest possible ground-level release of a chemical contained in a single vessel or pipe. Most facilities must also prepare "alternative" scenarios based on likely weather conditions and properly operating systems to stop the chemical's spread.

The multiple failures envisioned in worst-case scenarios are rare, but they do occur — 15 years ago, the accidental release of methyl isocyanate at a Union Carbide plant in Bhopal, India, killed more than 2000 people. With public access to worst-case and alternative scenarios, citizens could promote land use and zoning decisions that protect the community in case of an accidental release. But legislation exempting this information from the nation's Freedom of Information Act was signed into law this summer. As a result, citizens wishing to know the potential effects of a chemical accident in their community will not be able to obtain this data from the EPA.

Informed Decision-making

In the mid-1980s, INFORM's research helped spur the creation of the EPA's Toxics Release Inventory (TRI), a nationwide database of information on some

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Letter from the President

Public Accountability Needs Expanding, Not Restricting



As the lead story in this issue recounts, a county correctional facility is under construction in New Jersey right now

that is within several hundred feet of a large chemical plant and a stone's throw from another. A serious accident at either site would sicken and possibly kill thousands of prison inmates and staff. And, in fact, the owner of one of the plants, General Chemicals, had an accident in 1993 at a similar operation in California, which sent 20,000 people to the hospital with skin rashes and burning of the respiratory tract.

Accidents do happen. But did the planners of this correctional facility know all they needed to know to make an enlightened decision about where best to site it? How well informed was the public debate over the prison's location? And how many other facilities around the country — schools, senior housing,

shopping centers — are being sited without the benefit of information on the potential risks of chemical accidents at nearby plants?

A new federal regulation requires more than 40,000 industrial plants to report risk management plans and worst-case projections of the results of an accidental chemical release to the EPA and the public. According to the agency's original rules, the regulation would bring to light the risks these plants pose to workers and the surrounding community, as well as the steps they have taken to improve site safety. Through public knowledge and public pressure, it promised to give companies an incentive to operate their plants more safely.

However, the Chemical Manufacturers Association (the industry's trade group) lobbied hard to ensure that worst-case accident data would remain under wraps. Congress obliged, and this summer — with little fanfare or public awareness — legislation was passed restricting public access to this crucial component of companies' risk management plans. As a result, people who live in the shadow of plants

where hazardous chemicals are used and stored have been stripped of their right to know about the exact risks posed by an accident involving a release of these substances.


A decade ago, the CMA fought against public reporting by industrial facilities of the hazardous chemicals they release as waste. The Toxics Release Inventory (TRI), established over the organization's protests, revealed a flow of billions of pounds of chemical wastes that stunned even industry leaders. But public availability of TRI data launched a debate between companies and the communities surrounding their plants that has led to impressive pollution prevention initiatives. Acknowledging their accountability for these vast waste streams has paid off, with thousands of plants taking steps that have made their operations not only safer, but more economical.

Despite the restriction on public access to risk management plans, the new EPA mandate has caused some companies to confront the risks posed by their facilities and take a reassuring step forward. Solutia, DuPont, and Dow Chemical, among others, have chosen to voluntarily disclose their projections of worst-case chemical releases, enabling the public to evaluate their efforts to operate more safely year after year. We hope to see many more industry leaders do likewise, thus making it clear that they intend to do business in a different way.

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Congress Restricts Right to Know

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600 toxic chemicals generated as waste by industrial plants. The TRI marked the emergence of the public's "right to know" about dangerous chemicals as national policy. Prompted by community access to TRI data, many facilities have sped up efforts to prevent pollution from chemical wastes. Publicly available RMP data would have a similar effect, prompting companies to work harder on plans that reduce the risks to communities of chemical accidents at nearby plants.

Knowing where a chemical release is likely to do the most harm would also allow citizens to protect themselves. Armed with complete RMP data, they could:

- Discourage the siting of hospitals and other institutions with vulnerable populations within those zones.
- Protect institutions already located within those zones by encouraging better safety technology and training methods at local facilities.
- Ensure that the local medical and emergency response systems can handle a worst-case release.

A Terrorist Canard

The restrictive legislation was passed in response to lobbying by the Chemical Manufacturers Association, which persuaded Congress, the FBI, and other law enforcement agencies that widespread access to worst-case chemical accident scenarios would make it easier for terrorists to target

Case Study: Essex County Correctional Facility

A prison under construction in Newark, New Jersey, illustrates the need to incorporate worst-case analyses into planning decisions at the local level. The Essex County Correctional Facility will be located across the street from Elan Chemical Co., a plant that stores 7000 gallons of flammable ethyl chloride gas in aboveground tanks. The worst-case scenario described in the executive summary of Elan's RMP projects a vapor cloud of exploded ethyl chloride traveling 1000 feet beyond the company's fence line. The prison will stand only 300 feet outside the plant limits.

Also nearby is a

General Chemicals

facility that produces oleum and sulfuric acids. In 1993, an accident at a similar General Chemicals plant in Richmond, California, resulted in a 15-mile cloud of oleum (a gaseous acid) that sent 20,000 people to the hospital with skin rashes and burning of the nose, throat, and lungs. According to the executive summary of the Newark plant's RMP, the worst-case scenario projects airborne oleum from a failed storage tank traveling 11 miles before reaching nonhazardous concentrations. The prison will be just down the street from this plant.

Had planners and the local community been apprised of these companies' worst-case data, they would no doubt have chosen a different location for a prison that will house 2400 inmates, plus correction officers and other staff.

facilities for sabotage. Opponents of the bill argued that restricted access is a false measure of security, since more than enough information is already available through libraries and the Internet to allow terrorists to determine which facilities use and store toxic materials.

Most important, barring public access to this information will hinder dialogue between communities and local plants — dialogue that could help mitigate the consequences of offsite releases through improved accident prevention and site safety plans.

Right to Know, Sometimes

When the RMP regulation took effect in June, INFORM submitted a request to the EPA for complete data, including worst-case and alternative accident scenarios. A few days later, the Senate accepted the House version of the bill restricting access to these portions of the plans. On August 5, President Clinton signed the legislation into law, effectively nullifying our request.

While the new law requires the Dept. of Justice (i.e., the FBI) to study ways to reduce the vulnerability of chemical plants to criminal activity that could harm workers and the public, it does nothing to actually reduce hazards at these facilities. And while citizens concerned about the risks to their communities can find executive summaries of RMPs on the EPA's Web site (at [www.epa.gov:9966/srmpdcd/owa/overview\\$/startup](http://www.epa.gov:9966/srmpdcd/owa/overview$/startup)), the amount of worst-case accident data disclosed in the summaries is up to the individual companies. Thus, citizens living near one plant may have enough information on potential releases to urge safer practices, but other communities may remain in the dark — exactly the kind of situation that full public disclosure was meant to avoid. ❖

Improved (but still limited) access to RMP executive summaries, searchable by state, chemical, or other topic, is available at the Right-to-Know Network, www.rtk.net.

Three Join INFORM's Board

INFORM recently welcomed three new members to its board of directors.

Adam Albright is a private investor and former venture capitalist with a wide range of business involvements in the United



Douglas Levere

Adam Albright

States and abroad. In the early 1990s he divested himself of many of these holdings to found the ARIA Foundation, which supports national and international environmental charities. Since then, he has dedicated his energy and experience to helping those charities thrive.

"What strikes me about INFORM," Mr. Albright says, "is the quality of its reports and its potential for bringing about positive change." As a board member, he will be focusing on the strategic planning that will pave the way for INFORM's second quarter-century of operations. "I'd like to help ensure that we take advantage of all the strategies we can to make as big an impact as possible," he says.

Mr. Albright is director emeritus of Population Communications International, which works on media initiatives that promote women's education and family planning. He is chairman of the board of directors of Conservation International and also serves on the boards of Natural Resources Defense Council, the Colorado-based Rocky Mountain Institute, and Redefining Progress, a progressive think tank.

Mr. Albright received his bachelor's degree in economics and sculpture from Brown University.

Constance (Coco) Hoguet Neel teaches English and history at the Hewitt School, a private school for girls in New York City. In addition to teaching, she is faculty advisor on the school's literary magazine and has directed a number of student theatrical productions. An experienced fund-raising volunteer, she also served as Hewitt's director of development during a major capital campaign in the late 1980s.

A member of the neighborhood environmental group Grass-Roots, Ms. Neel first became acquainted with INFORM when President Joanna Underwood addressed Hewitt's student body on waste and recycling issues. "I found it riveting," she says. While on leave from her job to recuperate from orthopedic surgery, Ms. Neel volunteered at INFORM, where her enthusiasm in conducting donor research was greatly appreciated. "I'm very excited to be a member of the board," Ms. Neel says, "and I



Emily Robbins

Coco Hoguet Neel

look forward to helping make INFORM better known to the public and to people who support the environment."

Ms. Neel is on the board of directors of the Turtle Bay Music School and the Canterbury Choral Society, to which she belongs as a singing member. She earned her B.A. in economics from Smith College and her M.A. from Columbia University's Teachers College.

Frederick H. Osborn, III, is director of philanthropic services for the Episcopal Church Foundation and principal of Cat Rock Counsel, a

firm that specializes in socially conscious investment advisory services. In the 1970s, he started a Boston-based electronics company that did pioneering work in integrated-circuit technology.

"I first became interested in INFORM because of its bold and aggressive approach to assisting corporations to solve their environmental problems," Mr. Osborn says. "I like the fact that the organization is solution-oriented, that it works with businesses in a positive and collegial way." As a new board member, Mr. Osborn is enthusiastic about helping INFORM develop stronger connections to foundations and other funders so our work can proceed on a broader financial footing.



Joanne Giganti

Fred Osborn

Mr. Osborn has served as director of development for the Nature Conservancy of New York State and was an early member of the Social Venture Network, an association of entrepreneurs who direct some of their profits to social causes. Long active in civic and community affairs, he is currently a member of the advisory board of the President's Council on Sustainable Development. He is also chair of the board of directors of the Hudson Highlands Music Festival and a board member of Scenic Hudson, the Hudson Highlands Land Trust, and several other groups.

Mr. Osborn earned a bachelor's degree in economics at Colby College and served in Vietnam with the US Army. ❖

NYC's Wakeup Call (continued from page 1)

the respiratory tract and, together with ozone, have health effects ranging from allergies, respiratory infections, and asthma to various forms of cancer. Children, because of their small size and developing lungs, are particularly at risk.

Government Foot-Dragging

In a recent study of policies and programs in New York State, INFORM found that the city's shift to clean-fuel alternatives — such as compressed natural gas (CNG) and electric vehicles — has been stymied through the inattention of key state and city leaders. For example:

- Governor Pataki has largely ignored the role of the state's Metropolitan Transportation Authority (MTA) in perpetuating the city's air quality problems. The MTA operates New York City Transit — the largest municipal fleet in the country. In 1996, under pressure from environmentalists, New York Transit promised to convert 500 of its 4000 diesel-powered buses to cleaner fuel within five years. But so far, just 34 of the agency's buses are running on CNG. The governor could use his influence with the MTA to make acquisition of clean-fuel buses by New York Transit a higher priority. Throughout the US, more than 22 percent of all municipal bus orders are for vehicles fueled by CNG, confirming the commercial viability of this clean-fuel option.
- In a recent decision, New York City's Taxi and Limousine Commission (TLC) refused to allow the front seat of CNG cabs to be used for luggage. Since the CNG fuel tank takes up trunk space, this prohibition strongly discourages the shift to natural gas in a critical sector. Out of a fleet of 12,000 vehicles, only about 2 percent of the city's taxis



Command Bus Co.

This Brooklyn-to-Manhattan express, one of 72 CNG buses in Command Bus Co.'s 133-vehicle fleet, runs on compressed natural gas. The company leases the buses from the city's Dept. of Transportation, which hopes to have half its fleet of 1150 buses running on CNG by 2001.

run on clean fuels (mostly CNG). Not only could the TLC reverse its decision, the state could publicize a variety of incentives that fully cover the incremental cost of purchasing CNG cabs.

Opportunities Abound

In addition to municipal buses and taxicabs, New York City's school buses are a prime target for cleaner fuels as well.

- With the exception of a single electric bus in the Bronx, all of the city's 4850 school buses run on gasoline or diesel. And during the school year, the noxious fumes these vehicles emit are inhaled by almost 170,000 students every day they go to school. The city's Board of Education, through its authority over school bus contracts, could encourage private companies to take advantage of clean-fuel vehicle procurement incentives available from the state.

More public and private sector vehicle fleets would be willing to make the shift to alternative fuels were they confident of a convenient refueling infrastructure.

- While Brooklyn Union Gas operates fueling stations in Brooklyn,

Queens, and Staten Island that drivers of CNG cabs can count on, those operated in Manhattan by the Con Edison utility company sometimes close without notice. Con Ed could encourage the use of CNG cabs by regularizing the hours of its pumps.

- The city has a longstanding invitation from the US Department of Energy to join its Clean Cities program, through which the DOE promotes and helps community clean-fuel initiatives. An active Clean Cities program in New York City would be helpful in establishing an adequate number of clean-fuel refueling stations.

Among the many factors contributing to the asthma epidemic affecting thousands of New York City's poorest children, air pollution is one we can do a lot to alleviate now. Reducing harmful emissions from cars, trucks, and buses is an effective way to get at the source of one of the disease's worst aggravating factors — while helping vulnerable children and giving all New Yorkers a breath of cleaner air. ❖

For more information, see *Clean Transportation for New York: A Long Road Ahead* on INFORM's Web site.

Working for Waste Prevention Worldwide

Green Building in Asia

A member of Hong Kong's Legislative Council is using INFORM's recommendations on waste prevention to influence government policy on housing and urban development. In a paper that draws heavily on our 1998 report *Building for the Future*, Citizens Party chair Christine Loh asserts that much of Hong Kong's construction debris — accounting for half the city's landfilled waste — could be avoided through better building design.

With only 400 square miles at its disposal, Hong Kong has had to grow vertically to absorb its burgeoning population. The city's residential density is the highest in the world and property is extremely costly. Nonetheless, many buildings are dilapidated and structurally unsound. With the government now embarked on an urban renewal program that will result in the construction of thousands of new buildings — and the renovation and demolition of many more — the Citizens Party report calls for “a new quality vision that takes into account the whole life cycle of a building.” Its recommendations include:

- Promoting building longevity through the use of durable materials, through designs that make buildings adaptable to changing needs, and through stricter maintenance standards. The lifespan of the average building in Hong Kong is less than 30 years, and rejection rates from poor workmanship are as high as 50 percent.

- Using prefabricated structural elements to reduce the need for tropical timber — a major import that builders often discard after minimal use.
- Revising building codes to reduce the need for concrete and permit the use of recycled aggregate. Excessive concrete increases building costs in Hong Kong by an estimated 20 percent.

Ms. Loh argues that these and other design and management measures could make Hong Kong a world leader in sustainable urban living. An upcoming Chinese translation of highlights from *Building for the Future* will encourage the rest of China to seize this opportunity as well.

For more information, see *Building for the Future: Strategies to Reduce Construction and Demolition Waste in Municipal Projects* on INFORM's Web site.

Working for Pollution Prevention at Home

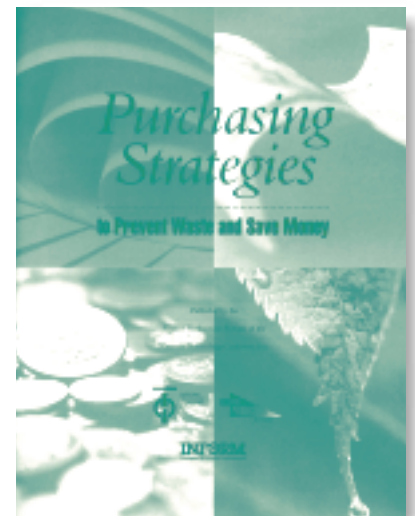
Wastewater in Michigan

In response to a request from the Ecology Center of Ann Arbor, INFORM Senior Research Associate Alicia Culver submitted comments to Michigan's Dept. of Environmental Quality on proposed amendments to a rule requiring businesses to report discharges of toxic chemicals into that state's waterways.



Now available from INFORM, **Waste at Work** describes how businesses and government agencies can reduce their purchasing, labor, and disposal costs through straightforward changes in procurement and workplace operations (see page 7 for ordering information).

Purchasing Strategies (co-authored by INFORM and the National Recycling Coalition) provides information on using the procurement process to prevent waste, save money, and improve efficiency (see NRC's Web site at www.nrc~recycle.org for ordering information).



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Michigan has a good track record of spurring pollution prevention in the Great Lakes through the collection of industry data on use and releases of toxic materials. But the new rules exclude from the list of reportable pollutants many persistent, bioaccumulative toxins (PBTs) targeted for minimization by the Environmental Protection Agency. PBTs are long-lasting substances that can build up in the food chain to harmful levels. Associated with cancer and a range of reproductive, developmental, and neurological disorders, they can travel long distances and persist for generations in people and the environment. PBTs are a special concern in Michigan, where fish consumption advisories are on the rise.

The exclusion of these chemicals from Michigan's reporting program is particularly significant given the EPA's new strategy of coordinating the federal government's efforts to limit PBT use and emissions with those of state, local, and tribal governments. "One way Michigan could better target these chemicals," Culver observes, "is to include the EPA's priority PBTs in its list of substances subject to the annual reporting rules."

The proposed amendments also raise the reporting thresholds for chemicals that are included under the rules. As a result, many potentially significant releases are likely to go unreported. This is especially troubling with respect to PBTs, which can build up to dangerous levels even when discharged in minute amounts. "INFORM's research and comments," says Charles Griffith, an Ecology Center project coordinator, "helps demonstrate that protecting the Great Lakes requires greater scrutiny of PBTs, not less."

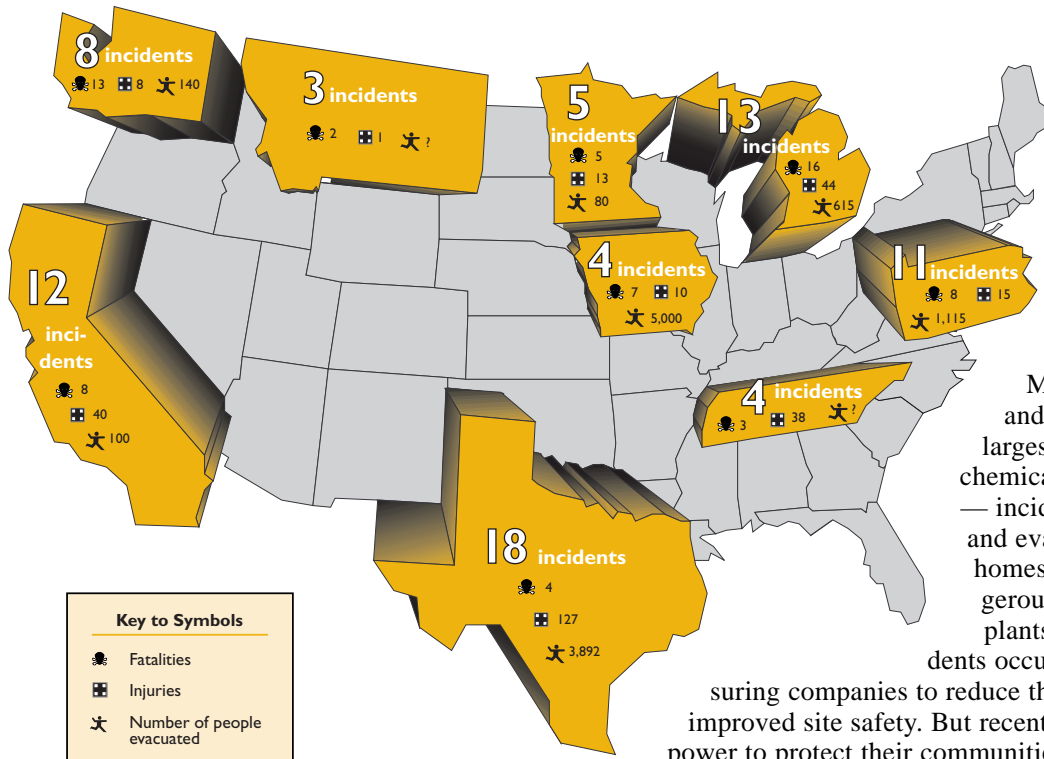
INFORM has been studying PBT use in the Great Lake states and will be releasing a report on the issue at the end of the year.



Summer Faces

INFORM's crop of summer interns provided invaluable assistance, especially to the research staff. *Front, left to right:* Lorraine Snyder, master's in environmental management/M.B.A., Duke University (class of 2001); Amy Hughes, master's in environmental studies, Yale School of Forestry and Environmental Studies (class of 2001); Kristin King, B.S. in psychology, Pennsylvania State University (class of 2001). *Back, left to right:* Mark Brady, M.S. in earth resources engineering, Columbia University (class of 1999) and Thomas Tin, B.A. in economics and business management, State University of New York at Stony Brook (class of 1999).

INFORMaTion: Chemical Incidents & Consequences, August 1998 – August 1999



Key to Symbols

- ☠ Fatalities
- ☒ Injuries
- ⤴ Number of people evacuated

Accidents involving hazardous materials happen often and everywhere. Between 1987 and 1996, 605,000 accidents in all 50 states killed 265 people and injured approximately 2550. In the past year, Texas, California, Michigan, Pennsylvania, Washington, Minnesota, Iowa, Tennessee, and Montana experienced the largest number of fatalities from chemical leaks, spills, and explosions — incidents that also caused injuries and evacuations from workplaces and homes. Public information on dangerous substances used at industrial plants, where many of these incidents occur, is an effective tool in pressuring companies to reduce the risk of accident through improved site safety. But recent legislation restricts citizens' power to protect their communities by curtailing access to information on accident risks at local facilities (see story on page 1).

Map based on data provided by the US Chemical Safety and Hazard Investigation Board

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Strategies for a better environment

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