

Harold Etheridge is a drowning man.

As head of the Inactive and Abandoned Sites Division in the Department of Environmental Quality, Etheridge has the job of keeping track of the state's abandoned hazardous waste sites, which keep crashing onto his desk in wave after toxic wave.

Six years ago, there were 318 known abandoned waste sites in Louisiana. Today, there are 664.

The number grows by 50 each year. It will take a year or more just to inventory the sites the state knows about, longer still to figure out what needs to be done to clean them up, maybe forever to actually make them clean.

DEQ has cleaned up 18 abandoned sites in the six years since the state launched its cleanup program. At that rate, in 15 years the state will have 1,400 known abandoned sites and about 60 clean ones.

If oil platforms, refineries, chemical plants and plenty of jobs and paychecks are the gifts offered by Louisiana's extraordinary natural resources, then hazardous wastes represent a sizable part of the payment due for the goods received.

Etheridge said that with a huge infusion of money and staff, DEQ might be able to clean up most of the old dumps in his lifetime. But probably not. Etheridge admits he can't say for certain which of today's sites represent imminent threats to health and which are only minor problems.

Today, most of Louisiana's chemical companies are trying to dispose of their waste by burning it, pumping it deep into underground saltwater aquifers or putting it in lined holes in the ground that are supposed to leak less than the old pits did. Officials believe these technologies are working much better than the ones of the 1960s and '70s.

\*\*\* A history of hazards \*\*\*

Hazardous waste is very easy to make and very hard to get rid of. It has been generated by industry virtually since industry began. But the unwanted chemical-laced liquids, sludges, metals, dust and ash left over from industrial processes weren't regarded as a threat to the public until relatively recently.

Standards for proper disposal of hazardous waste as outlined in the Resource Conservation and Recovery Act, did not take effect until 1980. The act defines which wastes are considered hazardous, and outlines rules for safe disposal.

Until 1980, most companies disposed of toxic wastes by the primitive but time-honored method of digging a hole, filling it with goo and covering the whole mess with loads of fresh dirt, a practice that is illegal today. In many cases, plants simply hired anyone who had a dump truck and was willing to haul away their wastes. Often no records were kept of the hundreds of empty lots, pits or lagoons where wastes were dumped. In most cases, those are the sites still being discovered today.

State officials concede many such sites remain buried, oozing into groundwater and awaiting discovery. Others have been found and fenced, but there is currently no money or people to clean them up.

"There's no question that people are being exposed to extremely hazardous chemicals, either knowingly or unknowingly," said William Fontenot, an environmental specialist in the state attorney general's office who has spent more than 15 years tracking down hazardous waste sites. "In some cases, the (state) agencies know about the contamination and have done nothing to warn the public. In other cases, they should have known, and have done nothing. Industries have done the same thing: ignored the problems."

Fontenot said one of the biggest problems is that even when the sites are identified by the state, they aren't posted as being hazardous and people living nearby aren't warned.

"It's irresponsible," Fontenot said. "It's beyond irresponsible. It's frightening."

\*\*\* Problems don't end there \*\*\*

Not all problems are at abandoned sites. At some operating chemical plants, old dumps are so massive and the chemical contamination so extensive that officials simply do not know how to begin to make them safe again, even with millions of dollars to spend.

And that doesn't include any problems from the estimated 20 billion pounds of new hazardous waste generated by Louisiana industries each year.

"We have 5,000 facilities that have (operating) hazardous waste facilities in this state," DEQ Secretary Paul Templet said. "With the present staff that I have, we're able to visit them once a year.

"When I told that to some folks from New Jersey who were down here, they were horrified. They visit their hazardous waste facilities once a week."

The state's orphaned waste sites range from hundreds of small pits filled and abandoned by unscrupulous landowners, to a handful of sprawling tracts such as Petro Processors in north Baton Rouge, a dump once considered state of the art and used by such industry giants as Dow Chemical.

Today, Petro Processors is a huge scar in the earth filled with such a hellish chemical concoction that it can't be dug up without releasing deadly gases to the air. Studies of the site in 1982 indicated that toxic chemicals may have been leaking into a drinking water aquifer used by local residents. The aquifer has not been tested since then, state officials said. Officials with the company formed to clean up the site say it may take 400 to 500 years to complete the job. Some state officials don't believe it will ever be clean.

Petro Processors is now on the Superfund list of the nation's most dangerous hazardous waste sites.

But it was not always so.

"At the time, in 1969, Petro Processors was state-of-the-art," said John Delaney, plant manager at Rubicon Chemical in Geismar. " 'Bring it to us,' they said. 'We're the experts.' Today's state-of-the-art is tomorrow's Superfund site."

\*\*\* A perilous pattern \*\*\*

Clearly, the methods used to dispose of hazardous waste today are better than those used just 10 years ago. But the history of hazardous waste disposal demonstrates an ominous pattern: At the time they were in vogue, most now-discredited waste disposal methods were declared state-of-the-art and environmentally safe.

The verdict is still out on today's methods, which are based on more advanced but still uncertain science. But warning bells are ringing.

Last year, the General Accounting Office, the investigating arm of Congress, said landfills lined with several layers of plastic and equipped with a system to remove any liquid wastes that leak between the layers are not working.

Such landfills were used on site until recently by most chemical plants in the state.

The GAO also said that in many cases, present rules don't require chemical plants to put up enough money in advance to fix their dumps if they do leak. Those rules basically require only that enough money be available to pay for monitoring on-site dumps for 30 years.

If the dumps leak after 30 years, "there is no assurance that funds will be immediately available to take

necessary actions," the GAO report said.

Louisiana State University geologist Brad Hanson, who has studied several hazardous waste sites in the state, issued a similar warning.

"What happens if one of these companies reorganizes and makes their plant a stand-alone facility, then it declares bankruptcy?" he asked. "Who's going to pick up the tab for cleaning up that site?"

Probably not the state, Etheridge said.

"We're already approaching problems that could bankrupt Fortune 500 companies, and the state doesn't have that kind of money," he said.

\*\*\* Difficulties are mounting \*\*\*

Here are the problems the state faces, involving both abandoned and working sites:

Louisiana has 11 Superfund hazardous waste sites awaiting cleanup. Furthest along in the process is the Bayou Bonfouca site in Slidell, which will cost \$150 million in federal money to reach an acceptable level of contamination. Yet the groundwater at the site will have to be pumped and treated for decades, perhaps centuries, officials say. State money - potentially hundreds of millions of dollars - will pay for much of that. And the primary contaminant at the site - creosote - is considered relatively benign compared to the array of chemicals at some others.

The abandoned sites not on the Superfund list will have to be cleaned up with state money. On average, Etheridge said, it will take six years and \$15 million for each site. Where the state will find the more than \$1 billion needed to accomplish the task is anyone's guess. The Inactive and Abandoned Sites Division has an annual budget of \$3 million.

Many of the state's operating and inactive commercial hazardous waste disposal sites are plagued with extensive contamination problems. Groundwater beneath the Rollins Environmental Services landfill in north Baton Rouge, for example, is extensively contaminated with wastes that have leaked from the landfill. State officials last year closed another site, the CECOS landfill in Livingston, because of threats to underground drinking-water sources. And recovery wells at another CECOS landfill in Calcasieu Parish that closed in 1984 still pump up millions of gallons of contaminated groundwater each year.

Despite its own problems, Louisiana is a major importer of toxic wastes. National statistics in 1987 ranked Louisiana first in net imports of hazardous waste, and second in 1988. State officials estimate Louisiana's net imports - waste imported minus waste sent to other states - totaled 511 million pounds in 1988, the last year for which comprehensive statistics are available. Much of it came from Texas. So far, efforts to stem the flow significantly have failed.

Louisiana industries are the nation's leading proponents of underground injection of hazardous wastes into deep wells. In 1988, the state pumped deep underground 15.2 billion pounds of liquid contaminated with more than 400 million pounds of toxic chemicals. Amid new concerns about the possibility of contaminating underground drinking water supplies and uncertainties about the science of deep subsurface geology, many companies have shut down their injection wells or plan to do so soon. But the state still harbors the nation's second leading injection plant, American Cyanamid in Jefferson Parish.

Many defunct landfills at operating chemical plants present problems just as difficult as the worst Superfund sites, but getting the companies to undertake a proper cleanup can take years. In one case, Dow Chemical USA in Plaquemine has an old toxic waste landfill built outside the Mississippi River levee near its plant. Last summer during the high river stage, part of the dump was under water, creating the potential for leakage of waste into the river. Etheridge said he has been negotiating for months to get the company to agree to move the dumpsite to drier ground.

\*\*\* A century of cleanups \*\*\*

Many official predictions for hazardous waste cleanups stretch to centuries. Experts concede that when they

make those kinds of estimates, they essentially are admitting that some sites will be contaminated forever.

"Under current plans, in your lifetime and my lifetime Petro Processors will never be cleaned up," Etheridge said. "They've got a lot more there than anyone thought. I'm tired of fooling with it."

A major reason for the fatigue is that Etheridge has had few colleagues until recently to help shoulder the burden.

"I started out with six people in 1984," Etheridge said. "This year I'll have 46. It's going to take several months just to get people into basic training courses and program the computers."

Etheridge also faces arguments with federal agencies, including the Environmental Protection Agency, over the fine print of new regulations, and the need to wage the incessant legal battles necessary to get recalcitrant industries to embark on cleanups of their own sites.

"The tragedy in all this is that the land can't defend itself," Etheridge said. "If you dump something on the ground, someone has to defend it. Down the road, Mother Nature will exact her revenge, but by then it will be too late."

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Illustration:

Environmental specialist William Fontenot of the state attorney general's office walks among abandoned barrels at a site near Eunice, La. [COLOR].

A dead snake lies atop a leaking barrel at an unfenced hazardous waste site near Eunice, La.

2 STAFF PHOTOS BY G. ANDREW BOYD

Dumping on Louisiana: Abandoned and inactive hazardous waste sites.

Source: Louisiana Department of Environmental Quality

MAP

STAFF GRAPHIC

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