

When NPC Services Inc. started cleaning up the Petro Processors hazardous waste dump just north of Baton Rouge in 1986, the company predicted that hundreds of thousands of tons of toxic waste would be removed from the site by 1990, and what was left would be pumped out within 20 years.

But within months, the cleanup effort had made dozens of workers at nearby factories sick, the estimate for the volume of waste was found to be ludicrously low and the entire plan was scrapped.

Today, NPC has a revised estimate for the cleanup: 200 to 500 years.

The company is in the middle of a new, court-ordered effort to remove wastes from one of the most dangerous dumps in the state. NPC is drilling more than 200 wells into the clay-capped dump to pump out the worst chemicals and try to keep remaining contaminants from sinking deeper, company President Robert G. Bolger said.

But state officials, neighboring landowners and even the federal judge who ordered the cleanup are not satisfied the new plan will protect public health adequately.

State Department of Environmental Quality officials believe wastes from the two Petro Processors dumps already are leaking underground into the neighboring Bayou Baton Rouge, a tributary of the Mississippi River.

And they also may be leaking into a community drinking-water aquifer, officials said.

"What I see at Petro Processors is a tremendous volume of very, very toxic materials that are going to be left in the ground," said Harold Etheridge, head of DEQ's Inactive and Abandoned Sites Division. "I don't have much faith in the remedy. I just don't believe that everything was done that could be done."

Neighboring landowner Dave Ewell is more succinct.

"I can tell you what's under there," he said as he surveyed the clay-capped dumpsite. "Misery. They put all that dirt up there and it's just covering up a bunch of mistakes."

*** A deceiving task ***

At first glance, Petro Processors appears to be one site that could have been cleaned up quickly.

Unlike many abandoned waste sites where the companies responsible for the mess are impossible to find or long ago bankrupt, Petro Processors was the local dump of choice for several of the world's largest and most profitable chemical companies. And they all agreed to share the cost of cleanup.

But the cleanup of the Petro Processors site has been a 10-year debacle of legal wrangling and bungled excavation attempts that have sent toxic clouds into adjoining plants.

As the effort has advanced under the direction of U.S. District Judge Frank Polozola, it has at one time or another violated several accepted principles of hazardous waste cleanup.

- * Don't launch a cleanup without identifying exactly what's to be cleaned up.
- * Don't conduct a cleanup without taking into account the effects on neighbors of releasing toxic fumes.
- * Don't count on leaving the wastes in place as a long-term solution.
- * Don't assume Louisiana's soils will contain highly toxic wastes forever.

* Don't expect environmental officials to take seriously any cleanup plan that lasts longer than their lifetimes.

Polozola recently expressed grave concerns about the pace and effectiveness of the cleanup. He has ordered Louisiana State University scientists to try to come up with a better idea.

*** A tale of two dumps ***

Petro Processors, near the small community of Alsen just north of Baton Rouge, actually consists of two dumps used to dispose of chemical wastes between 1964 and 1980. The disposal method was legal then, although it would not meet standards adopted since.

One dump, called the Scenic Highway dump, has liquid chemical wastes at least 14 feet deep throughout the site. A second, at Brooklawn about 12 miles away, has several lagoons filled with chemicals, waste-filled drums and solid industrial wastes.

The wastes came from more than a dozen companies, including Dow Chemical, Shell Chemical, American Hoechst, Exxon, Allied-Signal, U.S. Steel and Uniroyal.

In 1980, federal and state officials filed suit against Petro Processors and the companies using it to force a cleanup of the dump. Petro Processors immediately declared bankruptcy, leaving the industries holding the bag.

The companies joined to form NPC Inc. The federal lawsuit landed in the courtroom of Polozola, who gave NPC and the government four months to prepare for trial - nowhere near enough time to study the site properly.

Most hazardous waste sites require one to five years of intensive study and sampling before cleanup begins. And the Petro Processors site, by all accounts, represents one of the most complicated and extensive hazardous waste contamination problems in the nation.

The area's geology is complex, and not really understood by state, federal or industry officials. Nor did anyone know for sure how far the chemicals had sunk into the ground or flowed away into shallow underground aquifers.

The contamination from the two sites has spilled into the neighboring Devil's Swamp, owned by Ewell and his family, and is believed to be leaking underground into Bayou Baton Rouge, a tributary of the Mississippi River. The swamp has been posted as a hazardous waste area.

By 1982, tests showed liquid chemicals oozing from the pits had sunk to within 72 feet of a local drinking-water aquifer used by Alsen residents and industries. No samples have been taken since then, state officials said.

In addition, about 11,000 people live within a four-mile radius of the site, well within reach of possible air pollution released from a cleanup operation.

Raphael G. Kazmann, an engineer hired by state officials in 1983 as an expert witness in the federal lawsuit, said there just wasn't enough good information about the dump to make a responsible decision about how to clean it up.

"I took a look at it and there was no data you could trust. All the data had been garbled, or hadn't been done properly," Kazmann said recently.

*** Settling the suit ***

Only days before the case was to go to trial, officials from all sides met in an attempt to work out a settlement.

Kazmann later said officials with the U.S. attorney's office were more concerned with reaching a settlement that was legally correct, rather than one that would ensure a safe cleanup.

The meeting's results - an endorsement of NPC's proposal for digging up the material and placing it in a huge earthen vault at the same site - so upset Kazmann that he quit.

"The substance of the entire matter has escaped both sides of the controversy: how to best protect the citizens of Baton Rouge and the surrounding environment from (wastes) from the two neighboring Petro Processors sites," Kazmann said in a letter to state officials after his resignation.

It took another four years of court delays and tests before workers began cleaning up the site.

During that time, the dump so often caught fire from the heat of the sun that local officials joked that summer didn't really start until they saw smoke and flames at the site.

During investigations at the site in 1984 and 1985, fumes wafting from the site violated limitations on offsite releases 47 times, EPA documents say.

Finally, in December 1987, cleanup began. But it shuddered to a halt almost as soon as it started when an illegal cloud of toxic hexachlorobenzene and hexachlorobutadiene moved offsite close to the ground and onto the properties of two adjacent industries, Reynolds Metals Inc. and Schuylkill Industries.

Workers in both plants were forced to don respirators.

A complaint filed by Reynolds with the federal Occupational Safety and Health Administration said 42 employees suffered from nausea, headaches, dizziness, sinusitis, vomiting, sore throats and burning eyes, nose and lips after the releases of chemicals on that first evening and ensuing nights.

If the emissions continued, workers would have a dramatically increased chance of contracting cancer, according to a study commissioned by Reynolds.

"It affected my health," said Gerald Tillman, president of Aluminum Workers Local 275 at the Reynolds plant. "Now, my medical record looks like a book. There's respiratory damage, immune system damage and nerve damage."

*** Back to square one ***

EPA officials had seen enough. They called a halt to the cleanup and, with Polozola's approval, sent NPC back to the drawing board.

NPC abandoned the idea of digging up and removing the wastes. Instead, the company proposed to leave them where they are, sink 200 to 300 wells into the ooze, cut trenches through the dumps, pump up as much liquid as possible and incinerate it.

The studies, and the subsequent court approval, took another two years.

Based on computer models, NPC said, the wastes would be prevented from reaching the groundwater aquifer below, even though it would take 200 to 500 years of pumping to remove 90 percent of the liquid wastes.

Those same computer models were used in studying a hazardous waste site at Dow Chemical in Plaquemine, and they predicted wastes similar to those at Petro would never move through the soil. But recent tests show the wastes have sunk 8 feet in four years, casting doubt on the accuracy of the models.

Even before those recent tests, EPA consulting engineers in 1988 had criticized the NPC computer models, saying that one of the models apparently concluded without proof that clay above the present contamination had cracks that allowed the wastes to sink, but the clay below the contamination did not.

The consultants also said the maximum cleanup time estimate of 500 years is meaningless.

"It is expected that the active containment measures will have to be continued for such a long time that there

is little point in trying to predict when they can stop," one consultant said. "In essence, the industry defendants are considering perpetual operation of the system."

DEQ's Etheridge would rather see the industries responsible for the site look for other solutions that will clean up Petro quickly, no matter the cost.

"Every time the powers that be have gone along with NPC's plans despite other people's objections, they have not been able to do what they said they would do," Etheridge said.

"They say they're going to spend \$200 million over 200 years to pump and treat. You see the list of (corporate defendants)? Do you think they can't afford \$1 million a year? That's pocket change."

Illustration:

Dave Ewell stands next to a sign warning people away from his land. Ewell owns 500 acres contaminated by chemicals that leaked from the adjacent Petro Processors toxic waste dump. [COLOR]

STAFF PHOTO BY G. ANDREW BOYD

Petro Processors Superfund site

STAFF MAP

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