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The Case of the Perturbed Poodles..

by Joel M. Vance

AL SMENTKOWSKI'S finicky poodles touched off the most involved and dramatic detective story in Missouri's short history of scrubbing up a world it has been busy getting dirty for 200 years.

The poodles wouldn't drink the water from a small stream that meanders across the Smentkowski property in Jefferson County, near the Franklin County line. They always had before.

When he investigated, Smentkowski found dead crawfish. "The whole stream was dead. Nothing was living." He complained to authorities and thus exposed a major oil and chemical disposal area upstream that would cost a half-million dollars to clean up.

It's a classic chronicle of the way minor incidents snowball into major environmental threats. Seldom are there big bangs — only tiny whimpers. Before it's all over (and the legal process could take years) some involved probably will be judged culpable, others merely negligent, but nearly everyone agrees that no one expected that ghastly problem child to grow as big and ugly as it did.

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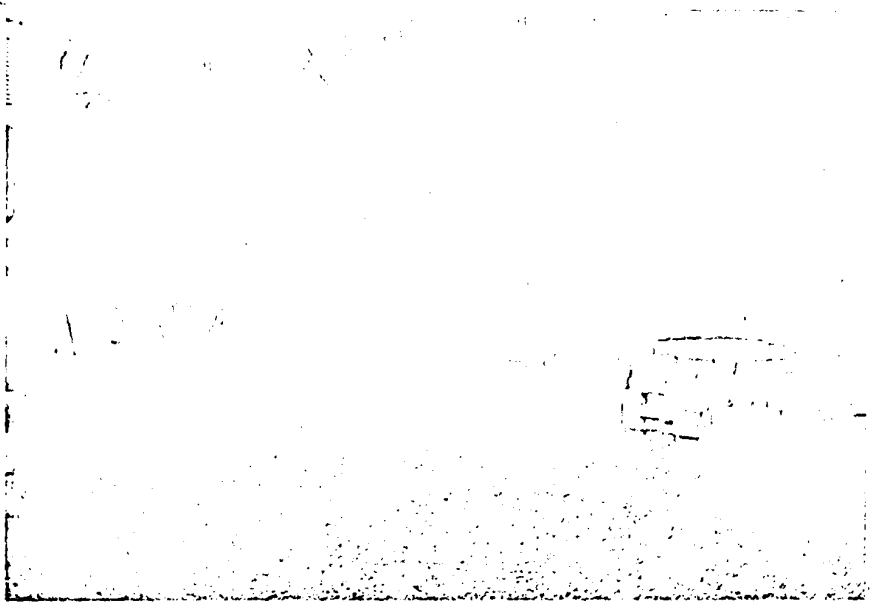
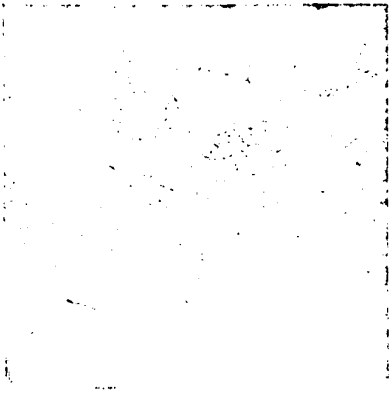


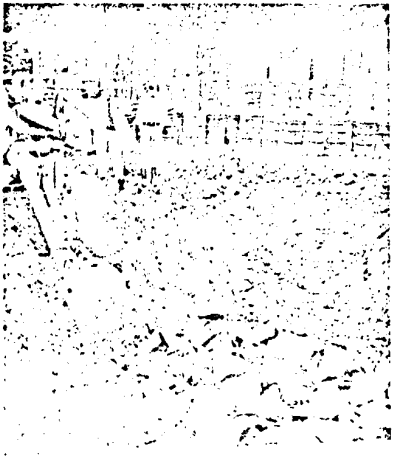
Giant portable filter system cleansed the stream while the main filter was set up.

Yellow "guck" from dump caused thirsty poodles to look elsewhere for a drink.

Dead crawfish in the polluted stream are the grey objects in center of picture.



Solid material being cleaned out of dump area for transport to a "safe" place.



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The bare facts are these:

On March 11, 1976, the Cedar Hill Fire Department answered a call to the Al Harris property in a fairly remote housing development along a wooded ridge and down into a small creek valley. Assistant Fire Chief James Woodard found a pit on fire behind the Harris trailer. Harris asked firemen to let it burn, but even as they debated, a barrel exploded ending everyone's doubts. The firemen put out the flames.

Across the gravel access road, some 200 yards away, Mr. and Mrs. Smentkowski had been noticing a strong smell for some time. On March 24, Mrs. Smentkowski called Jefferson County conservation agent Bill Kohne at the urging of her son-in-law, Terry Finder, who also is a conservation agent. Kohne investigated, talked to Harris, who said the Bliss Oil Company from Chesterfield had brought containers to him that it had picked up from industrial users. The Bliss driver paid Harris for use of the pit to dump the waste material. Harris said the containers held chemicals, but he didn't know what — paint thinner, he thought.

Kohne notified the Department of Natural Resources. In the meantime, the Smentkowskis discovered their dogs wouldn't drink the water anymore and that there was dead aquatic life in the little stream — which brought the Conservation Department back into the case. On March 25, Kohne and fellow agent Ken Drenon again visited the sludge pit and saw the dead stream organisms. Bob Zeman and Scott Nelson of the DNR's Environmental Quality Division already were on the scene, taking water samples.

Public involvement was widening, but only the tip of the iceberg was showing. Kohne and Drenon notified Everett Robinson-Wilson, water quality biologist with the Conservation Department. He reached the scene March 28. In the meantime, there had been a heavy rain which flushed the small creek into Calvey Creek, which empties into the Meramec River several miles above Pacific. Calvey Creek meanders for about 10 miles below the Harris property through Jefferson and Franklin Counties. Robinson-Wilson had trouble sampling the creek because of the high, turbid water.

But he took samples of the sludge and it proved highly toxic. Guppies exposed to a .0001 per cent solution died within 14 hours. Robinson-Wilson took the samples to a Columbia laboratory and, for the first time, the grim specter of PCBs appeared. PCBs were found in such high concentration it was difficult to analyze for other compounds.

PCBs are an emerging alphabetical threat to the environment. The letters stand for polychlorinated biphenal, a family of chemicals used since 1929. Chemically, PCBs are chlorinated hydrocarbons, similar to DDT and the other "hard" pesticides now mostly banned by the government. Monsanto Chemical of St. Louis is the only U.S. manufacturer of PCBs and has announced it will quit making the chemicals, but existing amounts will persist for years since the chemicals are so stable and resist almost any natural deterioration.

In fact, it is their stability that gives them their use. They are especially resistant to heat and are used in overheats and explodes. There are an estimated 30 million pounds of PCBs in capacitors on power line poles scattered over the nation, capacitors with a life of about 15 years (if vandals don't shoot holes or otherwise damage them in the meantime). There are few places where PCBs can be destroyed by the required high heat and very few approved storage sites — which the Harris pit definitely was not.

The Environmental Protection Agency estimated that some 700 million pounds of PCBs have been produced in 46 years. Much of the equipment it was used in has been junked and the oily liquids have soaked into soil, into rivers, has, in fact, contaminated the world, for PCBs have been found in animals in the Arctic.

The effects of PCB poisoning, documented in the case of some 15,000 Japanese who were affected in 1968, include skin problems, loss of hair, miscarriage, stillbirths and birth deformities. There are indications PCBs can cause or contribute to cancer.

The Cedar Hill case is not Missouri's first brush with PCBs. In 1975, the Department of Conservation bought carp from a commercial source in Green Bay, Wisconsin, and stocked them in five St. Louis city lakes as part of the urban fishing program. A week later, the Food and Drug Administration notified the Department that the fish were PCB-contaminated and the Department immediately removed all fish from the lakes and destroyed them.

Even more recently, traces of PCBs and other chlorinated hydrocarbons (especially the pesticides dieldrin and chlordane) were found in fish from the Missouri and Mississippi Rivers. The Meramec also was tested and fish were quite free of serious problems. Other states haven't been that lucky. The U.S. Fish and Wildlife Service found in 1975 that all Lake Michigan coho salmon and lake trout tested had amounts of PCBs higher than the FDA maximum permissible level which, at that time, was five parts per million. FDA since has lowered the maximum to two parts per million. Mother's milk in a number of states has tested 1.8 parts per million.

Lake trout in Lake Superior, cleanest of the Great Lakes, also tested higher than 5 ppm. Michigan conservation officials say PCBs may interfere with fish reproduction and may be responsible for reproductive failure in fish-eating birds, including bald eagles. Some of the careless disposal of PCBs over the years seems incredible in light of what we know about the chemicals now (which probably isn't nearly all we need to know). For example, Robert Boyle reported in a late 1975 article in *Sports Illustrated* that a New York General Electric plant had been dumping an average of 30 pounds a day into the Hudson River since 1942. Not surprisingly, Hudson River striped bass had 11.4 ppm in their eggs, 4.01 in their bodies. PCBs accumulate in bodies — fish, eagles...or people.

The overwhelming response to the Cedar Hill case illustrates just how seriously environmental agencies took it. "We quite literally averted major environmental damage in the nick of time," says Dr. James Whitley, chief of water quality investigations for the Department of Conservation. The Department will monitor fish [illegible]

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contamination. Ironically, the samples that proved so clean were taken just below the mouth of Calvey Creek in 1976, so the Department has a perfect comparison for future tests.

The U.S. Coast Guard agreed to foot the bill for cleanup of an oil spill (which, in essence, was also a cleanup of the PCBs mixed in with the oil). Costs were at least $7,000 a day for equipment and hiring of an Ohio firm which specializes in such incidents. Even after all the contaminated dirt is hauled away, there will have to be periodic checks of well water, ground water, tests on Harris' hogs which were fed from barrel halves used as troughs, of the fish in Calvey Creek and the Meramec.

In the meantime, Mr. and Mrs. Smentkowski, who came to the quiet, heavily wooded valley to enjoy a quiet life, have found instead their lives changed and complicated. "My grandkids used to splash around in the stream," Mr. Smentkowski says. "There's not much water in it during the summer, but you know a kid — he doesn't need much to make a mess. And now they can't understand why they can't come and visit grandma and grandpa anymore and play in the stream. But that's the way it goes."

The creek makes a bend at the corner of his property. The bend is where Mr. Smentkowski fed quail during the bitter 1976-77 winter. The bend has been cleared and bulldozed to allow construction of a charcoal filtering system that cleanses seeping groundwater from one part per million PCB to one part per billion. The filter is a big silo-like affair some 12 feet long, half buried in the ground. "It doesn't look much like it used to here," Mr. Smentkowski says. "But that's the way it goes."

If there is a lesson in this unhappy recital, it is that no one can be entirely safe from contaminations. Other facts that surface include that everyone is not aware of environmental hazard — and that not everyone cares. And as long as hazardous waste is produced, no matter what it is, it must be disposed of, whether safely or not.

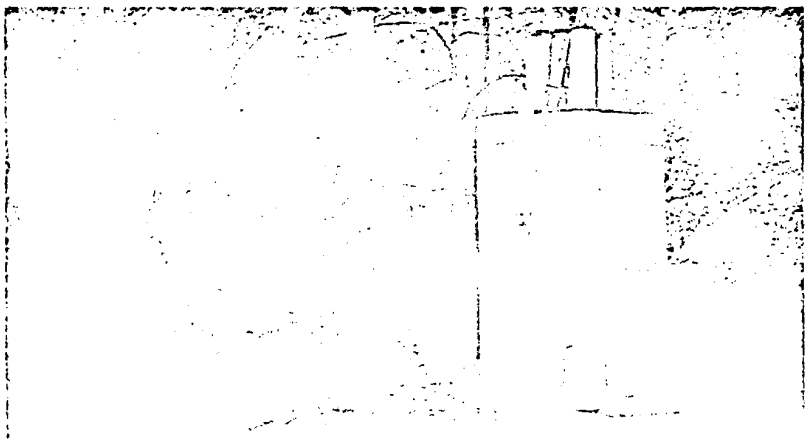
How many lethal waste dumps lie undiscovered, silently working insidious harm on the world in which we live? Out of sight, out of mind, frequently explains why things happen to the environment seemingly without anyone blowing the whistle to stop them. Poisons aren't always visible and the effects may be longterm or not positive enough to convince people to stop the poisoning. Is tomorrow's cancer really the result of today's contamination? Or is it just a scare story? The hazards aren't dramatic and just because they happen to a laboratory rat doesn't mean they'll happen to us. Right? But in the case of PCBs, 15,000 Japanese proved too large a laboratory rat to ignore.

In the Cedar Hill case, the inescapable fact is that the PCB dump happened and that it cost taxpayers a great deal of money to clean up.

It's a shame that the outrage over the incident probably will be directed more at the cost of the cleanup, rather than the more pertinent problem of contamination but, to quote Al Smentkowski, "That's the way it goes...." □

The final cleanup involved 4,500 barrels of contaminated dirt, hauled to Wilsonville, Illinois, for burial at an Environmental Protection Agency-approved site. The cost of the cleanup, paid for by the Coast Guard, was $575,000. All stream water is being pumped through the large filter on the Smentkowski property and will be for at least a year.

Permanent filter will filter groundwater on the site for at least a year to halt flow of PCBs into Meramec River System.



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