PCBs won't just go away

Old problem may keep getting worse

By RICK NICHOLS
Staff Writer

A glistening in Clyde E. Fuller's headlights as he pulled onto the paved road near Snow Camp, a narrow, oily stripe of PCB-laden liquid chemicals that smelled vaguely like moth balls.

The scent was stomach-turning. It hung close to Alamance County's damp meadowlands and to Fuller, 32, a state chemical analyst, it was suddenly — suspiciously — familiar.

He'd come across the same odor while checking on another roadside stain that had been sending nauseating fumes across miles of tobacco fields outside Benson earlier that day.

Fuller stopped his car, plucked a few blades of grass and stuffed them in a plastic bag.

That was Aug. 2, and by last weekend Fuller's grass — along with soil samples from Johnston County and vegetation picked up by a highway patrolman south of Pittsboro — had yielded the first, tentative evidence that North Carolina had a disturbingly widespread case of PCB contamination on its hands.

State technicians have since confirmed that more than 100 miles of state roadsides were deliberately sprayed with the toxic, cancer-linked polychlorinated biphenyls in jiggling, brown-stained ribbons often 20 miles — or one tank-truck load — at a stretch.

It's not the nation's and certainly not North Carolina's first run-in with the hazardous, "bioaccumulating" chemical that polluted fishing rivers near a General Electric plant in Georgia two years ago and has begun showing up in low levels in mother's breast milk.

In fact, mothers tested in North Carolina in 1976 had higher levels of PCBs in their milk than those in any of the other nine states surveyed by the U.S. Environmental Protection Agency.

The state had its first PCB scare in 1971 when a coolant containing the chemicals dripped into 16,000 tons of fish meal at East Coast Terminals in Wilmington, contaminating poultry feed.

In North Carolina alone, Holly Farms slaughtered 77,000 chickens and five Piedmont egg producers destroyed an estimated 120,000 dozen eggs.

But not since vandals threw open the valves on tanks containing a witches' brew of industrial pollutants in Kernersville last summer has there been such an incident of flagrant, midnight dumping.

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PCB problem may get even worse

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The poisonous patchwork followed a deliberate pattern: baling at towns and intersections, but often spraying right on as the driver crossed bridges.

State scientists are reconstructing a chemical footprint from the spill sites that, like a Cinderella's slipper, they hope will lead them to the source.

In North Carolina, there are at least 22 manufacturers of the kind of transformer-related equipment that uses PCB oils. That does not include utility companies and scrap yards.

"I think this is a hanging offense myself," declared one member of the N.C. Environmental Management Commission, Jerome Sheffert, echoing the outrage of tobacco farmers and dairymen from Rowan to Alamance County.

But there was some feeling that stronger federal regulations on toxic waste disposal that went into effect in April may have encouraged the dumping incident in the first place.

Those rules require high-temperature incineration of PCBs at an estimated cost of $1 per gallon, according to Peter Principe, a U.S. Environmental Protection Agency manager.

But there's a hitch, at least temporarily.

None of the five incineration plants that have applied for federal operating licenses have been approved. And they're turning away PCBs as a precaution until their permits are granted, said EPA engineer Matthew Strauss.

There are, however, three far-flung landfills that are EPA-sanctioned for burial of specially sealed PCBs — one in Livingston, Ala. and others in Portland, Ore. and Twin Falls, Idaho.

At mid-week, O.W. Strickland, state solid waste supervisor, was contemplating how to move "a staggering pile of dirt" to Alabama, but by the weekend officials were revising downward the amount of soil they thought might be dangerously contaminated.

EPA has awarded a $1.6 million contract to M.B. Amundson of San Ramon, Calif., to build a trailer-mounted incinerator that could clean up roadside PCB spills precisely like the one Strickland's department may have trouble packing off to the landfill.

Company president Robert Mainhardt said it could be another nine months, though, before M.B.'s mobile unit is ready to roll.

When functional, he said, a bulldozer would scoop PCB-contaminated dirt into a hopper at one end, thermally destroy it in an afterburner developed with ram jet technology and send out "happy little atoms like you eat every day." EPA's next set of controversial PCB regulations — further restricting manufacturing uses and distribution of the potent chemicals — is scheduled for hearings Aug. 28.

Electrical and power companies, which have relied on heat-resistant PCBs in transformer oils since the late 1930s, are fighting the proposals tooth and nail.

At least 50 written comments, most of them critical, already have been recorded at the Office of Toxic Substances in Washington.

"Should the . . . regulations prove so difficult to comply with that many service centers get out of the transformer repair business," complains one from the Electrical Apparatus Service Association, "the disposal . . . of PCBs will be left in the hands of those who are unaware of or unconcerned about the dangers of PCB contamination of our environment."

The association represents 2,300 companies.

A third set of regulations, still being written, would completely ban manufacture or import of PCBs including the mixtures used in capacitors, microwave ovens, fluorescent light ballasts and TVs. That rule would be effective Jan. 1.

Although state epidemiologist Martin P. Hines has insisted an immediate health threat is negligible, it is the delayed health implications of long-term buildups of PCBs that worry scientists.

One N.C. University professor, who asked not to be named, suggested that blood and urine samples be taken immediately from affected residents to establish their "base-line" PCB levels.

Weeks or months from now, he said, new samples could be taken to see if levels increased.

Prof. J.B. Weber, who teaches weed science at N.C. State, said a mixture of powdered charcoal in soapy solution could be used to to deactivate the PCBs in residential areas.

PCBs, which have caused liver cancer and prenatal nerve disorders in animal experiments, are not eliminated from the fatty tissues of humans and build up the way DDT does.

But Hines has urged rural residents to not to panic, insisting that the vomiting and headaches they have been experiencing are transient symptoms of vaporized trichloroethanes, the host broth for PCBs.

The immediate risk to human health, he announced in an Aug. 10 bulletin county health departments, "is negligible." Hines, a doctor of veterinary medicine, acknowledged though that high-dose or long-term effects of PCBs are frightening.

Lengthy industrial exposures have caused numbness or tingling sensations in the hands and feet, abnormal liver functions, reddened and runny eyes, nausea, tiredness and an acne-like skin rash.

Symptoms have also included digestive disturbances, jaundice, impotence, nerve threats, coughing and some cases of stomach cancer, according to Hines's bulletin.

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