## TOXIC TRIAL

## Plaintiffs' lawyer knocks biodegradation theory

By DAN KENNEDY

BOSTON — The plaintiffs' lawyer in the Woburn leukemia trial said Friday that biodegradation is not a reliable guide to how long organic chemicals have been in soil and groundwater.

Attorney Jan R. Schlichtmann made that assertion in U.S. District Court during his cross examination of Dr. Olin C. Braids, a geochemist hired by Beatrice Foods Co., a defendant in the trial.

The plaintiffs, eight East Woburn families, charge that chemicals on a property formerly owned by Beatrice contaminated municipal wells G and H, which were closed in May 1979 after 15 years of use. The contamination, they say, led to six leukemia deaths and two illnesses.

On Thursday, Braids testified that chemicals at the Beatrice site could not have been deposited any sooner than the fall of 1979, several months after the wells had been closed.

He said he based his opinion on his experience that tetrachloroethylene (PCE), one of the contaminants on the site, is transformed into vinyl chloride in no more than six years.

The conversion, he said, is caused by micro-organisms that eat the chemical. Vinyl chloride was not discovered in any tests of soil and groundwater at the property until November 1985.

Two other chemicals at the Beatrice property, trichloroethylene (TCE) and dichloroethylene (DCE), actually represent intermediate stages in the biodegradation of PCE, Braids said, and would be transformed into vinyl chloride in less than six years.

The fourth chemical Beatrice is accused of allowing to contaminate wells G and H, 1,1.1-trichloroethane, biodegrades in-

to methylene chloride and chloroethane. Braids said, adding that neither of those chemicals has turned up on the property.

Schlichtmann, however, asserted that the biodegradation theory has never before been used by either Braids or anyone else to date how long chemicals have been present in a particular location — a point Braids conceded.

Schlichtmann added there has been little research in the field and little understanding of how factors such as lower winter temperatures could affect the process.

Braids countered he assumed biodegradation would come to a halt in the winter, and had built that into his estimate.

"I have confidence in what I've done," Braids said. "It may be the first time (it's been done), but I'll stick with my opinion."

When Schlichtmann asked him if it were not true that it could just as likely take seven to 10 years for vinyl chloride to show up, Braids replied his experience at other sites led him to believe it would take no longer than six years.

"I think anything could be possible," Braids conceded. "I'm not able to state an absolute opinion about anything except the speed of light."

Defense lawyers and Judge Walter Jay Skinner would not allow Schlichtmann to pursue one line of questioning — whether biodegradation should take place in wells G and H themselves.

Schlichtmann asked Braids about a "hypothetical" situation in which a well was discovered in May 1979 to be contaminated with PCE. TCE and DCE. Subsequent tests through January 1986 showed the continued presence of those chemicals. Schlichtmann said, but

added that at no time was any vinyl chloride found.

"Do you think there's something wrong with my water samples or something wrong with your theory?" Schlichtmann asked Braids.

But before Braids could answer, Beatrice attorney Jerome P. Facher and attorney Michael B. Keating, representing the co-defendant, W.R. Grace & Co., objected. They were sustained by Skinner, who said Schlichtmann was omitting important facts.

Schlichtmann then restated the question, and asked Braids to assume that the well had been turned off between May 1979 and January 1986.

Facher and Keating again ob-

jected, and were again sustained, and Schlichtmann abandoned the topic.

Neil Jacobs, a Beatrice attorney, later told reporters that the objection was based on the fact that wells G and H had been test-pumped for one month before chemical readings were taken in January 1986.

Braids had already testified that pumping, by drawing groundwater from a wide area, could interfere with vinyl chloride readings.

But Schlichtmann said he believed he had made his point that biodegradation is simply too complex and poorly understood to be used to determine when chemicals were dumped.

The plaintiffs say chemicals

at the Riley Leather Co. tannery, 228 Salem St., and at Grace's Cryovac manufacturing plant, 369 Washington St., were responsible for contaminating their water supply. Beatrice owned the tannery from 1978 to 1983 and retains liability.

Grace and Beatrice contend they did not pollute the wells, and that even if they did, the chemicals cited in the lawsuit do not cause leukemia.

Woburn City Engineer Thomas Mernin is expected to take the witness stand today.

Facher and Jacobs say they intend to show, through Mernin, that city officials never considered the tannery property to be a potential source of contamination of wells G and H.



Judge Walter Jay Skinner