

Toxic Trial:

Many Questions, Few Answers

By Daniel D. Kennedy

In May 1982 Jan Richard Schlichtmann, a young, Cornell-educated lawyer who specialized in medical malpractice cases, filed a lawsuit against two multinational corporations in U.S. District Court in Boston. His clients were six Woburn families, all of whom had a child who had died of leukemia or who was being treated for the illness.

Schlichtmann charged that W.R. Grace & Co., of New York, and Beatrice Foods Co., of Chicago, had contaminated two municipal wells in East Woburn. The suit alleged that the well water caused the leukemia cases and numerous other illnesses, including cardiac arrhythmias and disorders of the immune and neurological systems.

The case, which eventually grew to involve eight families and three defendants (UniFirst Corp. was later sued in Middlesex Superior Court in Cambridge), raised considerable hopes. Members of the community believed their questions about what had happened to Woburn would finally be answered — and that those responsible would pay.

But after seven years of legal maneuvering and millions of dollars spent on lawyers' fees, scientific tests and financial settlements, not one of the 28 surviving plaintiffs has ever taken the witness stand to tell his or her story to a judge and jury.

UniFirst settled prior to trial in 1985 for \$1.05 million without admitting responsibility.

In July 1986, following a 78-day trial, a six-member federal jury found that Grace had negligently contaminated the wells. But U.S. District Judge Walter Jay Skinner threw out that verdict because of inconsistencies as to when the wells had become contaminated — a ruling that led to an \$8 million settlement with no admittance of wrongdoing on Grace's part.

The jury dismissed the charges against Beatrice, Grace's co-defendant. But a three-judge panel for the U.S. Court of Appeals for the First Circuit ruled in late 1988 that Beatrice's lawyers engaged in "misconduct" by failing prior to the trial to give Schlichtmann test results of which they had knowledge.

The court ordered Skinner to conduct hearings to determine the extent of that misconduct and whether it was "knowing or deliberate" on the part of Beatrice's lawyers. The first phase of those hearings was held in early 1989, and a second phase may take place in late 1989 or early 1990. A ruling on whether the families will be granted a new trial will probably not be made until some time in 1990.

What follows is the story of the toxic-waste trial and why it produced a muddled verdict that raised more questions than answers.

The East Woburn Environment

East Woburn, that portion of Woburn east of Main Street (Route 38), is a low, swampy area that has been heavily industrialized for the past century.

For decades Woburn's water had been obtained from six wells (known simply as A through F) drilled into the groundwater aquifer surrounding Horn Pond, located in the south-central portion of the city. But in the 1950s, as water became increasingly scarce, city officials began considering drilling wells in groundwater-rich East Woburn.

Some officials warned that the water obtained from such wells would be of poor quality. But the city moved ahead and drilled well G in 1964, near the east bank of the Aberjona River, south of Route 128 and north of Salem Street. Several years later the city drilled well H about 500 feet north of well G, even closer to the east bank of the river than well G.

Almost from the moment the new wells went on line, residents of East Woburn complained the water smelled and tasted bad. One neighborhood resident, Anne Anderson, went so far as to question whether the water might have caused the leukemia that her son, Jimmy, was suffering from. James Anderson, born July 16, 1968, was diagnosed with leukemia in January 1972. By the time he died on January 18, 1981, many observers believed Anne Anderson had been right. But during the 1970s most people dismissed her as a distraught mother groping for answers.

Repeated tests of wells G and H by local and state health officials showed the water was unpleasant but safe. Then, in 1976, a state official nearly stumbled on the truth. While testing an experimental instrument designed to detect ex-

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remely small quantities of organic solvent chemicals, he came across inexplicably high readings from wells G and H. But rather than explore the matter further he assumed the readings were wrong, and used them to calibrate the device.

The truth was finally learned in May 1979. Officials discovered that in a "midnight dumping" incident someone had ditched a large quantity of barrels several thousand feet north of the wells. The Massachusetts Department of Environmental Quality Engineering (DEQE) immediately tested the wells to determine whether the water had been contaminated. They found that the barrels had not leached their contents into the wells — but that the wells were contaminated with several chlorinated organic compounds, including trichloroethylene (TCE) and tetrachloroethylene, also known as perchloroethylene (PCE).

The wells were closed May 22 and have not been used as a source of drinking water since. The Metropolitan District Commission (now the Massachusetts Water Resources Authority) agreed to replace the lost water by connecting East Woburn to its regional distribution system.

The discovery of contaminants in the wells led to numerous community meetings and to the formation of FACE (For a Cleaner Environment). It also led to a series of studies that showed Woburn's leukemia rate was far higher than would be expected for a community of its size — and that most of the leukemia cases were among families who had received most of their water from wells G and H.

Six Woburn families — later joined by two additional families, one of whom now lives in Winchester — agreed to be represented by Jan Richard Schlichtmann, an attorney with the Boston firm of Reed & Mulligan. Of the scores of industries that could have potentially polluted the wells, Schlichtmann focused on three:

- W.R. Grace & Co., which owned and operated the Cryovac Division manufacturing plant at 369 Washington St., about 2,400 northeast of the wells. The Cryovac plant manufactured equipment for the food-packaging industry and used solvents to clean and cool tools, cut grease and dilute paint.

- Beatrice Foods Co., which in 1978 purchased the John J. Riley Co. tannery, 228 Salem St., and an adjacent 15-acre undeveloped property, from John J. Riley Jr., and sold them back to him in 1983. (Riley sold the tannery in 1985 to a group of longtime employees, who renamed the business Riley Leather Co. Citing pressure from foreign competition, the employees closed the doors of the tannery for good on January 1, 1989.) As a stipulation of Beatrice's agreement to resell the tannery to Riley in 1983, Beatrice retained legal liability for environmental matters. Northeast of the tannery was the 15-acre parcel, undeveloped land that the tannery had purchased in the 1950s for its water supply. Schlichtmann charged that groundwater beneath the 15 acres had become contaminated through activities at the tannery and by the dumping of chemicals on the surface of the 15 acres. From there, Schlichtmann alleged, chemicals flowed about 700 feet northeast into wells G and H.

- UniFirst Corp., which operated an industrial dry-cleaning business at 15 Olympia Ave., about 2,000 feet north of wells G and H. UniFirst used PCE as part of its business, and

tests on UniFirst property revealed large quantities of PCE in the soil and groundwater.

Pre-trial Maneuvering

The toxic-waste trial, *Anne Anderson, et al., v. W.R. Grace, et al.*, did not get underway until nearly four years after the suit was filed. Partly this was because of the delays inherent in the judicial system. Partly it was because of the massive scope of the case, which involved novel legal and scientific theories. The pre-trial discovery period, which included testing of groundwater and soil at the Grace, Beatrice and UniFirst properties, as well as the taking of scores of depositions from witnesses who might or might not be called to testify, was described by Judge Skinner and the lawyers involved as the most intensive in which they had ever been involved.

To get the case into the courtroom, Schlichtmann was assisted by Anthony Z. Roisman, an attorney with Trial Lawyers for Public Justice, a Washington-based public-interest law firm. According to a number of people connected with the suit, Roisman's work was crucial in persuading Skinner to schedule the case for trial.

The pre-trial period was also marked by an ugly dispute between Schlichtmann and Joseph I. Mulligan Jr., who was a senior partner at Reed & Mulligan at that time and is now corporation counsel for the City of Boston. In late December 1983 Schlichtmann left Reed & Mulligan to start his own firm, Schlichtmann, Conway & Crowley (now Schlichtmann, Conway, Crowley & Hugo), taking the *Anderson* case with him. On July 30, 1985, Mulligan filed suit in U.S. District Court, charging Schlichtmann and his partners had breached a fee-sharing contract they had signed when they left Reed & Mulligan.

Mulligan claimed he was entitled to one third of the legal fee — 11.1 percent of the total award, since the lawyers' fee was 33.3 percent of the award — granted to the six families who had originally hired him. Schlichtmann responded that Mulligan was properly discharged from the case by the families themselves, who were dissatisfied with his performance. But in the *Daily Times Chronicle* of October 28, 1986, Anne Anderson recalled that the families discharged Mulligan at Schlichtmann's insistence. "All we knew was there was a problem between them," she said. "Jan was very careful not to let us know what was going on."

Following months of charges and countercharges in U.S. District Court and Middlesex Superior Court, Schlichtmann settled with Mulligan for what one source said amounted to several hundred thousand dollars. The settlement came on February 12, 1986 — just six days before jury selection began in the toxic-waste trial. While it did not appear that the Schlichtmann-Mulligan dispute interfered with Schlichtmann's preparations for the trial, it was a distraction that could not have been helpful.

Meanwhile, one aspect of the case was quietly resolved during this period. In November 1985 UniFirst agreed to pay the families \$1.05 million without the case ever having reached a courtroom. Under the terms of the settlement, UniFirst did not admit any responsibility for contaminating the wells. An

unusual stipulation required the plaintiffs to use the entire settlement to finance their case against Grace and Beatrice.

The Trial Begins

Finally, in early 1986, the trial was ready to get underway. The judge was Walter Jay Skinner, Harvard Law '52, a 58-year-old Yankee Republican who had made his reputation two decades earlier as a prosecutor fighting corruption under Massachusetts Attorney General Edward Brooke. Skinner's efforts had put several members of the Governor's Council behind bars. His reward was that the council, led by its legendary chairman, Patrick "Sonny" McDonough, twice rejected Skinner when he was nominated for state judgeships. In 1973 his mentor, Brooke, by then a U.S. senator, prevailed upon President Nixon to appoint Skinner to the federal bench. Skinner had a reputation for fairness, integrity and patience. That last quality would be tested a number of times over the ensuing five months.

Skinner ruled that the trial would be divided into three phases. In the first phase, the plaintiffs would attempt to show that wells G and H had become contaminated as a result of actions by Grace and Beatrice, and that the contamination had occurred before the wells were closed in 1979. If the plaintiffs could not persuade the jury to issue a finding against either defendant, then the trial would be over. But if the jury ruled against one or both defendants, the trial would proceed to a second phase. In this phase, the plaintiffs would attempt to show that exposure to contaminated well water resulted in the leukemia cases and the other illnesses alleged in the lawsuit. If the jury found that the well water was not responsible for any illnesses, then the trial would end. But if the jury found that the water was responsible, the trial would move to a third phase, during which damages would be set.

Schlichtmann filed an objection, telling Skinner it was unfair that he would not be able to present his entire case at once. Because the first phase of the trial would be entirely technical — that is, the jurors would be asked to decide solely whether Grace and Beatrice had contaminated the wells prior to 1979, not whether any illnesses had resulted — the families would not testify at all unless there was a second phase. As potential witnesses, they would not even be allowed to attend court sessions, meaning the jurors would not see the people who brought the suit before rendering a verdict.

In the December 1986 issue of *The American Lawyer*, Harvard Law School professor Charles R. Nesson, who assisted the plaintiffs, complained that Skinner's decision took the "humanity" out of the first phase of the case. He also argued that evidence as to when the victims began suffering ill effects — which couldn't be brought in until the second phase — would have helped the jurors decide when the contaminants reached the wells, an issue in the first phase. Added Schlichtmann: "The jury [was] never in a position to evaluate the relevance of one piece of information over another because they didn't have the whole story."

In that same article, attorney Jerome P. Facher of the Boston firm of Hale and Dorr, Beatrice's chief trial counsel, responded: "You can't try a case for five months and say to a jury, 'Here's the whole mess. Now just go and decide, was the

defendant liable?' . . . There's no point in going into four months of medical evidence on contaminated water if the defendant didn't contaminate the water."

Jury selection began on Tuesday, February 18, 1986, and continued four hours a day, not including the weekend, until February 25. Seventy-six prospective jurors were interviewed in Skinner's chambers, with the press allowed to observe but forbidden to report on the proceedings until after the jury was selected. Finally, a jury of six regular members and six alternates was seated. Skinner said he chose such a high number of alternates because of the possibility that the trial would last a year and that some members would have to be excused.

Opening day of the trial, Monday, March 10, was one of the most dramatic of the case. More than 100 lawyers and media representatives jammed the 12th-floor courtroom for opening arguments. In front of Skinner, at the table closest to the bench, was the plaintiffs' legal team, led by Schlichtmann. Joining him were his partners at the law firm, Kevin P. Conway and William J. Crowley III; Nesson, whose area of expertise was the rules of federal evidence; and Thomas M. Kiley, of the Boston law firm of Herlihy & O'Brien.

Behind the plaintiffs' table, and slightly to the left, was Beatrice's legal team from Hale and Dorr, led by Facher. He was assisted by Neil H. Jacobs and Donald R. Frederico.

To Beatrice's right was the Grace legal team, from the Boston firm of Foley, Hoag & Eliot. The chief trial counsel was Michael B. Keating, assisted by Sandra Lynch, William Cheeseman and Marc Temin.

Schlichtmann, in his opening statement, said, "Woburn has had more than its share of sickness and death" — caused, he added, by "industrial waste that was dumped into the ground by companies that didn't care about the public health, companies that knew what they were doing was wrong but did it anyway."

Both Facher and Keating countered that their clients did not contaminate the wells — and that even if they had, the chemicals at issue in the trial did not cause leukemia or any of the other illnesses alleged in the families' complaint. (In addition to TCE and PCE, the chemicals named in the suit were 1,1,1-trichloroethane, or TCA; 1,2-trans-dichloroethylene, or DCE; and chloroform.)

Facher told the jurors that the Riley family purchased the 15-acre property in 1951 so they could drill a well on the property for the tannery's use. "Riley's own well was found to be contaminated, and Riley was a victim as much as anyone else," Facher said.

Added Keating: "Grace cares. All of us would like to find the answers to what causes leukemia and other cancers. [But] nothing Grace did caused these plaintiffs' illnesses."

Endless Testimony

Following the excitement of opening day, the trial quickly settled into a routine that was frequently mundane and sometimes mind-numbing. More than one juror was observed dozing off during the 78 days of trial. For that matter, Judge Skinner nodded out once or twice, as did the few members of

the press who followed the case on a daily basis. But there were several key portions that bear review.

The case against Beatrice: Skinner had decided the plaintiffs would proceed first against Beatrice. So on March 13 John C. Drobinski, a geologist employed by Weston Geophysical Corp., of Westborough, took the witness stand to begin more than a week of testimony.

Schlichtmann had hired Weston Geophysical to conduct tests on the Beatrice property during the summer and fall of 1985. Drobinski testified that he had found several of the five chemicals named in the complaint in groundwater on the property and in soil beneath a pile of debris on the property — and in various other locations as well. One contaminated area was near a piece of sludge that gave off a leather-like smell, Drobinski said, indicating it had come from the tannery.

Drobinski also displayed a series of poster-sized aerial photographs of the 15 acres taken during the 1950s, '60s and '70s. He testified that piles of debris and stacks of barrels and other containers seen in those photos were in the same location as the contamination he had observed in 1985. He added he had found newspapers, playbills and beer cans dating back to the mid-1960s in the main debris pile.

Over Facher's objections, and with the jury out of the courtroom, Skinner ruled that Drobinski was an expert witness who could be allowed to give his opinion as to when the wells had become contaminated. The judge reasoned that, although Drobinski had not used any scientific methods, he was a "specialist" whose profession required him to synthesize many types of knowledge. After the jury was brought back, Drobinski testified that he believed groundwater beneath the 15 acres became contaminated during the 1960s and '70s as a result of surface dumping.

Facher lost that particular battle, but when he began his cross-examination of Drobinski he showed how he had earned the reputation of being one of the most able trial lawyers in the country. Facher began by destroying Drobinski's academic credentials, forcing the hapless witness to admit he had twice lied under penalty of perjury when applying for jobs. Drobinski had told two prospective employers he had received his master's degree prior to actually earning that degree in 1979.

Facher then excoriated Drobinski for not considering other possible sources of contamination to the 15 acres, such as a sewer line running through the middle of the land that frequently overflows; the Aberjona River, which forms the property's eastern boundary and which also frequently overflows; a contaminated piece of land to the north of the 15 acres; and a waste-oil business, a barrel-recycling operation and an auto-body shop southeast of the 15 acres. He asserted that Drobinski had no evidence that the property was ever contaminated prior to 1985. Facher even produced records from the Massachusetts Land Court showing that the main debris pile on the 15 acres actually sat on a narrow strip of land owned by the City of Woburn — evidence Schlichtmann said he would refute, but never did.

Then, for comic relief, Facher sprayed numerous house-

hold substances into Drobinski's face that contained many of the chemicals named in the complaint. Drobinski declined Facher's request that he sniff the substances and Schlichtmann was enraged, but the jurors appeared to be amused — no small thing during a five-month trial.

Following Drobinski's testimony, Schlichtmann began a fruitless quest to show that the Riley tannery itself had contributed to the contamination of the 15-acre property. Walter Day, who grew up in East Woburn, testified that as a boy he and his friends played in the area and regularly observed tannery workers dump a whitish-gray powder into a drainage ditch that the children called "death valley." The contents of that drainage ditch allegedly washed up onto the 15 acres from time to time. But no one testified that the powder was anything other than what tannery officials claimed it was — harmless buffing dust. John Camertingo, a former employee of Whitney Barrel Co., located southeast of the 15 acres, said that during the late 1960s he had occasionally dumped liquid waste along a dirt road leading to the 15 acres. He said TCE was used to clean the barrels, but added the chemical was always used up and never disposed of.

Schlichtmann had no better luck with John J. Riley Jr., the former owner of the tannery; Edward J. Foley Jr., the company treasurer; or Edwin J. Kaine, the company's tanning engineer. The witnesses said the tannery had never used TCE, and had only used PCE for a brief period of time in a closed system that produced no waste. They said the tannery also used TCA to clean machinery, but added that the substance did not produce a waste product. Riley himself was vehement in defense of his tannery and his own conduct, saying the company had never used TCE and had never deliberately allowed the 15-acre property to be used as a dumping ground. "I was not aware that Whitney Barrel was dumping waste on our land, and if I was I would have stopped it immediately," he said. Schlichtmann was able to show, however, that Riley used a number of different chemicals that were purchased under trade names, and that Riley didn't know what those chemicals were.

Sixth plaintiff dies: On Saturday, April 12, a sixth plaintiff died. Roland L. Gamache, 39, the only adult leukemia victim among the plaintiffs, died from complications stemming from a bone-marrow transplant. "He just wasn't able to build up his defenses. He was a very brave man and had a very brave family," Schlichtmann told the *Daily Times Chronicle*.

The jury was never informed of Mr. Gamache's death.

The case against Grace: Schlichtmann's presentation against Grace was less eventful, mainly because present and former employees of the Cryovac plant admitted they used the property in the rear of the building as a dumping ground for chemical wastes.

During the questioning of numerous witnesses, Schlichtmann and Michael Keating, Grace's chief counsel, sparred over how much dumping had occurred on the site, whether plant supervisors were aware of the full extent of the dumping, and whether TCE use continued after the plant received a memorandum from Cryovac headquarters in South Carolina in 1974. That memo ordered that use of the chemical be

stopped for safety and environmental reasons.

Judge Skinner refused to allow Schlichtmann to introduce evidence that Schlichtmann said proved Grace lied to the U.S. Environmental Protection Agency (EPA) in 1982 about the extent of contamination on the site. That issue was before a federal grand jury at that time. (In late 1986 the grand jury handed down an indictment, charging Grace with two counts of providing false information to the EPA. Grace vehemently protested its innocence — but pleaded guilty to one count and paid a \$10,000 fine in a pre-trial settlement in June 1988.)

Pinder: On May 7 Dr. George F. Pinder, an internationally recognized expert on hydrogeology — the study of the underground movement of water — took the witness stand. Pinder, chairman of the civil engineering department at Princeton University, was Schlichtmann's star witness.

But Pinder bombed. When he began his testimony, the plaintiffs had a strong case against Grace and a weak but viable case against Beatrice. Following his 11 days of testimony, the case against Grace was damaged substantially — and the case against Beatrice was virtually nonexistent.

Pinder appeared to have done insufficient work in preparing his testimony and he appeared to tailor his testimony to fit Schlichtmann's needs. Once Facher and Keating saw that Pinder was wounded, they quickly moved in for the kill.

Pinder's basic testimony was that TCE dumped on the ground at the Cryovac plant would arrive at wells G and H, 2,400 feet to the southwest, approximately three years later. TCE dumped at the 15-acre Beatrice property would arrive at the wells, about 600 feet to the northeast, within about six months, he said. PCE, he added, travels underground about three times more slowly than TCE.

Facher and Keating hammered away at Pinder on a number of points. The witness was forced to recalculate the travel times of chemicals after admitting he had made a mathematical error. He was also accused of using insufficient data in reaching his conclusions about groundwater flow, of improperly measuring groundwater pressure gradients (an arcane subject that clearly confused the judge, the jury and the press) and of failing to take into account the influence of Riley's industrial well on the south end of the 15 acres, which Facher said would pull groundwater away from wells G and H.

But Pinder's downfall was the Aberjona River — the small, slow-moving, swampy stream that separates wells G and H from the Beatrice property. Pinder agreed with Facher that, when wells G and H are not in operation, groundwater beneath the Beatrice property would flow toward the southeast, away from the wells, and would eventually discharge into the river. But Pinder contended that, when the wells were pumping, they pulled groundwater beneath the 15 acres to the northeast, under the river and into the wells. He added that the wells drew little or no water from the river itself because the river bottom was covered with an impermeable layer of peat, and because

the water in the river was lower in elevation than the surrounding groundwater.

Facher then produced a report by the U.S. Geological Survey (USGS) based on the results of a pumping test of the wells conducted in December 1985 and early January 1986. The report stated that, when the wells were turned on, the river lost 600 gallons of water per minute — in other words, 864,000 gallons a day. When Facher asked him to explain that fact, Pinder replied he had thought about it for quite awhile, but had only recently arrived at an explanation — "while in the shower." The answer, Pinder said, was that the groundwater aquifer that discharges into the river was discharging less water when the wells were turned on — specifically, 600 gallons a minute less. He insisted that the answer that might be most obvious to a layperson — that water was leaving the river and traveling to the wells — was incorrect.

Keating also questioned Pinder, and argued that the wells may have become contaminated by drawing water from the river, which has a 100-year history of industrial pollution. But Pinder replied the chemicals at issue in the trial evaporate rapidly. He added that once the wells were turned on it would take 10 to 20 years before any river water would enter the wells.

For a week Pinder tried to defend his theory, but it was all over. The day after his explanation about the river, with the jury out of the courtroom, Judge Skinner openly disparaged Pinder's testimony as "a morning-shower epiphany of some kind." When Schlichtmann protested that the

river was not important to the case, Skinner replied testily, "It's as important as all get-out. It makes a hell of a lot of difference as to what went in there [wells G and H]."

In fact, in October 1986, after the conclusion of the trial, the EPA released a report that contained a finding by the USGS that the wells drew 40 percent of their water directly from the Aberjona River. On February 4, 1987, following a lecture at MIT, Pinder told the *Daily Times Chronicle* that he stood by his testimony despite the USGS's finding. "River water will not get to the wells for a very long time, but the river responds to the pumping of the wells almost instantaneously. It's a very difficult concept to understand," he said.

In an October 1986 document Judge Skinner characterized Pinder's testimony as "seriously flawed ... by his failure to account for loss of water from the river during pumping."

But Pinder told the *Times Chronicle*, "As a technician, that's how I interpreted it. That's all I was able to do. I'm sorry I wasn't able to communicate that to the judge."

Skinner narrows case: Following Pinder's final day of testimony May 29, lawyers for Beatrice and Grace filed motions asking Skinner to direct a verdict of nonliability for both defendants. Skinner refused, but on June 4 he did significantly narrow the plaintiffs' case.

First, Skinner dropped the chemical chloroform from the case against both defendants, and the chemical TCA from the

case against Grace. Schlichtmann did not object, since TCE and PCE were clearly the pollutants that were at the heart of his case.

Next, regarding Grace, Skinner ruled out any evidence of dumping prior to 1964, the year well G first went on line. Despite Schlichtmann's protest, Skinner said Grace could not be held liable for polluting a well that did not exist. In a ruling more to Schlichtmann's liking, the judge said Grace could be held to a standard of "strict liability" — that is, the jurors could find Grace liable for polluting the wells even if they did not find Grace acted negligently. Skinner based that decision on his opinion that the dumping admitted to by present and former Cryovac employees was an "abnormally dangerous" or "ultrahazardous" activity, the legal threshold for applying strict liability.

But Skinner's ruling on the Beatrice portion of the case devastated the plaintiffs' case.

First, he ruled that the jury would not be allowed to consider evidence that the tannery itself may have contributed to the contamination of the 15 acres. The judge reasoned that Schlichtmann had not presented any evidence that met the minimal standards for admission.

Second, Skinner ruled Beatrice could not be held to the strict-liability standard because the plaintiffs' evidence did not demonstrate "a purposeful placing of material on the 15-acre property."

Third, he ruled the jury would not be allowed to consider any evidence of dumping at the 15 acres before August 27, 1968. That was when Riley received a letter from Denis Maher, a Woburn well driller, stating the level of Riley's industrial well on the 15 acres was dropping, probably because of the action of nearby municipal wells. Skinner said that, prior to receiving the letter, there was no way that Riley could have foreseen that groundwater on his property flowed toward wells G and H, because the property is downstream from the wells and on the opposite side of the Aberjona River. Unfortunately for the plaintiffs, most of the evidence Schlichtmann had presented concerning dumping at the 15 acres dated from the early and mid-1960s.

A year later, in a brief filed with the U.S. Court of Appeals for the First Circuit, Schlichtmann and Nesson said Skinner's ruling "cut the heart out" of their case against Beatrice and "left but a remnant of the plaintiffs' case to go to the jury." The brief called the Maher letter a "seemingly innocuous letter [that] was to become the linchpin of the trial judge's [Skinner's] directed verdict rulings against the plaintiffs."

Beatrice presents its case: Although Facher's and Keating's strategy was to rely principally on cross-examination of Schlichtmann's witnesses, they each presented witnesses of their own following Skinner's rulings on their motions for a directed verdict.

Facher presented three witnesses, all of whom were ineffective. Fortunately for him, Pinder had already virtually guaranteed that the families would not win their case against Beatrice.

The first witness, Dr. Olin C. Braids, a geochemist employed by the Tampa, Fla., office of the engineering firm of

Geraghty & Miller, testified that microbes naturally present in wet soil break down PCE successively into TCE, DCE and, finally, vinyl chloride. He said that any PCE dumped at the Beatrice site would break down into vinyl chloride in no more than six years — meaning that the property must have become contaminated at least several years after wells G and H were shut down. Schlichtmann offered a perfunctory cross-examination, but Braids's testimony was so esoteric that it didn't appear to influence the jury one way or the other.

Beatrice's next witness was Thomas Mernin, Woburn's city engineer. As one of the top officials responsible for water in the city, Mernin said the water was tested regularly for bacteria and minerals. He added he believed the water was safe and both he and state officials assumed groundwater beneath the Beatrice property would drain into the Aberjona River, downstream from the wells. Therefore, Mernin testified, officials never considered the Beatrice property to be a potential threat to the wells.

But on cross-examination, Schlichtmann pointed out that city and state officials were concerned enough about the May 1979 barrel-dumping incident — 3,000 feet north of the wells — to immediately test the well water. Schlichtmann suggested that, if Beatrice or Grace had informed city and state agencies that there were chemicals on their properties, tests of the wells would have been ordered and the contaminants might have been found sooner.

Ironically, Mr. Mernin, a resident of East Woburn, died of leukemia in 1987.

Beatrice's third witness, Ellis Koch, a Geraghty & Miller hydrogeologist, was totally unpersuasive. To counter Pinder's testimony, Koch stated that when wells G and H were turned on, the water in the Aberjona River formed a ridge that acted as a barrier. In other words, the river water was higher than the surrounding groundwater, rather than lower, as Pinder had testified. Groundwater west of the ridge — including that beneath the Beatrice property — flowed from east to west, away from the wells, when the wells were pumping, Koch said.

On cross-examination, Schlichtmann quickly showed that Koch was talking only about groundwater pressure gradients in that portion of the water table nearest the surface. Further down, near bedrock, those gradients reversed, according to USGS pumping data. Schlichtmann said that allowed groundwater to flow from west to east, beneath the river and into the wells. Koch angrily — but ineptly — defended his theory. Later on, Grace's own hydrogeological witness would rebut Koch's testimony.

Grace's turn: Keating presented a more impressive case than Facher had, which reflected the fact that he was pursuing a different strategy. Keating and his associates were content to let Facher take the lead in bashing Schlichtmann's witnesses on cross-examination. But Keating, in making his own case, presented an alternate theory of how wells G and H became contaminated.

On June 16 Stephen P. Maslansky, president of Geo Envi-

ronmental Consultants Inc., of White Plains, N.Y., took the stand. Maslansky was retained by Grace to study the extent of contamination at the Cryovac site. Maslansky testified that between five and 100 gallons of organic chemicals, including TCE, were present in groundwater beneath the property, and that the chemicals were flowing off the site, to the southwest — in the direction of wells G and H — at the rate of one to five gallons a year. He added that virtually no PCE could be detected on the property. Under cross-examination, Maslansky told Schlichtmann he couldn't say whether the chemicals that left the site had arrived at the wells because he hadn't been hired to answer that question.

Keating next presented documents and witnesses in an attempt to prove that the Aberjona valley had been heavily polluted for decades by a number of industries north — upstream — of the wells.

Alfred DeFeo, an engineer who studied the river as part of a master's degree project at Tufts University, testified that, in 1971, National Polychemical Co. in Wilmington (later renamed Olin Chemical Co.) was regularly dumping into a swamp a malodorous, highly acidic, reddish-orange waste product with floating "sludgy black scum."

Other sources of contamination identified in the 1971 study, he added, were E.C. Whitney Co., a barrel-cleaning firm in Wilmington; Raffi & Swanson, a Wilmington chemical plant that manufactured inks and glues; International Minerals of Woburn (now New England Pigments and Resins); Woburn Barrel Co.; and the city dump off Merrimac Street. (Although there is a family connection, E.C. Whitney Co. is a separate entity from Whitney Barrel Co., of Woburn.)

All these properties discharged waste into a drainage ditch that ran south along the Boston and Maine railroad tracks and into Hall's Brook, which is a tributary to the Aberjona River, DeFeo said. He added that a follow-up investigation in March 1986 showed Raffi & Swanson, E.C. Whitney, Olin Chemical, Woburn Barrel and the city dump were continuing to discharge waste into the ditch.

Robert Cady, a supervising sanitary engineer with the Massachusetts Division of Water Pollution Control, studied sources of pollution to the river in 1970 and conducted follow-up studies through 1977. Under questioning by attorney Sandra Lynch, Keating's principal assistant, Cady identified two additional sources of pollution to the river — Anderson Foreign Motors of Woburn and the Industri-Plex 128 hazardous-waste site in North Woburn.

The Industri-Plex property, fifth on the EPA's national priority cleanup list, is contaminated with lead, arsenic and chromium lagoons and by gas-emitting hide piles. Groundwater at the site is polluted with benzene and toluene. Benzene is a proven leukemia-causing agent. Although EPA officials believe there is no connection between the Industri-Plex site and the East Woburn aquifer, Cady said that during the 1970s waste may have flowed into Mishawum Lake (which has since been drained) and from there made its way into Hall's Brook.

The testimony by Maslansky and the engineers who had studied the Aberjona valley set the stage for Keating's most important witness — Dr. John H. Guswa, vice president of Geo Trans, of Foxborough, a hydrogeologist retained by Grace

to counter Pinder's testimony.

On his first day on the witness stand June 23, Guswa directly contradicted Pinder. Guswa said the nature of glacial rock deposits in East Woburn made it impossible for chemicals at the Cryovac plant to have contaminated wells G and H. "Even if the chemicals were released to the groundwater system in 1960, the day the plant opened, they could not have reached the wells by May of 1979," he asserted. The rocky deposits, crushed beneath the weight of a 6,000-foot-high glacier during the Ice Age, are so impermeable that contaminated groundwater moves through it very slowly, he said.

The next day, Guswa went after the weakest part of Pinder's testimony by asserting that 50 percent of the water in wells G and H would be drawn directly from the Aberjona River after several months of continuous pumping. When Judge Skinner pointed out that only well G was used during much of the 15-year period at issue, Guswa replied that would change his calculations by no more than a few weeks.

Guswa said the layer of peat at the bottom of the river, which Pinder testified acted as a barrier, is "probably more permeable than the silty sand that lies beneath the river." The permeability of the peat would have to be "comparable to concrete" for Pinder to be correct in his assertion that it would take at least 10 years of continuous pumping before any river water would enter the wells, Guswa added.

(The jurors had no way of objectively deciding whether Pinder or Guswa was right. But in October 1986, as has already been mentioned, the EPA announced that the USGS believed 40 percent of the water in the wells was drawn directly from the river, basically confirming Guswa's findings. Guswa, who attended that EPA meeting in Woburn City Hall, told the *Times Chronicle* he was confident his 50-percent figure was more accurate.)

Guswa pointed to several possible sources of contamination to the wells: (1) industrial contaminants dumped into a drainage ditch that flowed into the Aberjona River, as described by previous witnesses; (2) groundwater flowing parallel to the river, which could have been polluted by the same industries that polluted the river water; (3) flooding of the sewer system, which he said had occurred on several occasions; (4) severe flooding of the Aberjona River that occurred in January 1979, which could have washed chemicals from drainage ditches and lagoons into the wells; (5) sources of contaminated groundwater near the wells, such as the former Hemingway Transportation property, directly north of the Beatrice site, and several other industries in the area.

Under cross-examination by Schlichtmann, Guswa readily agreed that groundwater west of the Aberjona River would flow east, toward the wells, when the wells were pumping. That directly contradicted the testimony of Ellis Koch, Beatrice's hydrogeologist, who said the river would act as a groundwater divide. But Guswa added he could not say specifically whether groundwater beneath the Beatrice property would flow into wells G and H. He explained that, since his client was Grace, he did not take sufficient measurements to show whether groundwater at the Beatrice site would flow

northeast toward wells G and H or southeast toward the industrial well at the southern end of the property.

By using Guswa to discredit Koch, Schlichtmann had drawn blood, and he followed it up with his most effective cross-examination of the trial. Taking rainfall measurements and Guswa's calculations of soil permeability and groundwater flow, Schlichtmann asserted that Guswa's permeability figure must be two to three times too low — otherwise, Schlichtmann said, the Cryovac property would lie under 10 feet of water.

Guswa replied that Schlichtmann had made a mistake by assuming that all the groundwater would be contained in layers of soil above the bedrock. Some of it, Guswa explained, was actually in the bedrock. Schlichtmann retorted that, if that were true, contaminated water could flow along cracks in the bedrock much faster than it could through the compacted soil above the bedrock. Guswa disagreed, but Schlichtmann appeared to have gotten the better of that exchange.

Schlichtmann also presented data that he said showed the river was not a likely source of contamination to wells G and H. He said studies showed TCE concentrations were greater in deeper portions of the aquifer than they were in shallow portions, which would be impossible if the river were the source. He added that TCE concentrations were greater near wells G and H than they were further to the north, where the industries Guswa and others had identified were located.

Guswa was visibly angered by Schlichtmann's line of questioning. He told the lawyer that he was oversimplifying the problem, and that there were clearly numerous sources of contamination in the valley. Even using solvents to clean guns at a nearby rifle range or pouring TCE into septic systems (a common practice during the 1960s) in a neighborhood between the Cryovac property and the wells could have polluted the aquifer, he said.

Although Guswa performed far better on the stand than his counterpart, Pinder, Schlichtmann was able to cast at least some doubt on his testimony. That may have been a key to the plaintiffs' winning a partial victory against Grace.

Prelude to a Verdict

On July 1 the six jurors and five alternates (one of the jurors had dropped out halfway through the testimony, and an alternate was promoted to take her place) finally were given the opportunity to view the properties that lawyers, scientists and witnesses had been discussing for 71 days. The jury departed from the federal courthouse by bus on that hot, sunny morning, accompanied by Judge Skinner and lawyers for the three parties. At Keating's insistence, the two reporters who were covering the trial on a daily basis were not allowed to travel with the jurors. The reporters followed — and at one point lost — the jurors as they were bused around the area.

The day was uneventful. The jurors looked at what remained of wells G and H, the 15-acre Beatrice property, the Riley tannery property, the Cryovac manufacturing plant, and several sites north of the wells, including the Olin Chemical plant in Wilmington.

The biggest controversy was an attempt by Schlichtmann to persuade Skinner to require the jurors to wear protective

gear on the 15 acres. Skinner refused, and Jerome Facher and Neil Jacobs, the Beatrice attorneys, grumbled that Schlichtmann was trying to instill fear in the minds of the jurors.

Schlichtmann and his colleagues accused Grace officials of playing their own psychological games. The Cryovac property was lavishly landscaped, and the jurors were shown employees' vegetable gardens behind the factory. Grace's lawyers said the land had merely been restored to the appearance it had had before the extensive digging that had taken place in order to test soil and groundwater.

During the tour, an action that Mayor John W. Rabbitt had taken several months earlier came back to haunt the plaintiffs. With national media attention focusing on Woburn because of the trial, Rabbitt ordered city workers to knock down the well houses at wells G and H to dramatize the fact that the city no longer used contaminated drinking water.

But Skinner had ruled that in order for Beatrice to be held negligent, the plaintiffs would have to show that the owners of the 15-acre property should have foreseen that dumping chemicals on the ground could pollute the wells. Central to deciding that issue was whether the well houses could be seen from the 15 acres. Because of Rabbitt's action, that question could not be answered.

Closing arguments: Judge Skinner's courtroom was steamy and packed the morning of July 14, when the lawyers were scheduled to make their closing arguments. Facher, Keating and Schlichtmann — in that order — said nothing that was new to the jurors, but they took seriously their final chance to put their own spin on what had happened the preceding five months.

For instance, Grace attorney Michael Keating compared George Pinder's testimony on the Aberjona River to "a bad piece of meat at the top of a can of beef stew — you are under no obligation to fish around any further." And Beatrice attorney Jerome Facher characterized Pinder's theory that groundwater beneath the Beatrice site changes direction and flows under the river and into wells G and H when the wells are turned on as "bizarre" and "contrary to nature."

Schlichtmann ended his argument on a literary note. Some months earlier, state Representative Nicholas A. Paleologos, a Woburn Democrat and a part-time theatrical producer, had shown Schlichtmann a 100-year-old play by Henrik Ibsen called *Enemy of the People*, about a fictional tannery that pollutes a village's water supply. Schlichtmann read from that play: "Expediency turns justice and morality upside down until life here just isn't worth living." Schlichtmann concluded by asking the jury to set aside expediency in favor of justice and morality.

Judge gives charge to jury: If the eloquence of Messrs. Facher, Keating and Schlichtmann had been somewhat entertaining for the jurors, Judge Skinner's charge, delivered the next day, came like a slap in the face. Because the judge gave them a task that several jurors later said was impossible.

Skinner told the jurors that, after extensive negotiations

with the lawyers, he had put together a questionnaire they would be required to answer. Rather than simply finding whether Beatrice and Grace had contaminated wells G and H, the jurors were to decide whether specific chemicals had been dumped, when the chemicals had been dumped, and when they contaminated the wells.

The Trial Ends

The jurors trudged off to begin their deliberations on Tuesday, July 15, with orders to deliberate from 9 a.m. to 5 p.m. each weekday. They were not sequestered, although Judge Skinner reminded them of their obligation to not read or to talk about the case with anyone.

The deliberations, as observers later learned, broke down almost immediately. On the eighth day, Thursday, July 24, the three-man, three-woman jury reported that it could not reach a unanimous verdict on the first of the four questions. Skinner told the jurors he would not declare a mistrial instructed them to consult with their fellow jurors and to take their opinions into account, as long as doing so would not violate their own beliefs.

A short time later the foreman, Quincy resident William Vogel, a Nynex supervisor, asked to be excused because of pending coronary bypass surgery. Skinner said he would grant Vogel's request if the jury had not reached a verdict or was not close to one by Monday, July 28.

The deadlock was apparently broken quickly, because the jurors walked into the courtroom Monday morning to announce they had reached a verdict.

To the surprise of virtually no one, the jurors dismissed the case against Beatrice, answering "no" to all four chemicals in the first question of the interrogatory.

The jurors' answer regarding Grace was more complicated. They answered "yes" to the first question concerning trichloroethylene (TCE) and tetrachloroethylene (PCE), and "no" concerning 1,2-trans-dichloroethylene (DCE). They answered "not determined" to the second question, which concerned when Grace first began making a "substantial contribution" to the contamination of wells G and H. The third question, whether Grace

Judge Skinner's Questionnaire

SPECIAL INTERROGATORIES TO THE JURY AS TO W.R. GRACE

1. Have the plaintiffs established by a preponderance of the evidence that any of the following chemicals were disposed of at the Grace site after October 1, 1964 and substantially contributed to the contamination of Wells G and H by these chemicals prior to May 22, 1979?

- | | | |
|-------------------------------|-----|----|
| (a) Trichloroethylene | Yes | No |
| (b) Tetrachloroethylene | Yes | No |
| (c) 1,2 Transdichloroethylene | Yes | No |

If you answered "No" to all these chemicals, you need not proceed further.

2. If you have answered "Yes" in question 1 as to any chemical(s), what, according to the preponderance of the evidence, was the earliest time that such chemical(s) disposed of on the Grace site after October 1, 1964 made a substantial contribution to the contamination of Wells G and H?

- | | | |
|-------------------------------|-------|-------|
| | Month | Year |
| (a) Trichloroethylene | _____ | _____ |
| (b) Tetrachloroethylene | _____ | _____ |
| (c) 1,2 Transdichloroethylene | _____ | _____ |

(If, on the evidence before you, you are unable to determine by a preponderance of the evidence the appropriate date, write "ND" for Not Determined.)

3. If you have answered "Yes" in question 1 as to any chemical(s), please answer the following question:

Have the plaintiffs established by a preponderance of the evidence that the substantial contribution to the contamination of Wells G and H by chemicals disposed of on the Grace site after October 1, 1964 was caused by negligence of Grace, that is, the failure of Grace to fulfill any duty of due care to the plaintiffs — with respect to

- | | | |
|-------------------------------|-----|----|
| (a) Trichloroethylene | Yes | No |
| (b) Tetrachloroethylene | Yes | No |
| (c) 1,2 Transdichloroethylene | Yes | No |

(Only answer with respect to a chemical as to which you answered "Yes" on question 1.)

4. If you have answered "Yes" to any part of question 3, what, according to a preponderance of the evidence, was the earliest time at which the substantial contribution referred to in question 3 was caused by the negligent conduct of the defendant — with respect to

- | | | |
|-------------------------------|-------|-------|
| | Month | Year |
| (a) Trichloroethylene | _____ | _____ |
| (b) Tetrachloroethylene | _____ | _____ |
| (c) 1,2 Transdichloroethylene | _____ | _____ |

SPECIAL INTERROGATORIES TO THE JURY AS TO BEATRICE FOODS

1. Have the plaintiffs established by a preponderance of the evidence that any of the following chemicals were disposed of at the Beatrice site after August 27, 1968 and substantially contributed to the contamination of Wells G and H by these chemicals prior to May 22, 1979?

- | | | |
|-------------------------------|-----|----|
| (a) Trichloroethylene | Yes | No |
| (b) Tetrachloroethylene | Yes | No |
| (c) 1,2 Transdichloroethylene | Yes | No |
| (d) 1,1,1 Trichloroethane | Yes | No |

If you have answered "No" to all these chemicals, you need not proceed further.

2. If you have answered "Yes" in question 1 as to any chemical(s), what, according to the preponderance of the evidence, was the earliest time after August 27, 1968 that such chemical(s) disposed of on the Beatrice site made a substantial contribution to the contamination of Wells G and H?

- | | | |
|-------------------------------|-------|-------|
| | Month | Year |
| (a) Trichloroethylene | _____ | _____ |
| (b) Tetrachloroethylene | _____ | _____ |
| (c) 1,2 Transdichloroethylene | _____ | _____ |
| (d) 1,1,1 Trichloroethane | _____ | _____ |

(If, on the evidence before you, you are unable to determine by a preponderance of the evidence the appropriate date, write "ND" for Not Determined.)

3. If you have answered "Yes" in question 1 as to any chemical(s), please answer the following question:

Have the plaintiffs established by a preponderance of the evidence that the substantial contribution to the contamination of Wells G and H by chemicals disposed of on the Beatrice site after August 27, 1968 was caused by negligence of Beatrice, that is, the failure of Beatrice to fulfill any duty of due care to the plaintiffs — with respect to

- | | | |
|-------------------------------|-----|----|
| (a) Trichloroethylene | Yes | No |
| (b) Tetrachloroethylene | Yes | No |
| (c) 1,2 Transdichloroethylene | Yes | No |
| (d) 1,1,1 Trichloroethane | Yes | No |

(Only answer with respect to a chemical as to which you answered "Yes" on question 1.)

4. If you have answered "Yes" to any part of question 3, what, according to a preponderance of the evidence, was the earliest time at which the substantial contribution referred to in question 3 was caused by the negligent conduct of the defendant — with respect to

- | | | |
|-------------------------------|-------|-------|
| | Month | Year |
| (a) Trichloroethylene | _____ | _____ |
| (b) Tetrachloroethylene | _____ | _____ |
| (c) 1,2 Transdichloroethylene | _____ | _____ |
| (d) 1,1,1 Trichloroethane | _____ | _____ |

had acted negligently, was answered in the affirmative. And the fourth question, which asked when Grace first began making a "substantial contribution" to the contamination as a result of its negligence, was answered "September 1973" for TCE and "not determined" for PCE.

While Facher was delighted, lawyers for Grace and for the families were in a quandary. Schlichtmann told reporters he was "bitterly disappointed," and well he might have been — three of the eight leukemia cases, including two that ended in death, were diagnosed before September 1973. Keating, speaking for Grace, said he was "not necessarily surprised but a little disappointed."

Perhaps the biggest problem was that the lawyers had to prepare for a second phase of the trial without really knowing what the jury was saying. The jury said it didn't know when water contaminated by Grace first reached wells G and H, but it did know when water contaminated by Grace's negligence first reached the wells — September 1973.

The jury apparently believed that, at some point, Grace officials received information that should have put them on notice to stop dumping. Lawyers for both sides made unsuccessful attempts to backdate from September 1973 to determine what event the jurors believed should have put Grace on notice. Pinder had testified that TCE would flow from the Grace property to the wells in three years. But no one could point with confidence to an event in September 1970 that should have put Grace on notice — although attorney Stanley W. Eller, an associate of Schlichtmann's, noted that Cryovac officials received a handwritten memorandum from corporate headquarters during that month on the dangers of TCE. Guswa, Grace's hydrogeologist, had testified that even if TCE had been dumped on the Grace property in 1960, the chemical would still have not reached the wells. Obviously the jury did not rely on that testimony in reaching the September 1973 date.

Because of those seeming inconsistencies, Keating filed a motion with Skinner asking that he dismiss the suit or grant a new trial. Keating said in an interview he believed the jury misunderstood the fourth question and was instead answering when it believed negligent conduct began. That's because, in September 1973, the Cryovac plant received a memorandum from Grace headquarters directing it to phase out the use of TCE because of health and regulatory concerns. Under that interpretation, the earliest date negligently dumped TCE could have reached the wells would have been September 1976, less than three years before the wells were closed, and after four of the eight leukemia cases had already been diagnosed.

A Settlement Is Reached

As it turned out, Skinner's ruling on Keating's motion would be anticlimactic. When the trial resumed on Monday, September 21, Skinner told the jury that he had some bad news and some good news. The bad news was that he had decided to order a new first-phase trial for Grace rather than move on to the second phase. He cited the inconsistencies in the verdict as to when the wells became contaminated as his reason for ordering a new trial. The good news was that Grace and the families had reached an out-of-court settlement, bringing the trial to a close.

Although both sides were forbidden to discuss the terms, they quickly became known — about \$8 million to be shared by the eight families. Also to share in the settlement were five other families represented by Schlichtmann who had sued in Middlesex Superior Court, and whose case against Grace had

not yet come to trial. Since at least half of the money was expected to go to legal expenses and fees, each of the 13 families could count on receiving not much more than \$300,000.

As expected, both lawyers proclaimed victory. "We're very, very pleased with the result. It's a triumph for the families," Schlichtmann said outside the courtroom. But Keating, at a news conference at Foley, Hoag, retorted, "The settlement agreement specifically states that there is no admission of guilt by W.R. Grace." Schlichtmann later denied that there was any such statement in the agreement. And Anne Anderson told reporters at a news conference at Trinity Episcopal Church in Woburn: "The words aren't necessary. The settlement speaks for itself."

With reporters finally free to question jurors, it quickly became apparent how thoroughly confused they were. Juror Robert Fox of Marblehead, a painting contractor, told the *Times Chronicle* the jurors believed September 1973 was the date by which there was sufficient contamination on the Grace site to pose a threat to the two wells. But he added the jurors had no idea when the chemicals got to the wells, except that they had gotten there by the time the wells were closed in 1979. That evening, jurors Jean Coulsey of Norton, a part-time forklift operator, and Harriett Clarke of Pembroke, a church organist, said in telephone interviews that they couldn't remember what the September 1973 date pertained to. "Honest to goodness, I cannot answer that question, to be truthful. Throwing dates in there really confused us all," Clarke said.

Jurors later told reporter Mitchell Pacelle of *The American Lawyer* the written interrogatories made it impossible for them to perform their duty. Pacelle wrote: "[I]nterviews with five of the six jurors reveal that it wasn't the trial testimony that was too complicated. Rather, Judge Skinner had simply

'We're very, very pleased with the result. It's a triumph for the families.'

**— Plaintiffs' attorney
Jan Schlichtmann**

'The settlement agreement specifically states that there is no admission of guilt by W.R. Grace.'

— Grace attorney Michael Keating

'The words aren't necessary. The settlement speaks for itself.'

— Anne Anderson

failed to write the jury interrogatories in plain English. One question [the fourth and final question] was so incomprehensible that all six jurors completely misunderstood it."

Beatrice Verdict Appealed

Although the settlement brought the national focus that had been on the case to a close, the legal issues were far from over — and have still not been resolved. As soon as the trial ended, Schlichtmann began an effort to overturn the verdict that dismissed Beatrice from the case and to win a new trial against Beatrice.

The first volley was fired October 2 by Judge Skinner, who wrote a final order dismissing Beatrice that was scathing in its criticism of Schlichtmann's case. Skinner wrote that if the jury had not dismissed the suit against Beatrice, he would have done so himself because of the testimony of George Pinder and John Drobinski.

"Dr. Pinder's testimony," the judge stated, "was seriously flawed ... by his failure to account for loss of water from the (Aberjona) river during pumping [of wells G and H]. ... Under the rules placing the burden of proof on the plaintiffs, I am obliged to find against the plaintiffs on this point."

In addition, Skinner said he had erred when he ruled that Drobinski should be allowed to testify as to when he believed the Beatrice property had become contaminated. Prior to Drobinski's testimony, Skinner had ruled the geologist was a "specialist" who could be allowed to state his expert opinion based on various dating techniques — historical aerial photographs and objects he found in debris piles. But the judge said he changed his mind after touring the property with the jury July 1:

"It was clear that there was nothing about the site which made it more probable that the chemicals were dumped before 1979 than after, any time up to the point when the EPA required partial fencing of the property in the early 1980's. Early aerial photographs showed empty barrels on the site in quantity, but there was no evidence as to what, if anything, was in them."

Schlichtmann struck back approximately a month later, filing an appeal in the U.S. Court of Appeals for the First Circuit, in Boston, challenging 10 rulings made by Skinner between December 27, 1985, and October 2, 1986. The challenged actions ranged from rulings that excluded evidence to orders aimed at speeding up the pretrial discovery process.

Schlichtmann followed up in June 1987 with a 60-page brief, written largely by Charles Nesson, the Harvard Law School professor, outlining the reasons for the appeal. The brief accused Skinner of "cutting the heart out" of the families' case against Beatrice. Specifically, Nesson argued that Skinner's decision to eliminate all evidence of dumping prior to August 27, 1968, "left but a thin remnant of the plaintiffs' case to go to the jury." The brief also stated that Skinner should have held Beatrice to a standard of "strict liability" — that is, that Beatrice should have been liable for wastes dumped on the 15-acre property regardless of whether tannery officials acted negligently. Finally, Nesson argued that Beatrice had a duty to clean up the 15 acres and to inform public officials of the condition of the land, and that the company should have

been held liable for not having done so.

Nesson also blasted Skinner's final order of October 2, 1986, charging that it was little more than an attempt to protect himself during the appeals process:

"If Judge Skinner's pronouncement is treated as a ruling by this court then all trial judges will be well-advised to insulate their trials from appellate review by making similar post-verdict retroactive evidentiary pronouncements in favor of the party who wins the verdict."

The families' brief was buttressed several weeks later when state Attorney General James M. Shannon and Middlesex District Attorney L. Scott Harshbarger filed a 19-page *amicus curiae* ("friend-of-the-court") brief supporting Schlichtmann. According to the Shannon-Harshbarger brief, Skinner's "overly narrow interpretation of common law theories of negligence, strict liability and public nuisance in this case could set precedent adverse to the effective enforcement of environmental laws by public authorities."

Following several extensions granted by the court, Beatrice submitted its response to the appeal in September 1987. The 73-page brief, written mainly by Facher, said that "[t]he plaintiffs' purported statement of fact misuses, mischaracterizes or misstates the evidence, uses material wholly outside the record and improperly relies on documents excluded from the evidence." Facher contended that Skinner acted within the law when he ruled in his final order that Pinder's testimony was "inaccurate, inadequate or incomplete."

Beatrice could not be held to a standard of strict liability, the brief added, because Schlichtmann had not shown that the tannery disposed of any of the four chemicals at issue on the 15 acres. (Skinner had ruled that Grace could be held to a standard of strict liability because of evidence that Cryovac employees had dumped chemicals on the ground. In the absence of any similar evidence regarding Beatrice, Skinner had ruled Schlichtmann would have to show that Beatrice negligently allowed others to dump on the 15 acres in order to be found liable.)

Facher also criticized Shannon and Harshbarger's *amicus* brief, stating that it "ignores the specific findings of the judge and jury and assumes that the tannery either disposed of complaint chemicals or knowingly permitted others to do so. These assumptions are untrue and unsupported by any evidence."

Families charge Beatrice cover-up: It appeared that the next step would be oral arguments before the Court of Appeals, followed by a ruling as to whether the families should receive a new trial. But, in early October 1987, Schlichtmann dropped another bombshell, charging that Beatrice had deliberately withheld evidence from him before the trial and that Judge Skinner should therefore grant a new trial without waiting for the appeals court to render a decision.

Schlichtmann charged lawyers for Beatrice and for John J. Riley Jr., the former owner of the tannery, "lied" and "covered up" the existence of a report prepared in 1983 by Yankoe Environmental and Engineering Research Services Inc., of

Woburn, that showed the tannery itself may have contributed to the contamination of the 15 acres. The Yankee study was performed for Riley shortly after he purchased the tannery back from Beatrice.

That charge brought a swift retort. Riley's lawyer, Mary K. Ryan, of the Boston firm of Nutter, McClennen & Fish, stated in a deposition that she acted properly in not turning over the report and a 1985 follow-up report because Riley was not a party to the lawsuit and because of "the attorney-client privilege and/or the work product immunity." Beatrice, in a document filed with Skinner, refers to Schlichtmann's allegation as an "unsubstantiated and reckless charge, unsupported and unsupportable by any evidence or affidavit. ..."

Schlichtmann pointed to several parts of the Yankee report that might have changed the outcome of the case if it had been made available to him during pre-trial discovery:

- Yankee found sludge on tannery property that was apparently tannery waste. Schlichtmann said that, had Skinner known of such a finding, he probably would have allowed the plaintiffs to test the sludge to see if it was similar to contaminated sludge found on the 15 acres.

- TCE, DCE and chloroform, all of which were present in the industrial well at the southern end of the 15 acres, were also identified in soil and sludge samples collected by Yankee on tannery property.

- TCE and DCE were present in the well on the 15 acres and in the well at the tannery. Since DCE was also found in a monitoring well upgradient from the tannery, Yankee found that "suggests [emphasis contained in report] that the Riley [tannery] property is the probable source of that contamination" in the well on the 15 acres.

- The Yankee report stated that "chlorinated volatile organic compounds" — in other words, the types of industrial solvents cited in the lawsuit — could flow from the well at the tannery to the well on the 15 acres "under pumping conditions." But the report added that "the Riley [tannery] site is not the principal source of contaminants" found in the well on the 15 acres.

Schlichtmann, in a brief accompanying his motion for a new trial, called the 1983 report "irrefutable evidence that the tannery contributed to solvent contamination at the fifteen acre Beatrice site." He also submitted affidavits from Pinder and Drobinski stating that the Yankee report would have assisted them in conducting their investigations.

But M. Margret Hanley, a geologist who helped prepare the 1983 Yankee report and the 1985 follow-up report, which was conducted by Geotechnical Engineers Inc., of Winchester, said Schlichtmann had drawn conclusions from her work that were "not correct." By 1985, she said, she had come to the conclusion that the figures for TCE and DCE in the Yankee report were meaningless, because they involved concentrations of less than one part per billion. Such readings could come from "laboratory or equipment error or instrument contamination." The Geotechnical study, Hanley said, concluded that the tannery property "is not a probable source of the contamination east of the site" — in other words, of the 15 acres.

During three days of acrimonious hearings in October and November 1987 before Judge Skinner, Schlichtmann argued

that a contract signed by Beatrice and Riley following the 1983 sale obliged Riley to cooperate fully in Beatrice's defense — and that Beatrice legally had full access to all documents Schlichtmann had requested during the pre-trial discovery period, regardless of whether the documents were in Beatrice's or Riley's possession. Charles Nesson, Schlichtmann's associate, asked Skinner to question lawyers for Beatrice and Riley to determine whether the documents had been deliberately withheld. Skinner angrily refused — a decision that came back to haunt him when the appeals court rendered its ruling nearly a year later.

Schlichtmann's arguments had some effect, but not enough. In January 1988 Skinner ruled Beatrice had, indeed, erred by not producing the Yankee report before the start of the trial. He criticized Beatrice's lawyers for "a lapse in judgment" in failing to turn the document over to the families' attorneys. But he did not find that Beatrice's lawyers engaged in any deliberate wrongdoing, blaming the incident instead on the "frenzy" of the pre-trial discovery period. "In any case," Skinner wrote, "I do not find that fraud or deliberate misrepresentation has been established by any clear and convincing evidence." He added that the Yankee report itself "would have had no effect on the result."

Schlichtmann was enraged by Skinner's decision, telling the *Times Chronicle*, "He always favors Beatrice and is totally insensitive to the families' rights. ... He tried to excuse the conduct, but he could not ignore the conduct. Concealing information — there's no way you can sugarcoat that. It resulted in the families being deprived of crucial information." Schlichtmann incorporated his objection to Skinner's ruling into his appeal, which was now his sole hope for a new trial.

Schlichtmann lands in hot water: The appeal took an especially bizarre turn on March 23, 1988, when an *amicus* brief on behalf of the families was filed in the Court of Appeals by the 3,000-member Massachusetts Association of Trial Attorneys (MATA) — and was almost immediately revoked by that organization's president.

The MATA brief was unusual in that it called for sanctions against Facher, Beatrice's lawyer, and Ryan, Riley's lawyer, for withholding evidence from Schlichtmann — even though Judge Skinner had already cleared both lawyers of wrongdoing. "Unless such conduct is effectively punished," the concluding section of the brief stated, "the message will be plain: Such practice is tolerated by the courts; even if caught, the benefits justify the risk."

An angry Facher told the *Boston Globe*: "I find those statements referring to me to be personally offensive and an outrageous personal attack based on a complete distortion of what Judge Skinner wrote in his opinion." Added Ryan: "In the papers I filed in the lower court, I set forth our position, and that position is that at all times we complied with the applicable rules of procedure. And Judge Skinner's ruling found that we had done so. Our position is that [MATA's] motion is an unjustifiable tactic."

Within days, Camille F. Sarrouf, president of MATA, with-

drew the brief and apologized to Facher and Ryan. Sarrouf, of the Boston firm of Sarrouf, Tarricone & Fleming, told the *Times Chronicle* he was angry because he had never seen the concluding section and was subjected to media inquiries over something he knew nothing about. "They were asking questions about things we didn't even recognize," he said. "I don't think that's fair. ... It made me look stupid." Attorney Michael E. Mone, of the Boston firm of Esdaile, Barrett & Esdaile, a past president and governor of MATA, whose name appeared on the brief along with Sarrouf's, agreed that neither of them had seen the concluding section, adding he found it "offensive." Robert Costello, chairman of MATA's *amicus* committee, said he approved the concluding section, but did not send copies of it to Sarrouf and Mone, assuming Schlichtmann would do that.

Schlichtmann admitted that Sarrouf and Mone had not seen the conclusion, a 1 1/2-page section of a 24-page brief, and said he did not have time to show it to them before filing it. But he said the conclusion did not differ substantially from the preceding 22 1/2 pages, and charged Sarrouf and Mone used it as "an excuse" to withdraw the brief. "Unfortunately, I think the academy leadership bowed to pressure," Schlichtmann told the *Times Chronicle* — a statement that was denied by Sarrouf, Mone and lawyers for Beatrice.

The incident was loaded with ironies. Sarrouf at one time had been retained by two of the Woburn families to investigate Schlichtmann's handling of the case. By the time the MATA brief was filed, however, Sarrouf said his involvement in the case had ended. Costello, of the Boston firm of Schneider, Reilly, Zabin & Costello, would normally have reviewed and edited Schlichtmann's draft himself, since he was chairman of the *amicus* committee. But because he had had a peripheral involvement in the case — he represented one of the five families who shared in the settlement with W.R. Grace — he asked that someone else undertake the task. Stepping forward was Arthur Licata, a member of the committee, who edited Schlichtmann's draft and wrote the closing section — and he, too, had been involved in the case, researching some legal issues and loaning Schlichtmann money. Licata said his involvement ended in December 1986.

Families Win Partial Victory

Oral arguments before a three-judge panel of the Court of Appeals were held July 28, 1988. The long-awaited hearing was anticlimactic, as each side was limited to 25 minutes and the judges interrupted the lawyers several times to ask about arcane points of the rules of federal procedure. The families' case was argued by Charles Nesson, the Harvard professor, while Facher delivered Beatrice's argument.

The appeals court's decision, however, was anything but anticlimactic. On December 7, in an unusually strongly worded

'[T]he record contains clear and convincing evidence — overwhelming evidence, to call a spade a spade — that appellee [Beatrice] engaged in what must be called misconduct under the applicable legal standard.'

***— U.S. Court of Appeals
for the First Circuit***

opinion, the three judges — Hugh Bowmes, Bruce Selya and Juan Torruella — blasted Beatrice for withholding the 1983 Yankee report and the 1985 Geotechnical report, and ordered Skinner to conduct hearings to determine whether Beatrice knowingly or intentionally withheld the documents.

"[T]he record contains clear and convincing evidence — overwhelming evidence, to call a spade a spade — that appellee [Beatrice] engaged in what must be called misconduct under the applicable legal standard," the court said. Because of that misconduct, the 54-page unanimous decision continued, Schlichtmann may have been improperly barred from conducting tests on the tannery property itself.

"Opportunity for discovery is the issue where the tannery is concerned, not sufficiency of the evidence," the appeals court said. "If the court were to find that Beatrice's secretion of the [Yankee] Report improperly foreclosed plaintiffs from conducting tannery discovery, it could reasonably afford them the chance for further discovery limited to that issue — better late than never — in order to see if plaintiffs can uncover enough evidence to go to the jury."

Judge Skinner had long appeared to be weary of the case. Therefore, the appeals court's ruling must have been particularly galling to him, since it appeared that if he had gone along with Charles Nesson's request in the fall of 1987 to briefly question Beatrice's and Riley's lawyers, the appeals court would have rejected Schlichtmann's case in its entirety:

"[W]e think the judge erred in rejecting plaintiffs' motion to inquire — an error that was compounded when he proceeded to make findings of fact on the very matters which inquiry could reasonably have been expected to illuminate," the court said.

At the same time, the court refused to remove a large obstacle standing in Schlichtmann's path. The court upheld Skinner's October 1986 ruling that George Pinder's testimony was "fatally flawed" and lacked credibility: "Especially in light of the pump-test evidence, the district court was justified in preferring Dr. Guswa's testimony to that of Dr. Pinder."

The court therefore had presented Schlichtmann with a dilemma: It said that, because of legal misconduct, he may have been improperly barred from trying to show that the tannery was a source of contamination to the 15 acres. But it also said the issue of whether the 15 acres was a source of contamination to wells G and H had already been decided in favor of Beatrice. The possibility existed that Schlichtmann would be awarded a new trial that he could not possibly win.

Schlichtmann's way out was to approach the hearings the court had ordered as a new trial, and to bring in as much evidence as possible to show that all issues — not just the tannery — should be reopened.

Schlichtmann fired his first shot in late December, filing a

motion with Skinner stating that he intended to present newly uncovered evidence of misconduct — mainly, that sludge had been removed from the 15 acres while the property was under investigation during the 1980s. Skinner was evidently impressed, because he wrote an opinion stating that he would allow the hearings to be more extensive than the one- or two-day session he had envisioned. The judge wrote that the families "are entitled to information bearing on the existence of a general plan of concealment of which the nondisclosure of the Yankee report may have been one manifestation."

Seventeen days of hearings: The hearings began on Tuesday, January 31, 1989, and extended over 17 days through mid-March. The court sessions were marked by bitter exchanges between Schlichtmann and Skinner, with Skinner frequently raising his voice and blasting Schlichtmann, charging him with wasting the court's time with pointless questions and his refusal to concede even the most minor point.

The families were allowed to attend the court sessions, giving them their first look at the players involved. Several family members were present virtually every day, and they frequently expressed anger at what they interpreted as Skinner's unfair treatment of Schlichtmann. As the weeks wore on, though, Skinner appeared to become more impressed by the case Schlichtmann was making.

Highlights of the testimony:

H Laurence J. Knox, a Bedford, N.H., well driller, said he observed four men use a backhoe and a dump truck to remove debris and soil from the 15 acres in the summer of 1983.

• James Granger, who was in charge of the maintenance department at the tannery from 1973 to 1986, testified that about three cubic yards of waste containing "hair and manure" were removed while tannery employees were clearing an area for test well to be drilled on the southern end of the 15 acres. The material was disposed of in a dumpster behind the tannery, he said. Although Granger said he could not remember the year the incident took place, the lawyers agreed it was most likely in 1983.

• M. Margret Hanley, the geologist who supervised the 1983 Yankee report and the 1985 Geotechnical report, said Riley's lawyer, Robert A. Fishman, of Nutter, McClennen & Fish, was "upset" with her firm's October 1984 recommendation that further soil and groundwater tests be conducted on tannery property. The recommendation was dropped from subsequent drafts of the report and from the final April 1985 document. Fishman, contacted by the *Daily Times Chronicle*, declined to comment.

• John J. Riley Jr. conducted a pumping test to learn whether groundwater beneath the tannery could flow onto the 15 acres and asked several times whether his property could have contaminated wells G and H. Hanley testified. The potential

significance of this was that if Skinner had known that tests were being conducted on tannery property, he may have allowed Schlichtmann access to the property.

• Richard N. Jones, a Wakefield resident who formerly worked as a chemist for the tannery, testified that Riley ordered tests on several occasions and kept his own set of files on the tests in his office.

• Riley, called to the witness stand by Schlichtmann, insisted he had "no secrets to hide from anybody" and said he gave Beatrice any information that it requested. But on further questioning, Riley said he did not believe his agreement to share information pertained to any documents generated after he repurchased the tannery in 1983. He said that Beatrice continued to operate tanneries and that he considered the company a competitor.

• Riley exhibited considerable difficulty recalling past events, saying he had no memory of conducting any tests on tannery property or of materials being removed from the 15 acres. Because Riley failed to contradict testimony offered by Hanley, Jones and others, Skinner said he was forced to conclude that tests and removal did take place.

• Charles F. Myette, project manager for the USGS test of wells G and H, testified that two engineering firms hired by Beatrice reneged on an agreement to monitor the industrial well at the southern end of the 15 acres during the December 1985 pump test, thus making it impossible to tell whether groundwater beneath some parts of the 15 acres would flow toward wells G and H or toward the industrial well. Representatives of the firms countered that they informed the EPA official in charge of the test as soon as they learned it would be physically impossible to install the equipment they needed to monitor the well. They added they made other arrangements to obtain the information.

• Brown sludge taken from the 15 acres contained discarded animal fat, indicating that it was tannery waste, according to Dr. Thomas Schrager, a toxicologist with the Boston University School of Medicine, who was retained by Schlichtmann. But Dr. Olin C. Braids, of Geraghty & Miller, testifying for Beatrice, said the material was "a synthetic resin" that contained no animal fat.

• Beatrice attorneys Jerome Facher and Neil Jacobs took the stand in their own defense, testifying they never conspired with Riley's lawyer, Mary Ryan, to conceal information from the families. "At no time either then or now did I engage in misconduct," Facher said. He said he learned of the Yankee report for the first time in January 1986, just before the trial began, when Ryan showed it to him at a deposition. "I rifled through it. It was technical. It was one of, by that time, probably thousands," he said. He added he did not produce it for Schlichtmann because it seemed unimportant and because there was an "understanding" that Schlichtmann would seek tannery documents from Ryan. Schlichtmann filed a subpoena that would have compelled production of the report, and Ryan responded with a motion to quash the subpoena. Facher re-

***'At no time either then or now
did I engage in misconduct.'***

— Beatrice attorney Jerome Facher

called, adding that at one pre-trial hearing Schlichtmann said, "It has been resolved."

Waiting for a decision: The hearings ended Friday, March 17. But Skinner, in a brief session with reporters afterward, indicated it could be a long time before the families learn whether they will be awarded a new trial.

"I suppose it will be quite some time before the matter is finally resolved," Skinner said.

Skinner must first issue a ruling based on the first phase of hearings, a process that could take several months. Regardless of which way he rules, more hearings must be held — this time to determine whether the withholding of the report deprived the families of a fair trial.

If Skinner rules in favor of the families on this first phase, the burden will be on Beatrice in the second phase to show that its failure to produce the report did not affect the outcome of the trial.

A ruling in favor of Beatrice would mean that the burden of proof would be on the families during the second phase.

After the second round of hearings, Skinner must write a report and make recommendations to the Court of Appeals, which has retained final jurisdiction and which will ultimately decide whether a new trial should be awarded.

Recommended Reading

Paula DiPerna, *Cluster Mystery: Epidemic and the Children of Woburn, Mass.*, St. Louis: The C.V. Mosby Company, 1985.

Renee Loth, "Woburn, Science and the Law," *The Boston Globe Magazine*, February 9, 1986.

Mitchell Pacelle, "Contaminated Verdict," *The American Lawyer*, December 1986.