Browner slams GE's Hudson PCB campaign

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Not since Douglas Costle crossed the country in the late 1970s impressing the link between industrial toxins and cancer on the national consciousness has a US federal environmental chief personally staked so much prestige on such a high-stakes dispute. On July 9, Environmental Protection Agency (EPA; Washington, DC) administrator Carol Browner, in an unprecedented appearance before members of the New York State Assembly, lit into the General Electric Corporation (GE; Fairfield, CT) for polluting the Hudson River for more than 30 years with polychlorinated biphenyls, or PCBs—and, worse, for mounting a public relations campaign to minimize serious health risks PCBs pose to people and the environment.

"GE tells us this contamination is not a problem," Browner told the assembly's Committee on Environmental Conservation. "GE would have the people of the Hudson River believe, and I quote: 'Living in a PCB-laden area is not dangerous,'" a remark made by General Electric Chairman Jack Welch at the annual stockholder's meeting in May. Browner cited research conclusions by the EPA, The International Agency for Research on Cancer, the National Toxicology Programs and GE itself "that PCBs are reasonably likely to cause cancer in humans."

There was little hesitation about playing on public fears of cancer. Quite the contrary. Though some data was inconclusive or incomplete, Browner conceded, new studies suggest that "nursing infants may ingest 50 times more PCBs than their mother ingest from fish and other foods. . . Preliminary research indicates that PCBs may disrupt human endocrine systems, potentially causing abnormal growth and development in children." And "further evidence" linked PCBs to malignant melanoma, non-Hodgkin's lymphoma, and other cancers.

Finally, announcing a 16-month delay in the EPA's long-awaited proposal for cleanup, including possible dredging of PCB-laden hotspots in the Hudson, Browner was at pains to distance herself from GE and its stratagems. The delay, she declared, was "not because, as some have suggested, that GE has somehow influenced me or the EPA. Nothing could be further from the truth. In fact, I have never spoken to Jack Welch. . . or any other high-level GE official, despite my request for a meeting. . . ."

It was a remarkable admission. Browner's performance marked a major escalation in a long-simmering dispute with GE over how to deal with PCBs in the Hudson River (*Nature*

Biotechnology 15:1227, 1997). It appeared directed, at least in part, at EPA critics in the environmental community who have charged the Clinton administration with cozying up to big corporate polluters. But Browner was also reportedly upset by GE's increasingly public campaign on the Internet and elsewhere in the past six months to spread the word that "PCBs pose no risk to human health," as one EPA spokesperson put it. Browner's assault on GE and her determination to keep alive the controversial and expensive option of dredging the Hudson also marked the end of any lingering hopes that new PCB bioremediation technologies are just around the corner.

Over the past decade, GE poured an estimated \$130 million into PCB research and led the way in studying the conditions under which PCBs—used as a fire retardant in electrical equipment and hydraulic fluids at its Fort Edwards and Hudson Falls plants on the upper Hudson—succumb to natural biodegradation in the environment through dechlorination.

But less than two years ago, GE broke up its environmental research program and curtailed its PCB studies, apparently convinced that the investment in PCB bioremediation had reached a point of diminishing returns, a conclusion now shared privately by top research scientists and public officials. That was a dramatic switch from the early 1990s, when GE researchers voiced their bullishness about the potential of PCB bioremediation. Dan Abramowicz, then the head of GE's environmental technology program in Schenectady, NY, whose work on the biodegradation of PCBs by anaerobic microorganisms attracted national attention, predicted that PCB bioremediation would be an effective technology within 10 years.

Even so, Abramowicz, who left GE earlier this year, was well aware of the pitfalls. "The regulatory system around PCBs is so intimidating and public perception is still so negative that, even though the growing weight of scientific evidence is in its favor, significant pressure against the use of bacteria to clean up PCBs will continue, at least for the near future," he said at the time of his departure.

Those may have been prophetic words. They certainly help create a strong impression that GE, if it has not completely reversed field on PCBs, has at least found a new strategic approach to its PCB problem, which could cost the company hundreds of millions of dollars if it is forced to pick up the tab for dredging by the EPA.

GE, for its part, now takes the position that research, particularly into the anaerobic degradation of PCBs, demonstrated sufficiently that PCB concentrations buried in the river's sediment will degrade naturally over time. Company scientists therefore conclude that the best remedial solution, now that the sources of PCB contamination have been cleaned up, especially the 1991 release of PCBs from an abandoned mill near the Hudson Falls factory, is to leave well enough alone. EPA officials acknowledge that GE has done "a very good job with a very small part of the problem."

GE's position, taken together with its public posture that PCBs are not dangerous to human health—based largely on the fact that most PCB studies have been done on animals and that no evidence has proved conclusively that PCB contamination causes cancer in humans—has drawn intense fire from EPA scientists. But the real issue is how PCBs, which in some forms all parties know to be highly toxic and resistant to degradation, behave in the river. In a recent review of the Hudson data, EPA researchers concluded that no more than 10% of PCBs in the river are likely to degrade naturally, that some of the most toxic forms of PCB are present, and that high concentrations of PCBs along 200 miles of the river now designated as a Superfund site may migrate into the water column under some conditions.

The EPA campaign against GE is sure to deepen in the coming months. So is the controversy over the safety of dredging and disposal of contaminated material. For starters, the agency is beefing up its Hudson River website to offset what it considers GE's corporate disinformation campaign. Meantime, the formal scientific assessment of the Hudson's PCB burden, begun in 1984, will continue. New EPA data on the 40 or so hotspots with high concentrations of PCBs were expected out late last month, to be followed next year by the final EPA assessments of the human and environmental risks posed by various remedies, including taking no action at all. Finally, the EPA's proposed cleanup plan will be ready for public review in December 2000.

The prediction here: After the dust settles from all the scare tactics and dissembling on both sides, the best and safest course will probably be some variant of doing nothing, perhaps with limited dredging. And another once-bright commercial prospect for the biotechnology industry has all but vanished. ///