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02/23/2005 07:41 PM

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----- Forwarded by Sara J. Ethier/US-Corporate/3M/US on 02/23/2005 01:41 PM -----



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02/23/2005
11:50 AM

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FYI -

Report on 3M's use of PFOA and PFOS

As an engineer who was very close to the fluorochemical issue at 3M, I commend your report for being one of the most factual and unbiased ones I have heard. I am no longer with 3M, partly because the stress I had dealing with the fluorochemical issue and other 3M environmental issues led to personal problems that I could not resolve to 3M's satisfaction. Nonetheless, the continuing issues around FS's continue to disturb me.

While your report focused on the popular Scotchgard fabric treatment, you didn't thoroughly go into the other uses of the FC chemistry which probably caused the widespread environmental contamination. PFOA and PFOS are also components found in 3M's Lightwater Aqueous Film Forming Foam, or AFFF (aka "A triple F"). This chemical was used widely (and still is around) in the foams used in putting out petroleum fires. Notably, thousands of gallons were used to put out the Kuwaiti oil fires in the early 90's. Not only was AFFF the US Navy's chemical of choice for petroleum fires, the largest use of it was in training exercises. Therefore, it is not surprising that it is being found around the world. The Decatur, Alabama plant had a large AFFF testing area that I believe is the subject of a remediation study.

You didn't mention that for many years, the Decatur plant spread sludge from its wastewater treatment plant on 3M owned adjacent farmland as a fertilizer. Fluorochemical production cell



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"bottoms" which contained PFOA and PFOS were a component of this sludge.

Closer to home, you reported correctly that water from the Woodbury landfill site is being used at the 3M Cottage Grove plant. Most of this water does not receive treatment for FC removal and is being discharged to the Mississippi River. Water pumped from beneath the plant itself is also contaminated with FC's. Although much of this water is treated through activated carbon filtration columns, a significant portion is not. This water either is used for cooling water and is intentionally not treated, or is used at the 3M incinerator at the site. Only a part of the water used at the incinerator is treated because of design flaws in the carbon treatment system. To my knowledge, this problem has not yet been resolved.

The source of the contamination at the Cottage Grove site continues to be under investigation. The company has been studying ways to treat all water under the plant as a "contingency" plan. This may result in construction of another carbon filtration system at the site or relocation of the wells to supply water to the site although this latter option still doesn't fully address the contamination itself.

Part of the difficulty in this whole issue is the cost of analyzing water for PFOA and PFOA. It costs \$1400 per sample to run the test. Therefore, it is costly to track the source or direction of contamination. While 3M has been doing a fairly responsible job in this, the cost issue does come up when such studies are proposed.

As for the MPCA involvement with the issue, my understanding is that the MPCA was looking at the environmental aspects of the chemistry and the MN Department of Health was supposed to look at the human health effects. This is the proper approach. While the direct human health effects still have yet to be determined, it is prudent to minimize use and human exposure to these substances.

*Tom Baltutis
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Fred

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