

The Chemours Case—An Ethical Perspective

It has been estimated from EPA and independent lab data that 110 million Americans use drinking water contaminated with a class of industrial polymers known as per- and polyfluoroalkyl substances, or *PFASs* (EWG, n.d.). Chemical production is clearly a health and environmental issue, but it is also an ethical one.

DuPont became aware of the carcinogenicity of PFASs as early as the 1970s. EPA set limits for two key PFASs (the agency has been silent on all others) at least 100 times too high, based on an analysis of the benchmark data cited by EPA (Grandjean & Clapp, 2015). PFAS contamination is therefore an environmental and health issue only because it was an ethical one first. This paper will treat a single case from the perspective of the Penn State values, but the issues raised are of broad concern. Unethical actions by DuPont and relevant regulatory agencies have potentially exposed nearly a third of the US population to PFASs; the specific case studied here points to a systemic failure that warrants a reassessment of how the chemical industry is permitted to operate.

The Chemours Fayetteville plant—situated on the Cape Fear River between Fayetteville and Wilmington, NC—has produced fluoropolymers for nearly five decades. Today, the plant manufactures several PFASs: GenX¹ (HFPO-DA), Nafion, and their precursors. PFASs have been found in concentrations above NC's optimistic 140 ppt public health goal in the water supply of Wilmington, NC (>700 ppt) downstream from the plant, in drinking water wells (>1,000 ppt) in the vicinity of the plant, in lakes several kilometers upstream and away from the river (>600 ppt), and in a local beekeeper's honey (2,070 ppt). Chemours states that wastewater is no longer discharged into the river, but Wilmington's incoming water is still contaminated, which is explained by atmospheric pollution (GenX alone is released at a rate of around 300 kg/year). Atmospheric pollution also explains the high levels of contamination upstream and away from the Cape Fear River (Sun et al., 2016).

The Chemours site began producing GenX in 2009 after 3M ended its US production of PFOA², which it supplied to DuPont, as concern grew over the safety of PFASs. DuPont entered into an agreement with EPA prior to beginning production of GenX, which promised no more than 1% of the GenX and its precursor

¹ A replacement for long-chain PFASs recently found to be more toxic than its predecessors (Sheng et al., 2018).

² Perfluorooctanoic acid, used in manufacture of Teflon and other fluorotelomers.

produced would be discharged into waterways or emitted to the atmosphere. When Chemours was spun-off, DuPont retained its supply of GenX while separating itself from the “1%” responsibility. Even still, it is unlikely Chemours will suffer much more than bad press: an agreement with NC Dept. of Environmental Quality (DEQ) is pending in the state supreme courts that would absolve the company from legal responsibility and continued operation. This situation has a familiar theme. Chemical producers seem to have little incentive to reduce pollution; rather, the strategy reduces to regulatory capture and legal maneuvering—behavior which stands in stark contrast to the Penn State Values of integrity, respect, responsibility, discovery, excellence, and community. Arguably, DuPont/Chemours, the DEQ, and EPA have all showed a disregard for these values by their actions in this case. DuPont shirked responsibility for a chemical it created, showed certain disrespect for human life and the environment, misled regulators about the extent and toxicity of their emissions and effluent, and knowingly harmed the community. For their part, DEQ and EPA have been little more than quiet, apologetic and ineffectual bystanders.

Chemical producers have little incentive to change. Firms are amoral profit-maximizers and cost-minimizers; with sufficient power they are able to pass much of their costs on to third parties. Stake (not stock) holders—in this case local residents and workers, in particular—pay these externalized costs. Society writ large then pays twice for PFAS production, in a sense: first, for the goods at market; second, for productivity lost to ill-health.

There is no simple, perfect, or wholly satisfying solution to this problem, because it arises from issues central to post-industrial civilization, capitalism, and democracy. A pragmatic solution, then, would be one representing some increment toward honoring the values of community and responsibility. Regulatory failure and amoralism in industry indicate that society is left holding the proverbial bag. The stakeholders in the Chemours case should be compensated—ignoring the irony of fixing the damage done by greed with money—the plant should be shut, and the firm’s management should spend substantial time in prison. The latter suggestion might be most meaningful: in a time when corporate irresponsibility and government apologisms feel to many more normal than justice, piercing the corporate veil is surely a welcome remedy for workers facing cancer as an occupational hazard, and citizens drinking toxic water while their government looks away.

References

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