As the incoming Chair of the Section, I am grateful to report that the Environment, Energy & Natural Resources Section is off to another strong year thanks to the work of Section leadership in recent years and the work of our dedicated NCBA staff.

Many thanks to outgoing Chair Sean Sullivan for helping us put the Section on firm financial footing and for setting a clear path to continue our tradition of meaningful off-site annual meetings each spring.

We have a lot of good things happening in the Section, and we look forward to a great bar year. A handful of items to note:

On August 15, members of the Section Council had an opportunity to meet with leadership of the Department of Environmental Quality ("DEQ"), including Secretary Michael Regan, General Counsel Bill Lane, and Senior Policy Advisor Mary Penny Kelley. The meeting was held at DEQ Headquarters in Raleigh and was an informal discussion of DEQ priorities and policies as well as major issues that DEQ is dealing with currently. It was a good reminder of the wide array of issues that DEQ staff must address on a daily basis. Section Council members expressed concern regarding potential impacts to DEQ operations resulting from budget reductions and provided input on potential improvements to the permitting process for projects requiring multiple DEQ permits. Thanks to Section members Bill Lane and Mary Penny Kelley for helping to schedule the meeting.

The first Section Council meeting of the year was held on August 25 at the NCBA Bar Center.

GenX: Regulating Emerging Contaminants in Water Supplies

By Robin W. Smith

Background
In a December 2016 research paper, N.C. State University professor Dr. Detlef Knappe documented the presence of the perfluorinated compound known as “GenX” in the Cape Fear River. The river provides drinking water for the Cape Fear Public Utility Authority (serving Wilmington-New Hanover County) and several smaller water systems. When the findings became more publicly known in June 2017, residents raised concern about health risk and the adequacy of federal/state regulation.

EPA began studying the effects of perfluorinated compounds (used in products such as firefighting foam, water repellants and Teflon) over fifteen years ago. EPA worked with chemical companies to phase-out the two compounds most commonly used, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), because of concerns about persistence in the environment and human health risk. In 2009, DuPont began manufacturing GenX, a chemically distinct perfluorinated compound, at its Fayetteville Works as a replacement for PFOA. The Chemours Company, a DuPont spin-off, now operates the Fayetteville plant which is located upstream of drinking water intakes for Cape Fear Public Utility Authority (CFPUA) and other water systems. GenX has uncertain health and environmental risks and no federal standards exist to guide state permitting and enforcement action. EPA has not adopted a drinking water standard for GenX, identified the compound as a priority water pollutant, or set effluent guidelines for discharge of the chemical under a National Pollutant Discharge Elimination System (NPDES) permit. This article will focus on the key federal laws involved; gaps in those laws; and the state’s responsibility to act in the absence of federal standards. Although the article uses known facts about the GenX situation as illustration, it should not be read as an opinion on any entity’s legal liabilities.

The Toxic Substances Control Act (TSCA)
EPA regulates manufacture and importation of chemicals under the Toxic Substances Control Act of 1976. The TSCA provisions most relevant to GenX (in Section 5 of the Act) require a manufacturer to notify EPA before manufacturing a new chemical. Based on review of information submitted with the notice, EPA may find the new chemical is “not likely to represent an unreasonable risk” and approve manufacture. If EPA doesn’t have sufficient information to evaluate environmental and health effects or the available information suggests an unreasonable risk of harm,
EPA can require additional testing or limit release of the chemical to the environment. Out of concern that GenX may have risks similar to those associated with PFOA and PFOS, EPA approved manufacture of GenX under a 2009 TSCA consent order that required DuPont to effectively eliminate release of GenX in wastewater and air emissions from the Fayetteville manufacturing operation.

The problem: TSCA only covers chemicals manufactured or imported into the United States; it does not apply to a compound produced as a by-product of an industrial process. The TSCA consent order requiring DuPont to eliminate GenX from wastewater discharges and air emissions associated with manufacture of GenX did not prohibit discharge of GenX created as a by-product of an unrelated process. The current manufacturer, Chemours Company, has indicated that a separate vinyl ether operation at the Fayetteville Works produces GenX as a byproduct and discharges from that operation are the likely source of GenX in the Cape Fear River. Discharge of GenX as a byproduct of other industrial processes would have to be addressed under different laws – most likely the Clean Water Act.

Clean Water Act
The Clean Water Act requires a permit to discharge waste to rivers, lakes, streams and coastal waters. The National Pollutant Discharge Elimination System (NPDES) permit puts specific limits on pollutants in the wastewater discharge based on environmental and health effects. EPA has set technology-based effluent guidelines for cate-gories of industries, including chemical plants. But the guidelines do not cover all pollutants or every possible type of waste stream. EPA's current effluent guidelines for chemical plants do not include a limit for discharge of GenX. In the absence of an existing EPA effluent guideline, the NPDES permit writer must set the discharge limit on a case-by-case basis applying factors set out in the Clean Water Act. Like other states, North Carolina has the authority to issue NPDES permits by delegation from EPA, so the responsibility to develop case-by-case effluent limits falls on the state water quality program. The permitting process relies on the applicant to disclose the pollutants likely to be discharged in the wastewater. (One question with respect to GenX is whether DuPont/Chemours provided complete information to state permit writers in applying for an NPDES permit to cover multiple processes at the Fayetteville Works.)

The problem: Federal effluent guidelines can lag behind development of new chemicals and evolving knowledge about risk presented by those new chemicals. In the absence of federal effluent guidelines, the burden will be on the state water quality staff to set permit limits based on review of the environmental and health effects of the unregulated contaminant. That may require state staff to research and evaluate limited, inconclusive or conflicting data to develop those limits.

Safe Drinking Water Act
The Safe Drinking Water Act (SDWA) does not prevent contaminants from reaching groundwater or surface water, but requires public water systems to deliver treated water that meets minimum national drinking water standards. EPA has adopted drinking water standards for 88 contaminants. Public water systems must monitor for those contaminants and provide water treatment sufficient to meet national standards. Given the number of compounds manufactured or created as a by-product of industrial activities, drinking water standards do not exist for most contaminants. EPA has not adopted a drinking water standard for GenX or any other perfluorinated compounds, including PFOA and PFOS.

EPA continues to study the need for a national drinking water standard for perfluorinated compounds. EPA's decision will be based on the likelihood the contaminants will be found in drinking water; the health effects; and the technical/economic feasibility of treating the water to reduce health risk. It isn't clear what conclusion EPA will reach on PFOA/PFOS and the decision to develop a standard for next generation alternatives like GenX would be even further in the future. The state can adopt drinking water standards to supplement national standards; under North Carolina law, the Commission for Public Health has authority to adopt state drinking water standards.

The problem: In the absence of a state or federal drinking water standard, a water system has no obligation to monitor for the contaminant or treat the water to remove it. Short of adopting a drinking water standard, EPA sometimes issues a health advisory for a particular contaminant to guide water systems on risk reduction; that information can also be useful in state regulatory decisions requiring risk assessment. Health advisories currently exist for a limited number of contaminants. EPA has issued a health advisory for PFOA and PFOS (combined) of 70 parts per trillion based on long-term exposure, but EPA has also said that the PFOA/PFOS health advisory does not apply to other compounds like GenX. And although many of the environmental and human health risks associated with PFOA and PFOS have been known for 10-15 years, EPA only issued a health advisory based on long-term exposure in 2016. In the absence of a national drinking water standard or health advisory, the state may increasingly be called on to develop its own benchmarks for safe drinking water.

The Regulatory Challenge for State Agencies
EPA standards for approving the manufacture and use of chemicals; regulating release of pollutants to the environment; and protecting drinking water sources are not comprehensive and often lag behind emergence of new contaminants or evolving science on risk. When an unregulated contaminant affects a drinking water source, the state clearly has a responsibility to assess the risk and set appropriate discharge permit standards. The state also has the authority to supplement federal drinking water standards. Compared to EPA, however, the state has very limited staff qualified to research and evaluate the risk of an emerging contaminant. State environmental agencies also operate under a law that restricts adoption of state rules that go beyond federal standards. See N.C.G.S. 150B-19.3. It has never been clear whether the legislature intended those limits on state environmental rulemaking to apply when EPA has failed to regulate a pollutant.

Legislative Action on GenX
In September, the legislature added GenX provisions to House Bill 56 (Amend Environmental Laws). The GenX provisions appropri-ated $185,000 to Cape Fear Public Utility Authority to study water treatment methods and monitor water withdrawn from the Cape Fear River; appropriated $250,000 to UNC-Wilmington (UNC-W) to study concentration of GenX in river sediments, the extent the chemical biodegrades or bio-accumulates, and risk to human health; and required the North Carolina Department of Environmental Quality (DEQ) to report back to the legislature by September 8, 2017 if the Department had not issued a Notice of Violation for the GenX
discharge. Much of the funding provided to CFPUA will off-set the cost of efforts already underway by the utility to test methods for removing GenX from drinking water. The funding could also cover CFPUA’s one-year contract with UNC-Wilmington to analyze raw water and treated water samples for additional perfluorinated compounds and advise the utility on water treatment. The UNC-W study could expand understanding of GenX, but has a very short timeline requiring a report back to legislature by April 1, 2018.

The bill does not allocate additional funding to either DEQ or the Department of Health and Human Services for response to emerging contaminants. Governor Cooper had requested $2.5 million to provide more resources for water quality monitoring; inspection of NPDES-permitted facilities; permit reviews; and development of health advisories for unregulated contaminants. Instead, DEQ faces a $1.8 million budget reduction for 2017-2018. So far, legislative action has focused solely on supporting local response to existing GenX contamination in the Cape Fear River, treating GenX as an isolated problem. In the long term, a broader legislative response may be required since many other contaminants will fall into these same gaps in federal regulation. The state already faces similar concerns about 1,4-dioxane in the Haw River. Both the state House and Senate have established special select committees to look into GenX issues and those committees could make recommendations for further legislative action in 2018.

Enforcement
On September 7, 2017, DEQ filed a complaint and request for a temporary injunction against Chemours Company. The complaint alleged both a failure on the part of Chemours to disclose information about the discharge of GenX during the NPDES permitting process and potential violations of state groundwater standards based on detection of GenX in water supply wells near the Fayetteville Works. DEQ and Chemours quickly entered into a partial consent agreement that requires Chemours to completely eliminate the discharge of GenX. The partial consent agreement does not resolve the alleged groundwater violations or past failure to disclose information about the presence of GenX in the permitted discharge to the Cape Fear River.

Chemours has also become the target of criminal investigations. The U.S. Attorney’s Office for the Eastern District of North Carolina reportedly issued a subpoena to DEQ for documents related to the Chemours NPDES permit and compliance records. Governor Roy Cooper asked the State Bureau of Investigation and DEQ to undertake their own review to determine whether there is a basis for state criminal action.

Robin Smith has a solo practice in environmental law and policy consulting following a career as an environmental lawyer in state government.

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