Exhibit 137

Steven B. Bird, MD
6 Laurel Ridge Ln
Shrewsbury MA 01545

February 4, 2025

JJ Snidow
Keller Postman
1101 Connecticut Avenue, N.W., Suite 1100
Washington, D.C. 20036

Supplemental Report on Camp Lejeune Water Contamination and EPA Ban of TCE and PCE

Recently, the Environmental Protection Agency issued regulations that ban all use of trichloroethylene (TCE) as well as all consumer use and most commercial use of tetrachloroethylene (PCE). These EPA regulations further bolster my opinions in the Camp Lejeune water contamination cases on the health hazards of the chemicals, previously detailed in my written reports dated December 8, 2024.

In issuing the new regulations, the EPA determined that any *lesser* restrictions on the use of TCE or PCE would fail to adequately protect public health. Specifically, EPA stated that "updating regulations under other EPA statutes would not be sufficient to address the unreasonable risk of injury to the health of workers, occupational non-users, consumers, and bystanders who are exposed to TCE under its conditions of use." 80 Fed. Reg. 102616.

In its press release announcing the new bans of TCE and PCE, the EPA stated that "TCE is an extremely toxic chemical known to cause liver cancer, kidney cancer, and non-Hodgkin's lymphoma." [EPA Press Release at 2].[1] The EPA also stated that TCE causes "damage to the central nervous system, liver, kidneys, immune system, reproductive organs, and fetal heart defects." With respect to PCE, the EPA stated that PCE is "known to cause liver, kidney, brain and testicular cancer, as well as damage to the kidney, liver and immune system, neurotoxicity, and reproductive toxicity."[2]

---

[1] Although the EPA did not specifically mention bladder cancer, that is likely because the epidemiological literature is more sparse and less developed, but the mechanism of action for bladder and kidney cancer is generally believed to be similar, and kidney and bladder cancer are both cancers of the urinary tract.

[2] The EPA also stated that "PCE can biodegrade into TCE, and PCE may contain trace amounts of TCE as an impurity or a contaminant." [EPA Press Release at 2]. This indicates that those at Camp Lejeune who were exposed to one chemical - TCE or PCE - were likely exposed to the other one as well.

Importantly, the EPA went on to make clear that these risks were *not* confined to the relatively large exposures that workers receive in occupational settings. Instead, the EPA made clear that "[t]hese risks are present even at very small concentrations." *Id.*

The EPA's announcement identified two examples of contamination events that illustrate the dangers of these chemicals even at low degrees of exposure. First, the EPA pointed to the Woburn, Massachusetts contamination, [EPA Press Release at 3], a site where TCE and PCE contamination led to markedly elevated cancer occurrence. As discussed in my earlier reports, the TCE and PCE concentrations present in the contaminated water wells in Woburn were similar to the concentrations present at Camp Lejeune. The EPA's belief that the Woburn TCE and PCE concentrations caused cancer, which "directly led" to the new rules banning TCE and PCE, confirms that the water contaminant concentrations at Camp Lejeune can cause cancer as well.

The other example identified by EPA in its press release was even more on point: Camp Lejeune itself. The EPA noted that "[t]he Camp Lejeune contaminated drinking water issue has dragged on over the better part of forty years ever since TCE, PCE and other organic solvents were first documented in the base's drinking water supply in October 1980." By discussing the Camp Lejeune contamination itself when deciding to ban TCE and PCE, the EPA is suggesting that the concentrations formerly present in the water at Camp Lejeune can cause these diseases.

These themes are repeated throughout the EPA's rule. *See* 89 Fed. Reg. 102568. The EPA stated that it was promulgating a rule to ban the use of TCE in nearly all instances in order to "address the unreasonable risk of injury to health presented by trichloroethylene (TCE)." The purpose of this "final rule," the EPA explained, was to "prevent serious illness associated with uncontrolled exposures to the chemical." 89 Fed. Reg.102568.

In making this determination, the EPA described a number of use cases ("conditions of use") that would present an unreasonable risk of injury to health. 89 Fed. Reg. 102572. The EPA emphasized that these risks are not limited to acute illnesses (like TCE toxicity) experienced by workers exposed to high amounts of the chemical. Instead, EPA "emphasiz[ed]" that although "acute single exposures" to TCE can be hazardous, "other risks are incurred following long-term repeated exposures." 89 Fed. Reg. at 102572; *see also* 89 Fed. Reg. 102575 (stating that EPA had "identified significant health effects associated with short- and long-term exposure to TCE."); 89 Fed. Reg.102575 ("TCE presents an unreasonable risk of injury to human health under the conditions of use based on acute and chronic non-cancer risks and cancer risks."). Those are precisely the kinds of exposures experienced by the Marines and civilians who were stationed at Camp Lejeune during the time period applicable.

The EPA went on to detail a non-exhaustive list of the illnesses that chronic exposure to low levels of TCE can cause, including "neurotoxicity," relevant to Parkinson's Disease,[3] and various types of cancer including "liver, kidney, and non-Hodgkin's lymphoma." 89 Fed. Reg. 102572; *see also* 89 Fed. Reg. 102611 ("For chronic exposures, EPA identified non-cancer effects . . . as well as

[3] EPA also noted that "several newer epidemiological studies have found an association between TCE exposure and neurodegenerative disorders such as amytrophic lateral sclerosis and Parkinson's disease." 89 Fed. Reg. at 102574.

cancer (liver, kidney, and non-Hodgkin's lymphoma), with kidney cancer identified as acting through a mutagenic mode of action."). Only by banning TCE entirely, the EPA concluded, could the "unreasonable risk to human health" from these diseases be "eliminate[d]." 89 Fed. Reg. 102572; *see also id.* (stating that the "benefits" of banning TCE include "reductions in risk of liver, kidney, and non-Hodgkin's lymphoma cancers associated with reducing risk of chronic TCE exposure.").

Finally, the EPA made clear that TCE-contaminated water increases the risk of these conditions. EPA stated that "TCE is carcinogenic to humans by all routes of exposure," *i.e.*, by ingestion and dermal exposure in addition to inhalation. And the EPA specifically noted that there would be "health-related benefits" from "reduc[ing] the amount of TCE in drinking water systems and thereby exposures to populations using those drinking water sources." 89 Fed. Reg. 102574. The Marines and civilians stationed at Camp Lejeune during the applicable time period represent exactly the type of population the EPA is enacting this change to protect.

Indeed, EPA required specific safety measures when humans might be exposed to "*wastewater* concentration [that] is [greater than] than 0.00284 mg/L." [emphasis added] 89 Fed. Reg. 102608-09. That concentration is equivalent to just 2.84 micrograms per liter or slightly less than three parts per billion, which is similar to the *lower* concentrations of TCE observed at Camp Lejeune during the relevant years. In many years, TCE concentrations were much higher - significantly, tens, hundreds, and nearly a thousand times higher. This demonstrates that the EPA viewed real risk to human health from simply being around (not even drinking) water containing TCE concentrations similar to, and even far less than, those at Camp Lejeune.[4] That is why the EPA required protective action to be taken above those concentrations. Furthermore, this concentration was calculated based on the apparent assumption that workers would not be *consuming* the contaminated water - hence the protective equipment. The real risk at Camp Lejeune (where Marines and civilians not only did not have protective equipment safeguarding them from the ambient risk of the contaminated water – unknowingly, they regularly consumed contaminated water) is likely far greater than contemplated by the EPA in this passage of the rule.

The rule on PCE contains similar statements supporting my opinions regarding the health hazards of TCE- and PCE-contaminated water. The EPA stated that the rule was designed to "address the

[4] The EPA's analysis of the risk to "fenceline" communities - *i.e.* those who live on the fence line of manufacturers that use TCE - suggests the same thing. *See* 89 Fed. Reg. at 102612. Although EPA was not able to produce reliable risk estimates for these communities, the rule nevertheless makes clear that EPA could "not rule out unreasonable risk to fenceline communities with confidence," 89 Fed. Reg. at 102612, and that "the potential risks to fenceline communities from exposure to water further strengthen the impetus for EPA's prohibition of TCE." *Id.* Moreover, the kind of fence-line water exposure the EPA was concerned about is *far* less direct than the exposure experienced at Camp Lejeune. EPA's analysis was predicated on the notion that companies using EPA would take care to prevent it from going into the groundwater. Indeed, "in no instances did EPA identify drinking water intakes within *ten miles* of a discharging facility." 89 Fed. Reg. at 102612. By contrast, at Camp Lejeune, TCE was dumped into the groundwater *directly*.

unreasonable risk of injury to health presented by perchloroethylene (PCE)." 89 Fed. Reg. 103560. As the EPA stated, "PCE's hazards are well-established." 89 Fed. Reg. at 103562.

As with TCE, the EPA made clear that its concern was not *only* about acute effects experienced by workers exposed to relatively high levels of PCE in occupational environments. To the contrary, the EPA stated that, although acute adverse consequences are also well-documented, "other risks are associated with long-term repeated exposures." 89 Fed. Reg. 103562.

With respect to specific diseases, "chronic adverse effects of PCE exposure include both cancer and the non-cancer outcomes" including neurotoxicity, which the EPA stated is "the most sensitive" observed effect. 89 Fed. Reg. 103598. The EPA went on to detail "other significant adverse outcomes [including] kidney and liver effects, immune system toxicity . . . and cancer." 89 Fed. Reg. 103562-63. These statements support the link between PCE exposure and the diseases relevant to this litigation. *See* 89 Fed. Reg. 103564 ("PCE is a neurotoxicant and considered likely to be carcinogenic in humans."). Indeed, the EPA states that the rule would "protect people from cancer and other adverse health effects of PCE by prohibiting most uses of PCE." 89 Fed. Reg. 103564. The new EPA rule went on to describe benefits to the American public from reduction in risk from "neurotoxicity" as well as various types of cancers. 89 Fed. Reg. 103564. Furthermore, the EPA made clear that its valuation of the benefits was likely a substantial "underestimate[]." 89 Fed. Reg. 103598.

Nothing in the EPA's new rules change my opinions about the cancer and other health-risks associated with the water contamination at Camp Lejeune. To the contrary, by banning all uses of TCE and banning all consumer (and most commercial uses) of PCE (as well as requiring new worker protections for exposure to contaminated wastewater), the EPA's rules provide important and significant support of my opinions.

Steven B. Bird, MD FACMT FACEP