

# Exhibit 114

# January 31, 2025 Supplement to the December 9, 2024 General Causation Expert Report of Howard Hu, M.D., M.P.H., Sc.D.

**Prepared by:**

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I am writing to provide a Supplement to my December 9, 2024 General Causation report, undertaken based on information that recently appeared in the peer-reviewed literature that I did not have an opportunity to incorporate into my earlier report.

I first note that in my December 9, 2024 General Causation report, Section IV (“Dose-Response Relationships at Low Levels of Exposure and Camp Lejeune”), I discussed the Camp Lejeune cancer mortality study conducted by Bove et al. that was peer-reviewed and published in July of 2024, but forgot to provide a citation and include the citation on my list of materials considered. The omitted citation is provided below<sup>2</sup>.

I now discuss the Camp Lejeune cancer incidence study conducted by Bove et al. that was peer-reviewed and published later, i.e., in October of 2024, but which did not come to my attention soon enough to be incorporated into my December 9, 2024 General Causation report.

In summary, in the cancer incidence study published in October 2024, Bove et al.<sup>3</sup> focused on the Marines/Navy personnel who began service and were stationed at Camp Lejeune (N=154,821) or Camp Pendleton, California (N=163,484) between 1975 and 1985 and civilian workers employed at Camp Lejeune (N=6,494) or Camp Pendleton (N=5,797) between October 1972 and December 1985. The authors obtained individual-level data on all primary, invasive cancer cases and *in situ* bladder cancer cases diagnosed between 1996 and 2017 via linkages with 49 state cancer registries, the District of Columbia registry, Puerto Rico and Pacific Islands registries, and Department of Defense (DOD) and VA registries. Follow-up began on January 1, 1996 and ended on 31 December 2017. Proportional hazards regression was used to calculate adjusted hazard ratios (aHRs) comparing cancer incidence between the Camp Lejeune and Camp Pendleton cohorts, adjusted for sex, race, education, and rank (or blue-collar work), with age as the time variable. Precision of aHRs was evaluated using the 95% confidence interval (CI) ratio (CIR; the ratio of the upper to lower limits of the 95% confidence interval). Compared with Camp Pendleton, Camp Lejeune Marines/Navy personnel had adjusted Hazard Ratios (aHRs)  $\geq 1.20$  with CIRs  $\leq 3$  for a number of different cancers. Among them were lymphoma subtypes mantle cell and marginal zone B-cell; specifically, among the Camp Lejeune Marines/Navy personnel, the AHRs for mantle cell and marginal zone B-cell lymphomas were 1.26 (95% CI: 0.73, 2.19; CIR: 3.0) and 1.45 (95% CI: 0.92, 2.28; CIR: 2.5), respectively. In addition, even though the numbers of Camp Lejeune and Camp Pendleton civilian workers was much smaller than those of the Marines/Navy personnel, the cancer incidence rates were found to be elevated for NHL in general, with an aHR of 1.19 (95% CI: 0.83, 1.71; CIR: 2.1).

In my opinion, these cancer incidence results (a) further strengthen the conclusion that low-level community exposures to TCE, PCE, and benzene can, at least as likely as not, cause lymphomas; (b) provide direct evidence of the relevance of the combination of these exposures to the risk of cancer among those living or working at Camp Lejeune; and (c) provide direct evidence that the combination of these exposures constitute a risk specifically for non-Hodgkins Lymphoma (NHL), since, as discussed in my December 9, 2024 general causation report, both mantle cell lymphoma and marginal zone B-cell lymphoma are NHL subtypes.

Overall, I have no reason to alter the conclusions I made in my December 9, 2024 general causation report; in addition, in my opinion, the results of the 2024 Bove et al. cancer incidence study allow me to specifically conclude that the combination of TCE, PCE, and benzene at the levels of community exposure

<sup>2</sup> Bove FJ, Greek A, Gatiba R, Boehm RC, Mohnsen MM. Evaluation of mortality among Marines, Navy personnel, and civilian workers exposed to contaminated drinking water at USMC base Camp Lejeune: a cohort study. *Environ Health*. 2024 Jul 3;23(1):61. doi: 10.1186/s12940-024-01099-7. PMID: 38961410; PMCID: PMC11221020.

<sup>3</sup> Bove FJ, Greek A, Gatiba R, Kohler B, Sherman R, Shin GT, Bernstein A. Cancer Incidence among Marines and Navy Personnel and Civilian Workers Exposed to Industrial Solvents in Drinking Water at US Marine Corps Base Camp Lejeune: A Cohort Study. *Environ Health Perspect*. 2024 Oct;132(10):107008. doi: 10.1289/EHP14966. Epub 2024 Oct 24. PMID: 39446420; PMCID: PMC11500795.

experienced at Camp Lejeune is more likely than not a risk factor for NHL.

This ends my supplement to my December 9, 2024 general causation report. I reserve the right to update or amend the opinions contained herein based on new or additional evidence not currently available.

Respectfully,

A handwritten signature in dark ink, appearing to read "Howard Hu", written in a cursive style.

Howard Hu, M.D., M.P.H., Sc.D.  
January 31, 2025