

June 25, 2020

**Via Electronic Mail**

Matt Prater, Branch Chief  
Drinking water Branch Office of Water Quality  
Indiana Department of Environmental Management  
100 N. Senate Avenue  
Indianapolis, IN 46204  
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Re: Town of Andrews Public Drinking Water

Dear Mr. Prater:

I write on behalf of the Town of Andrews (“Town”). Pursuant to IDEM’s request, on June 22, 2020, at approximately 2:00 p.m., the Town shut down Municipal Well 1, and stopped using it for any purpose. In your June 24, 2020 letter, you also asked the Town to flush the distribution system in order to remove the vinyl chloride that IDEM discovered in the Town’s drinking water. The Utilities Department is currently working to determine the best way to flush the system without damaging its water lines. They cannot simply drain the system, because it would cause voids within the lines, and could damage them and also lead to an automatic Boil Water Order because of possible bacteria infiltration. As you acknowledged in your letter, the Town cannot responsibly lift the “Do Not Drink” Order until the system wide flush (to remove vinyl chloride) has been completed.

The Town only has three wells in its Wellfield; it has no other available sources of water. You should be aware that because IDEM has instructed the Town to shut down Municipal Well 1, the Town no longer has adequate water pressure to properly fight fires. IDEM was informed of this fact during its site visit on June 22, 2020. Mr. Colin Bullock told IDEM Inspectors Alan Esko and Mitt Denney that Wells 2 and 3 did not provide adequate water pressure for the Town’s Fire Department. Esko told him to shut it down anyway. Shortly after IDEM instructed the Town to shut down Well 1, the Fire Department ran into problems refilling its tanker trucks due to a lack of pressure. (Affidavit of Thomas Wuensch, Ex. #1, ¶ 13.) The pressure was so low that the Fire Department could not even use its garden hose to rinse off the fire hoses. (*Id.* at ¶ 14.)

Because the Town is now utilizing just Wells 2 and 3, Thomas Wuensch, the Chief of the Andrews Fire Department, does not believe that there is enough water pressure to keep the tanker trucks full of water in the event of a fire. Mr. Wuensch is also concerned that the Fire Department will not be able to use the Town’s fire hydrants because there is not enough water coming from Wells 2 and 3. (*Id.* at ¶¶ 15–18.)

The current emergency situation involving the Town's Wellfield stems from Raytheon's decades old contamination and an apparent lack of oversight by IDEM concerning Raytheon's failure to remediate its plume. Raytheon's contamination was detected in the Town's Wellfield over twenty-seven years ago. (Voluntary Remediation Program Application, pp. 4, 6.) It should have been cleaned up long ago.

The Town is now in an impossible situation because it needs Well 1 to fight fires and serve its residents, yet IDEM has ordered the Town not to use Well 1 because the water is unsafe. (Affidavit of John Harshbarger, Ex. #3, ¶ 32.)

When IDEM collected its samples of Well 1 this Monday, it detected vinyl chloride at the highest levels that have ever been detected in that well. As I'm sure you know, "vinyl chloride is a known human carcinogen and has one of the lowest drinking water standards of any regulated chemical." (Affidavit of Dr. James Wells, Ex. #4, ¶ 3.)

According to IDEM's lab report, the vinyl chloride in Well 1 was 30.3 µg/L, which is 15 times higher than EPA and Indiana drinking water standard or maximum contaminant level (MCL) of 2.0 µg/L. IDEM also detected cis-1,2-DCE in Well 1 at 131 µg/L (nearly double the EPA and Indiana MCL of 70 µg/L), illustrating the severely contaminated condition of this well. (*Id.* ¶ 7.)

During its sampling event last Monday, IDEM also collected four samples from the Town's "finished" drinking water supply. The sample collected from the faucet in the lab at the end of the Town's water distribution system contained vinyl chloride at 2 µg/L, indicating the entire Town's drinking water was previously contaminated at unsafe drinking levels. (*Id.* ¶ 8.)

According to Raytheon, its air stripper began malfunctioning on June 4, 2020. (Letter from John Baron, Ex. #5.) Neither Raytheon nor IDEM warned the Town of the dangerous situation. IDEM and Raytheon's failure to warn the Town that the air stripper was down resulted in needless exposure to the Town's residents of a known human carcinogen.

As explained by Dr. James Wells:

My concerns have been confirmed by sampling conducted by IDEM on June 22, 2020. During this sampling event, the air stripper had apparently been repaired, thus it was operating at the time. The IDEM lab report is included here as Attachment 1. The sample from MW-1 contained vinyl chloride at 30.3 µg/L (15 times higher than EPA and Indiana drinking water standard or maximum contaminant level [MCL] of 2.0 µg/L) and cis-1,2-DCE at 131 µg/L (nearly double the EPA and Indiana MCL of 70 µg/L), illustrating the severely contaminated condition of this Well. The other two Wells also contained UTC's contamination, although at lower levels.

The tap water collected from the lab building at the Town's Wastewater Treatment Plant (IDEM sample ID DK35118; see Attachment 1) contained vinyl chloride at a concentration of 2.0 µg/L, equal to the MCL. This sample also contained cis-1,2-DCE at 19.1 µg/L. According to town records, the wastewater treatment plant is at the end of the



line of the Town's water service. In my opinion, water in this portion of the distribution network was likely residual from the period of time (days earlier) in which MW-1 was operating but the air stripper was not functioning properly and the town's residents were being supplied with water that equaled or exceeded the federal and state drinking water standard. Water samples from locations closer to the water tower (such as the elementary school) contained lower contaminant concentrations (not exceeding the drinking water standard) because this was "newer" water that had been delivered into the water distribution network after the air stripper had been brought back on line. These findings show that the current water supply system is vulnerable to exceedances of water quality standards due to the unreliable performance of UTC's air stripper. These findings also show that even if the air stripper is down for a short period of time, the people of Andrews must live with the consequences for (at minimum) a number of days until the offending water is flushed from all portions of the distribution system. All of the tap water samples collected on June 22 contained cis-1,2-DCE (at levels below the drinking water standard). This finding illustrates the limitations of the air stripper, which was not able to completely remove this VOC from the water supply.

(Ex. #4, ¶¶ 7–8.)

In 2015, the Town discussed moving the Town's well system to an uncontaminated aquifer. (Ex. #6.)

According to a newspaper article that discusses the proposal, and the Town Council members who were involved in those discussions, IDEM told them that it did not approve of moving the Town's well system. (*Id.*)

IDEM representative Jeffery Kavanaugh apparently told the Town that the plume of contamination does not reach towards the well system, and the Town dropped the issue. (*Id.*)

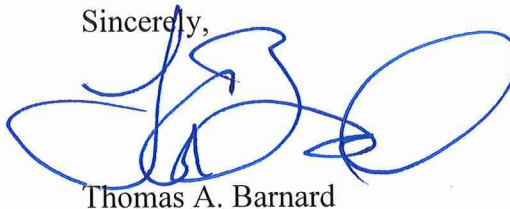
This statement was demonstrably incorrect, as shown by Stantec's own plume map for dissolved vinyl chloride dated March 2015, which was sent directly to Mr. Kavanaugh. (Ex. #7, at Figure 7.) (As you know, Stantec is Raytheon's consultant.) Stantec's water samples from March 25, 2015 showed vinyl chloride in Well 1 at 9.7 µg/L, and cis-1,2 DCE at 146 µg/L. (*Id.* at Table 4, p. 13.) Clearly, Raytheon's plume of contamination had reached the Town's Wellfield.

Please explain all reasons for IDEM's decision not to let the Town move the Wellfield away from Raytheon's contamination in 2015. Please also explain why Mr. Kavanaugh told the Town that the plume did not impact its Wellfield when IDEM has known that the Wellfield has been impacted since at least 1993. Also, please explain why IDEM did not warn the Town of the air stripper malfunction in early June, 2020. Finally, please provide a timeline for providing the information we requested in our letter to you dated June 23, 2020.

I look forward to hearing from you.

Matt Prater  
June 25, 2020  
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Sincerely,



Thomas A. Barnard

Enclosures

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