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Date: January 19, 2023

Our Ref: 30135605 Subject: Response to Potable Well Sampling Area (PWSA)
Deep Well Design Plan and Deep Aquifer Long-Term Monitoring Plan
JCI/Tyco FTC PFAS, 2700 Industrial Parkway South, Marinette, WI
BRRTS # 02-38-580694

Dear Ms. Sellwood,

Thank you for your letter dated November 18, 2023. Tyco is grateful for the Wisconsin Department of Natural Resources (WDNR) providing a pathway for deep drinking water wells that can become a “permanent” safe drinking water solution. We also appreciate your approval to construct the deep aquifer monitoring wells using the same design as the deep drinking water wells.

Response to WDNR Recommendations

We concur with the WDNR recommendations related to well design, construction, and monitoring.

DNR Recommendations for Deep Drinking Water Wells

- All analytical results related to groundwater collected from the deep drinking water wells will be compared to applicable drinking water standards. If there are no applicable enforceable groundwater regulations, then the results will be compared to enforceable drinking water regulations applicable to municipal water systems in Marinette, Wisconsin.
- Initial sampling of each well will be conducted prior to connection to the house to verify groundwater quality parameters and verify the treatment efficacy of the reverse osmosis (RO) unit.
- As requested, additional monitoring will be implemented at the newly installed deep drinking water wells (see Table 1) for a period of one year to confirm water quality and maintenance schedule for the RO unit. Clear, written communication will also be provided to the homeowners following installation of the RO unit. Note: Tyco is contracting with Culligan to service the water softener and RO units, at no cost to the homeowner, for a period of 20 years.

DNR Recommendations for Deep Monitoring Wells

- For clarity, Tyco will refer to the monitoring wells installed into the deep bedrock as “deep monitoring wells.” All care will be taken during installation of deep monitoring wells to prevent per- and polyfluoroalkyl substances (PFAS) from entering the bedrock borehole. This will specifically be discussed with drillers prior to beginning any well installation activities.

- Tyco is installing the first three (3) deep monitoring wells this winter (in January) to allow for additional baseline sampling prior to installing the majority of the deep drinking water wells (which will commence in spring 2023). As requested, an interim action report will be submitted within 6 months following installation of the deep monitoring wells.
- All analytical results related to groundwater collected from the deep monitoring wells will be compared to applicable groundwater standards, if any. As Tyco has continued to do, the interim action report will also note the status of WDNR and Wisconsin Department of Health Services regulatory proposals.
- One additional deep monitoring well will be installed, if possible, near the center of the PWSA. The location is currently under evaluation and Tyco will provide an update on the location and status of this well in a subsequent submittal.
- Additional water quality parameters will be added to the deep monitoring wells to ensure these locations are representative of the deep drinking water wells. A subset of these parameters, anticipated to be major ions such as chloride, etc., will be added to the long-term monitoring to continue to serve as indicators of change (see Table 2). The actual water quality parameters to be used will be confirmed following sampling of the deep monitoring wells and comparison to the deep drinking water well results.
- Pressure transducers will be installed in the deep monitoring wells to allow for water level trend evaluation over time.

Response to WDNR Questions

The DNR suggested that Tyco be prepared to answer questions that may be posed during installation and monitoring of the deep drinking water wells and the deep monitoring wells. Tyco will be prepared to address these issues, if they arise. Tyco's approach to these questions are as follows:

- Question #1: What is the plan if an individual deep well has low production because of local variations in geology and transmissivity of the deep aquifer?

Answer: Tyco has committed to completing wells that have sufficient yield for normal household use, at least 1 gpm. Based on available data and discussions with multiple local drillers, finding sufficient water production capacity in the target depth range is highly likely. However, if a location does not meet the yield requirements at the target depth, the borehole may be continued deeper.

- Question #2: What is the plan if the in-home treatment system cannot achieve the design criteria or requires more frequent and costly maintenance than anticipated?

Answer: Tyco will do what is required to ensure the water meets applicable drinking water criteria, so residents have safe drinking water. The submitted in-home treatment system was based on observed groundwater conditions in the area. However, Tyco can and will adjust individual treatment systems based on each resident's analytical sample results as necessary. Any adjustments to maintenance schedule or treatment system components will be managed on a case-by-case basis. Note that Tyco is direct contracting with Culligan to service the water softener and RO units, at no cost to the homeowner, for a period of 20 years (until December 31, 2043).

- Question #3: What is the plan if monitoring results signal potential for PFAS migration into the deep aquifer? What parameters and criteria will be used as indicators of potential migration?

Answer: Tyco will monitor the deeper aquifer for PFAS with the deep monitoring wells. If one of the deep monitoring wells located near a deep drinking water well detects PFAS above the level of PFAS allowed under enforceable groundwater regulations (if there are no applicable enforceable groundwater

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regulations, the PFAS results will be compared to enforceable drinking water regulations that are applicable to municipal water systems in Marinette, Wisconsin), then Tyco will seek permission to test nearby individual deep drinking water wells. If such sampling detects PFAS above the level of PFAS allowed under enforceable groundwater regulations or enforceable drinking water regulations applicable to municipal water systems in Marinette, Wisconsin, then Tyco will work in cooperation with property owner and DNR to determine appropriate next steps for ensuring safe drinking water.

- Question #4: What is the plan if a homeowner does not want to abandon the existing drinking water well?

Answer: Proper abandonment of the existing drinking water well and any other wells on the property is part of the agreement homeowners sign when requesting a new well from Tyco.

Closing

As always, we are grateful for WDNR's support and encouragement to Tyco to continue the progress we've made with our neighbors towards building their requested deep wells.

Sincerely,
Arcadis U.S., Inc.

A handwritten signature in blue ink, appearing to read "Matt Coleman", with a long, sweeping flourish extending to the right.

Matt Coleman
Project Communications Manager

CC. Denice Nelson, JCI

Enclosures:
Tables

Table 1
Analytical Sampling Schedule
Replacement Drinking Wells
Tyco Fire Products LP
Marinette, Wisconsin



	Following Well Installation, Pre-Treatment Whole Well Sample	Following Treatment System Connection, Post-Treatment Water Sample (Q1)	Post-Treatment Water Sample (Q2) ²	Post-Treatment Water Sample (Q3) ²	Post-Treatment Water Sample (Q4) ³
Analytes					
PFAS	X	X	X	X	X
TAL Metals (6020) ¹	X	X			X
Rad 226+228	X	X	X	X	X
Sulfur	X	X			X
Sulfides	X	X			X
Major Ions ³	X	X			X
Uranium	X	X			X
Alkalinity	X	X			X

Notes:

1 = Hardness requested with metals

2 = Additional water quality parameters may be added, if needed, based on initial sampling results.

3 = Collected prior to annual maintenance

TAL = target analyte list

X = Parameter(s) included during sampling event

Table 2
Analytical Sampling Schedule
Deep Bedrock Monitoring Wells
Tyco Fire Products LP
Marinette, Wisconsin



	Following Well Installation	3 Quarterly Samples, Year 1 Following Well Installation	Semi-Annual Samples, Years 2 and 3 Following Well Installation	Annual Samples, Years 4 Through Site Closure Following Well Installation
Analytes				
PFAS	X	X	X	X
TAL Metals (6020) ¹	X	X		
Rad 226+228	X			
Sulfur	X			
Sulfides	X			
Major Ions	X	X		
Uranium	X			
Alkalinity	X			

Notes:

1 = Hardness requested with metals

TAL = target analyte list

X = Parameter(s) included during sampling event