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WISCONSIN DEPT. OF NATURAL RESOURCES

September 16, 2022

MS. DENICE NELSON
JOHNSON CONTROLS, INC
5757 N. GREEN BAY AVENUE
MILWAUKEE, WI 53209

Via Email Only to denice.karen.nelson@jci.com

SUBJECT: Response to Potable Well Sampling Program Annual Summary Report
April 1, 2021 to March 31, 2022
JCI/Tyco FTC PFAS, 2700 Industrial Parkway South, Marinette, WI
BRRTS #02-38-580694

Dear Ms. Nelson:

On August 8, 2022, the Wisconsin Department of Natural Resources (DNR) received the *Potable Well Sampling Program Annual Summary Report* for the period April 1, 2021 through March 31, 2022 ("2022 PW Summary Report") for the above-referenced site (the "Site"). The report was submitted by Arcadis U.S., Inc. (Arcadis) on behalf of Johnson Controls, Inc. and Tyco Fire Products LP (JCI/Tyco) and was accompanied by the appropriate fee of $425 required under Wisconsin Administrative Code (Wis. Admin. Code) § NR 749.04(1) for formal DNR review and response.

This letter includes an overview of the DNR's review of the 2022 PW Summary Report and provides JCI/Tyco with the DNR's comments, questions and recommendations. A letter with responses to the DNR's comments is requested within 30 days of the date of this letter.

Background

JCI/Tyco is investigating and responding to the discharge of per- and polyfluoroalkyl substances (PFAS) to the environment at the JCI/Tyco Fire Technology Center (FTC), located at 2700 Industrial Parkway South in Marinette, Wisconsin. The discharge occurred as the result of fire suppressant training, testing, research and development of PFAS-containing aqueous film forming foams (AFFF) at the Site starting in the early 1960s.

PFAS from the FTC have impacted private drinking water wells (i.e., potable wells) in the area. JCI/Tyco currently tests and provides alternative drinking water to residents in the Potable Wells Sampling Area (PWSA). The PWSA is depicted on Figure 2 in the 2022 PW Summary Report. To date, JCI/Tyco has sampled 173 wells and maintains 46 point of entry treatment (POET) systems in the PWSA. JCI/Tyco conducts the testing and maintains the POET systems according to the Potable Wells Long-Term Sampling Plan, which is updated semi-annually. JCI/Tyco submits an annual summary of the PFAS sampling results collected during the previous year or reporting period; the 2022 PW Summary Report is the third-annual report for the PWSA.

Summary of the 2022 PW Summary Report

The 2022 Summary Report summarizes the PFAS sampling results for the potable wells and POET systems completed between April 1, 2021 and March 31, 2022 (the "reporting period"). The report summarizes the work completed during the reporting period and includes the following data:

- Table 1: Identifies the 46 wells that currently have POET systems.[1]
- Table 2: Summarizes the PFAS sampling results from the reporting period for the following:
    - 50 potable wells (27 without a POET system and 23 with a POET system) and
    - 20 POET systems' effluent (18 were effluent-only samples and 2 were paired with sampling of the potable wells – WS-036 and WS-049).
- Table 3: Summarizes the PFAS analyte list and the current Wisconsin Department of Health Services' (DHS) recommendations for each PFAS compound[2].
- Figures 3, 4 and 5: Identify the wells in the potable well sampling program and distinguish which wells have a POET. The figures also identify the NR 141 monitoring wells proposed for the site investigation activities in and around the PWSA. The figures are separated based on depth of the potable wells; Figure 3 presents shallow wells (< 37 feet), Figure 2 presents the deeper wells (> 37 feet) and Figure 5 present the are wells where depth is unknown.

Changes of significance that occurred in the 2022 PW Summary Report relative to the 2021 PW Summary Report include:

- Removed the trend analysis for the potable wells and stated an intent to rely on data collected from Wis. Admin. Code ch. NR 141-compliant monitoring wells in the PWSA to evaluate trends of PFAS concentrations in groundwater.
- Removed the comparison of the results to the DHS Recommendations in Table 2 and Figures 3, 4 and 5.

DNR Review

The DNR reviewed the 2022 PW Summary Report and has the following comments, questions and recommendations.

1. Was the October 1, 2021, *Revised Long-term Potable Well Sampling Plan* used during the reporting period? Please clarify.
2. Why do the number of potable wells sampled - as summarized in Exhibit 1 - not match the number of potable wells with sampling results summarized in Table 2? Please explain. The DNR recommends providing a list of the well IDs for potable wells sampled during the reporting period for clarity.
3. Apart from WS-036 and WS-049, the POET systems' effluent data was not included for sampling events where the potable well was also sampled. The effluent sampling results should be included to document the drinking water results for residents with POET systems and to support the statement on page 6, "*Samples collected from the effluent of POETs are all below Table 3 values*". Please provide a summary for the effluent testing results for the 19 POET systems identified in Attachment A.

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[1] A total of 47 POET systems have been installed, but one was removed at request of owner.
[2] In June 2019, the DHS recommended the Cycle 10 groundwater standards for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) and in November 2020 the DHS recommended groundwater standards for 16 additional PFAS (Cycle 11). Together these comprise the current DHS Recommendations.

4. Why was the classification of the PFAS concentrations removed from Table 2 and Figures 3, 4 and 5 when compared to the data evaluation in the 2021 PW Summary Report? Please explain how the sampling results in the 2022 PW Summary Report are being evaluated <u>or</u> revise the tables and figures to distinguish if PFAS were detected in a potable well and to show whether detections of PFAS were above or below DHS Recommendations.
5. The DNR continues to maintain – as stated previously in the December 16, 2021 response letter – that the PWSA potable wells sampling results alone cannot be used to verify the conceptual site model (CSM) or to derive that the groundwater plume is defined. The DNR requests and recommends that the conclusions in any future PW Summary Reports be limited to evaluation of drinking water results and whether changes are needed to the *Long-Term Potable Well Sampling Plan* based on the results. For example, how can the conclusion on page 6 be made, "*The results…continue to validate the conclusions and analyses reported in the CSM for the FTC,*" when evaluations of the trends and the spatial distribution of relative-PFAS concentrations in the potable wells samples were removed from the 2022 PW Summary Report?

Next Steps:

- Within **30 days** of the date of this letter, please respond to DNR Review Items 1 - 5 with the requested information or explanation so that the DNR to complete its review and evaluation of the 2022 PW Summary Report. A Wis. Admin. Code ch. NR 749 review fee is <u>*not*</u> required with the response.
- Continue to monitor the wells and POET systems in accordance with the most current version of the approved *Long-Term Potable Well Sampling Plan*.
- Document the result for the for potable wells and POET system sampled between April 1, 2022, and March 31, 2023, in the next annual PW Summary Report **due July 31, 2023**.

As a reminder, this Site is subject to an enforcement action and therefore all submittals to the DNR under Wis. Admin. Code chs. NR 700-799 (unless otherwise directed by the DNR) must be accompanied by a Wis. Admin. Code ch. NR 749 fee per Wis. Stat. § 292.94. These fees are not pro-ratable or refundable per Wis. Admin. Code § NR 749.04(1). If you have any questions about whether to include a fee with a submittal, please contact DNR staff prior to submitting a document without a fee.

The DNR appreciates your efforts to investigate and remediate this Site. If you have any questions about this letter, please contact me, the DNR Project Manager, at (608) 622-8606 or Alyssa.Sellwood@wisconsin.gov.

Sincerely,

Alyssa Sellwood

Alyssa Sellwood, PE
Complex Sites Project Manager
Remediation & Redevelopment Program

Attachments: Attachment A: Summary of Wells with Missing Effluent Data

cc: Jodie Peotter, DNR (via email: Jodie.Peotter@wisconsin.gov)
Kyle Burton, DNR (via email: Kyle.Burton@wisconsin.gov)

Attachment A: Summary of Wells Missing POET Effluent Testing Results

Well ID	Sampling Dates (see Note)				
WS-007A	4/17/2021	8/18/2021	11/11/2021	1/18/2022	
WS-013	11/19/2021				
WS-019	5/26/2021				
WS-041	10/12/2021	12/14/2021	3/9/2022		
WS-042	7/1/2021	11/4/2021	1/12/2022		
WS-060	10/28/2021	1/18/2022			
WS-062	6/30/2021	9/9/2021	10/12/2021	2/8/2022	
WS-067	11/11/2021				
WS-068	6/15/2021	9/15/2021	12/4/2021	3/8/2022	
WS-090	4/1/2021 1/12/2022	4/29/2021 3/8/2022	6/1/2021	8/18/2021	12/2/2021
WS-092	4/15/2021	8/4/2021			
WS-096	1/27/2022				
WS-106/106R	4/29/2021	8/31/2021	11/24/2021	12/21/2021	2/8/2022
WS-121B	11/22/2021	2/16/2022			
WS-129	10/26/2021	1/11/2022	3/15/2022		
WS-133	5/18/2021				
WS-146A/146AR	9/15/2021	11/1/2021	12/15/2021	3/15/2022	
WS-152	6/23/2021	7/27/2021	11/3/2021	1/26/2022	
WS-163	6/22/2021	9/15/2021	11/19/2021		

Note:
The sampling dates are from Table 2 in the 2022 PW Summary Report and represent the dates when the POET Influent (i.e., the potable well) was reported but the corresponding effluent sampling results were not.