

RE: 5/21 Town of Peshtigo Monthly Board Meeting

Sellwood, Alyssa A - DNR <alyssa.sellwood@wisconsin.gov>

Mon 5/20/2024 8:32 AM

To: Town of Peshtigo Chair <topchair@townofpeshtigo.org>

Cc: Thistle, Jodie M - DNR <jodie.thistle@wisconsin.gov>

Good Morning Jennifer

In the updates for the town's April board meeting, we had indicated that two of JCI/Tyco's submittals were under DNR's review. Those reviews are now complete, and the DNR's response letters can be found at the links below.

- [Response to the Monitoring Plan for Groundwater and Surface Water around the FTC.](#)
- [Response to the Revised Comprehensive Alternative Water Management Plan](#)

Thanks for continuing to share these updates. Please reach out if you have any questions or concerns.

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Alyssa Sellwood, PE (WI)

Phone: 608-622-8606

Alyssa.Sellwood@wisconsin.gov

From: Town of Peshtigo Chair <topchair@townofpeshtigo.org>

Sent: Monday, May 13, 2024 8:23 PM

To: Sellwood, Alyssa A - DNR <alyssa.sellwood@wisconsin.gov>

Subject: 5/21 Town of Peshtigo Monthly Board Meeting

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Hi Alyssa,

The Town of Peshtigo monthly board meeting will be next week Tuesday in the event you have any updates to share.

Thank you!

Jennifer Friday

Town of Peshtigo Chairperson



April 17, 2024

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 *Interim Long Term Monitoring Plan for Groundwater and Surface Water*
JCI/Tyco FTC PFAS, 2700 Industrial Parkway South, Marinette, WI
BRRTS #02-38-580694

Dear Ms. Nelson:

On Mar. 15, 2024, the Wisconsin Department of Natural Resources (DNR) received the *Interim Long Term Monitoring Plan for Groundwater and Surface Water* (the “Interim Monitoring Plan”) for the above-referenced site (the “Site”) that was submitted by Arcadis U.S., Inc. (Arcadis), on behalf of Johnson Controls, Inc. and Tyco Fire Products LP (JCI/Tyco). The Interim Monitoring Plan was accompanied by the fee required under Wisconsin Administrative Code (Wis. Admin. Code) § NR 749.04(1) for DNR review and response.

The DNR reviewed the Interim Monitoring Plan and understands that the objective is to start an evaluation of trends in contaminant concentrations at certain groundwater and surface water monitoring locations while JCI/Tyco continues to complete its broader site investigation. As stated in its June 23 and Nov. 17, 2023 letters, the DNR does not agree that the nature, degree and extent of PFAS contamination has been sufficiently characterized along all migration pathways at the Site, and thus JCI/Tyco must conduct additional work to close data gaps to complete the site investigation (Wis. Admin. Code ch. NR 716). Monitoring for trends at locations in and around where contamination has been detected at the Site can commence while the extent of contamination is still being investigated. For this reason, the DNR agrees to JCI/Tyco’s Interim Monitoring Plan. The DNR also agrees to this interim plan knowing that JCI/Tyco intends to update it based on findings from future sampling activities. The DNR recommends a few modifications to the Interim Monitoring Plan herein. While incorporation of these recommendations may not result in a complete site investigation, they may result in further progress in that regard.

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.

JCI/Tyco’s site investigation activities for the PFAS contamination have been documented in seven prior reports¹. Additional work is needed for JCI/Tyco to meet the requirements of Wis. Admin. Code ch. NR 716 for a

¹ Reports documenting prior progress in the SI include:

- *Site Investigation Report* – Sept. 28, 2018 (Posted to BRRTS Oct. 4, 2018)
- *Data Summary Report* – Mar. 8, 2019 (Posted to BRRTS Mar. 13, 2019)
- *Southern Area Groundwater Evaluation Report* – Mar. 20, 2020 (Posted to BRRTS Apr. 10, 2020)

complete site investigation. On Aug. 24, 2023, JCI/Tyco submitted an Additional Site Investigation Work Plan (SI Work Plan), to which the DNR responded on Nov. 17, 2023. The activities proposed in the SI Work Plan have not been completed to date, but it is the DNR's understanding that the additional field investigation and reporting proposed in the SI Work Plan will be performed by JCI/Tyco in the summer of 2024. Completion of these activities may not result in a complete site investigation, but they are expected to help JCI/Tyco make further progress in that regard.

Summary of the Interim Monitoring Plan

JCI/Tyco's Interim Monitoring Plan outlines a 5-year program for monitoring surface water and groundwater at certain locations around the Site with the following objectives:

- Document the stability and attenuation of site-related PFAS in groundwater.
- Verify that concentrations of site-related PFAS in surface water in Ditches A, C and D are decreasing.
- Establish a final long-term monitoring program at the end of the 5-year period.

The scope of work described in the Interim Monitoring Plan includes:

- Sample surface water semi-annually for PFAS at six locations (two each in Ditches A, C and D).
- Sample groundwater for PFAS at 84 existing monitoring wells and up to 14 new monitoring wells. The sampling frequency is summarized in Table 2 and varies by location.
- Measure water levels annually at eight surface water gauging points and at the 84 existing monitoring wells and up to 14 new monitoring wells noted above.
- Conduct the PFAS sampling and water level measurements concurrent with the monitoring for the groundwater extraction and treatment system (GETS) and the deep bedrock aquifer.
- Abandon the 14 monitoring wells that are south of Rader Road.
- Report out the results and any changes to the Interim Monitoring Program semi-annually in Years 1 and 2 and annually in Years 3, 4 and 5, for a total of seven reports. At the conclusion of the 5 years, JCI/Tyco anticipates submitting a final monitoring program for the Site.

DNR Review and Recommendations

The DNR approves the Interim Monitoring Plan with the recommended modifications provided below and with the understanding that this approval does not constitute agreement that JCI/Tyco has defined the extent of contamination along all migration pathways as required under Wis. Admin. Code § NR 716.11. Because the Interim Monitoring Plan is dynamic, JCI/Tyco may add monitoring locations to the plan based on the findings from future site investigation activities.

The DNR requests that JCI/Tyco incorporate the following recommendations into its Interim Monitoring Plan. Incorporation of many of these recommendations, while they may not result in a complete site investigation, may result in further progress in that regard.

-
- *Interim Site Investigation Report* – May 15, 2020 (Posted to BRRTS Jun. 5, 2020)
 - *Conceptual Site Model* – May 20, 2020 (Posted to BRRTS Jun. 5, 2020)
 - *Air Pathway Site Investigation Report* – Submitted as App. A to the Site Investigation Work Plan – Feb. 11, 2022
 - *Site Investigation Status Report* – Apr. 3, 2023

Monitoring Well Abandonment: The DNR does not recommend abandoning the monitoring wells south of Rader Road at this time. Rather, the DNR recommends including at least three of these monitoring wells in the Interim Monitoring Plan and leaving the others available for sampling or water level measurements for at least the duration of the dynamic 5-year monitoring program. The DNR also recommends adding a monitoring well at the depth where PFAS was detected at vertical aquifer profile (VAP) sampling location VAP-63. The recommended additions are summarized in the **Attachment A Table and Figure**. (If JCI/Tyco chooses not to incorporate this area in the Interim Monitoring Program, the DNR still recommends that the existing monitoring wells not be abandoned at this time.)

Monitoring Well Additions: The DNR recommends adding monitoring wells into the Interim Monitoring Plan, which are summarized in the **Attachment A Table and Figure**. This includes two existing bedrock monitoring wells and eight new monitoring wells in addition to the ones recommended above. The DNR also recommends adjusting the location of proposed monitoring well “K,” to be closer to vertical aquifer profile (VAP) sampling point VAP-35 (see **Attachment A Figure**).

Monitoring Well Subtractions: If JCI/Tyco would like to off-set some of the additions recommended above, the DNR has identified three monitoring wells currently included in the Interim Monitoring Plan where PFAS sampling is not necessarily needed (see **Attachment A Table**). These wells could be subtracted from the monitoring program at this time. The DNR also understands that JCI/Tyco may propose subtracting or reducing the sampling frequency at other monitoring wells during the 5-year monitoring period based on its evaluation of the PFAS sampling results.

Groundwater Sampling Frequency: JCI/Tyco proposed 2-years of quarterly sampling to be used in trend analysis for ten monitoring wells. The DNR recommends quarterly sampling used for trend analysis at the additional monitoring wells listed below in. (These additions could be offset by reducing the sampling frequency at other monitoring wells that JCI/Tyco proposed for quarterly sampling, also noted below.)

- Include monitoring wells PZ-28-75 (or new well “n”), PZ-61-11, VAP-73, “E” and “K.”
- Reduce frequency at monitoring wells PZ-26-11, PZ-60-20, PZ-78-74, MW-100-68, “C” and “G.”

Surface Water: Remove surface water sampling point SW-31 (at Ditch C) and add surface water sampling point SW-43 (at Ditch E) to the Interim Monitoring Plan. The reasons for these recommendations are noted below.

- Surface water sampling point SW-30 is also included in the Interim Monitoring Plan for Ditch C, and the PFAS results are similar, and thus redundant, to those for surface water sampling point SW-31.
- Sampling of surface water at Ditch E was not included in the Interim Monitoring Plan. However, because the concentrations of PFAS detected in Ditch E are similar to those detected in Ditch C, inclusion of surface water sampling point SW-43 is warranted to document PFAS trends in Ditch E.

Also, Table 3 and Figure 6 of the Interim Monitoring Plan identify surface water monitoring points SG-A1, SG-23, SG-50 and SG-53 as being part of the GETS monitoring plan. The DNR is not aware of these being part of the monitoring for the GETS. Please verify and update the table and figure, if needed.

Reporting: The DNR requests that JCI/Tyco complete the following when reporting the results for sampling conducted for the Interim Monitoring Plan.

- Include PFAS results for surface water sampling point SW-26 (Ditch A), which is being collected as part of the monitoring of the Ditch A treatment system.

- Include the GETS data collected from similar dates in presentations of the data (e.g., figures to depict the distribution of PFAS in groundwater) or as needed to evaluate the monitoring results.
- Report out on results from bedrock monitoring wells (figures and tables) as a distinct grouping and move PZ-1D and PZ-4D from the reporting for the GETS to reporting for the Interim Monitoring Plan.
- Include fluorotelomer sulfonates (FTSs) in evaluations used to derive conclusions from the data.

Next Steps

Submit a response to comments within **45 days** of receiving this letter and include a revised Interim Monitoring Plan with the submittal (Wis. Admin. Code § NR 716.17(1)). This response is needed to ensure that the Interim Monitoring Plan on the record for the project reflects JCI/Tyco's intended scope of work and documents the reasons why recommended modifications to the plan, if any, were not incorporated at this time. Unless JCI/Tyco would like to receive another review and response from the DNR on its revised Interim Monitoring Plan, JCI/Tyco does not need to include a Wis. Admin. Code ch. NR 749 review fee with its response. JCI/Tyco may begin implementing its Interim Monitoring Plan at any time and does not need to wait for further response from the DNR.

If you have any questions, please contact me at Alyssa.Sellwood@wisconsin.gov or (608) 622-8606.

Sincerely,



Alyssa Sellwood, PE
Water Resources Engineer
Remediation & Redevelopment Program

Attachments: Attachment A Table – DNR Recommended Additions to the Interim Monitoring Plan
Attachment A Figure – Copy of Figure 10 from JCI/Tyco's Apr. 2023 SI Status Report with
Proposed and Recommended New Well Locations Identified

cc: Jodie Thistle, DNR (via email: Jodie.Thistle@wisconsin.gov)

Attachment A Table
DNR Recommended Modifications to the Interim Monitoring Plan

Additional Monitoring (Outside of the Area included in Interim Monitoring Plan)

Monitoring Well ID	Existing	New	Notes
“u”		x	Monitoring well at VAP-63 (37-39)
PZ-37-12 (or PZ-36-19)	x		Groundwater flow path from losing section of Ditch A
PZ-37-29	x		Groundwater flow path from losing section of Ditch A
PZ-41-17	x		Further evaluate cause and significance of PFAS

Additional Bedrock Monitoring Wells

Monitoring Well ID	Existing	New	Notes
PZ-64-67	x		Not included in GETS monitoring plan
MW003D	x		Last monitoring point before Menominee River
“m”		x	Concentration and stability at FTC property boundary
“n”		x	Look for connecting flow pathway to Stanton Street

Additional Overburden Monitoring Wells

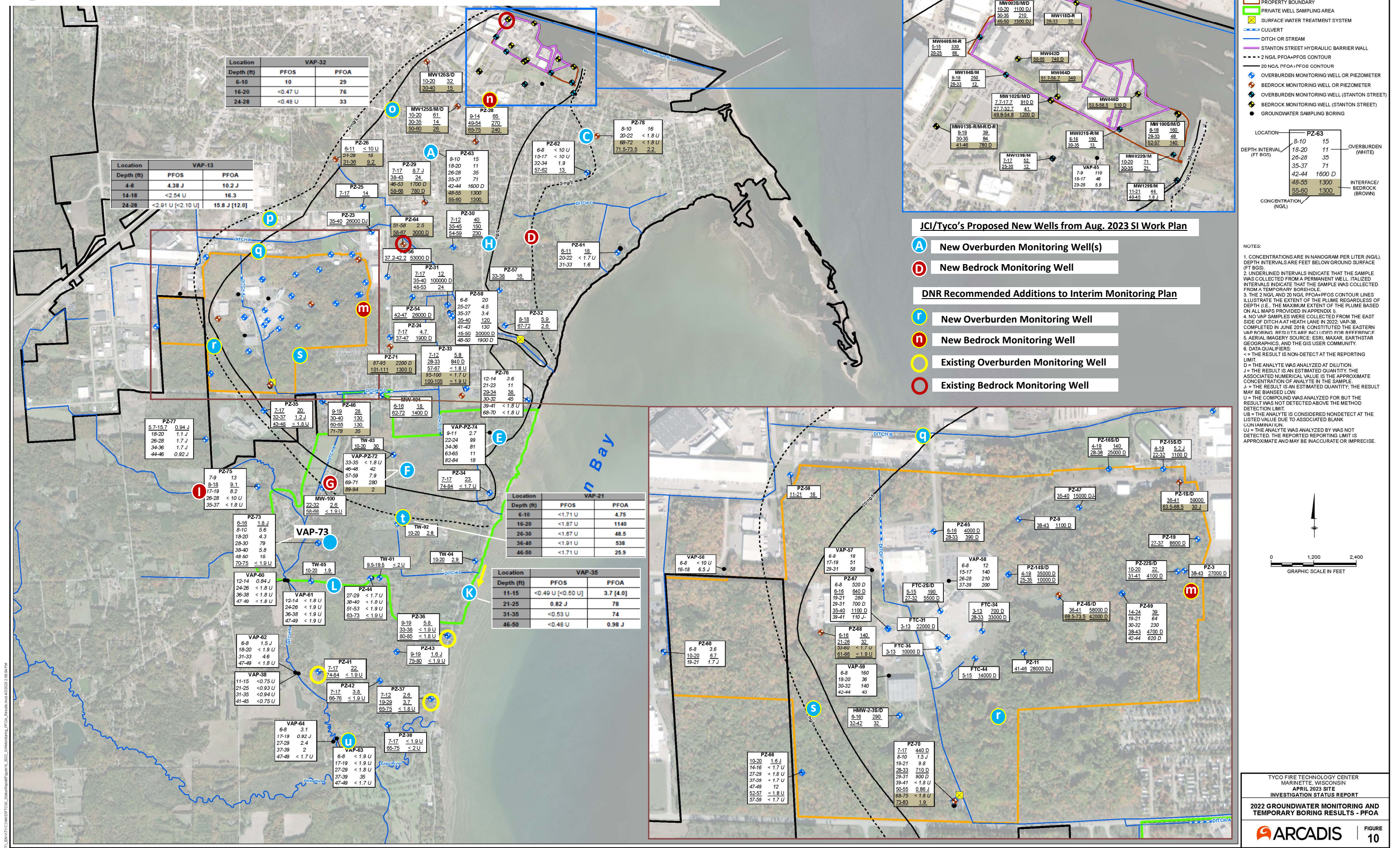
Monitoring Well ID	Existing	New	Notes
“o”		x	Stability at drawn boundary, see VAP-32 (16-20)
“p”		x	Stability at drawn boundary, see VAP-13 (4-16)
“q”		x	Stability at drawn boundary, b/w VAP-65 and Ditch B
“r”		x	Confirm drawn boundary, use VAP to select depth ¹
“s”		x	Concentration and stability at FTC boundary
“t”		x	Monitoring well at VAP-21 (deeper than 20’)

¹ PFAS was detected at 47 feet bgs at VAP-PZ-66, but a well was not set at this depth.

Monitoring wells where PFAS sampling not needed in Interim Monitoring Plan

Monitoring Well ID	Notes
PZ-35-48	PZ-35-37 to be sampled and it is representative of this next depth interval
TW-04	TW-02 upgradient at same shallow depth with similar PFAS results
TW-01	PZ-73-16 upgradient at similar shallow depth with similar PFAS results

Attachment A: Copy of Figure 10 from JCI/Tyco's Apr. 2023 SI Status Report with Proposed and Recommended New Well Locations Identified





May 8, 2024

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 *Revised Comprehensive Alternative Water Management Plan*
JCI/Tyco FTC PFAS, 2700 Industrial Parkway South, Marinette, WI
BRRTS #02-38-580694

Dear Ms. Nelson:

On April 1, 2024, the Wisconsin Department of Natural Resources (DNR) received the *Revised Comprehensive Alternative Water Management Plan* (the "Revised CAWMP") for the above-referenced site (the "Site")¹ that was submitted by Arcadis U.S., Inc. (Arcadis), on behalf of Johnson Controls, Inc. and Tyco Fire Products LP (JCI/Tyco). The Revised CAWMP was accompanied by the fee required under Wisconsin Administrative Code (Wis. Admin. Code) § NR 749.04(1) for DNR review and response.

The DNR reviewed the Revised CAWMP and requests that JCI/Tyco respond to the comments in this letter. The Revised CAWMP addresses drinking water in JCI/Tyco's Potable Well Sampling Area (PWSA). As stated in its June 23 and Nov. 17, 2023 letters, the DNR does not agree that the nature, degree and extent of PFAS contamination has been sufficiently characterized along all migration pathways at the Site. The area covered by the CAWMP should extend beyond the boundaries of PWSA while JCI/Tyco conducts its site investigation and the area addressed by a final CAWMP should be based on the findings of a complete site investigation (Wis. Admin. Code § NR 708.05(4)(f)).

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 in the area. JCI/Tyco currently tests and provides alternative drinking water to residents in the PWSA. On May 8, 2020, JCI/Tyco submitted its original CAWMP for the PWSA to document its approach for providing alternative safe drinking water to residents in PWSA while a long-term drinking water solution was pursued. The Revised CAWMP incorporates JCI/Tyco's updates to the plan for the PWSA that have occurred since that time.

¹ The title of the report also references BRRTS #02-38-581955, which is connected to discharges at JCI/Tyco's 1 Stanton Street facility. However, in the introduction of the report, JCI/Tyco clarifies that BRRTS #02-38-581955 is not part of the of this Revised CAWMP.

Summary of the Revised Comprehensive Alternative Water Management Plan

The Revised CAWMP includes the following updates to the original plan:

- Increased the number of private wells tested from 171 to 173 and the number of point of entry treatment (POET) systems installed from 40 to 47.
- Added the Wisconsin Department of Health Services' (DHS's) current recommendations² for PFAS as the criteria used to evaluate water quality in the private drinking water wells.
- Discussed in Section 4 that while connection of properties in the PWSA to the city of Marinette public water system was recommended as the final long-term drinking water solution, to date, it has not received the necessary support and approvals to proceed.
- Incorporated the new option, offered starting in 2022, for residents to have JCI/Tyco construct a deep drinking water well to replace their existing drinking water well ("replacement wells").
- Changed that a POET system will be offered to residents in the PWSA for any resident whose drinking water is above the DHS current recommendations for PFAS to only those where a replacement well is not feasible.
- Updated criteria for when bottled water and/or POET system operations will cease, which are currently the following: homeowner request, property is vacant or replacement well installed and water quality confirmed.

DNR Review and Recommendations

The DNR reviewed the Revised CAWMP based on the changes made to the original and evaluated how JCI/Tyco addressed the comments that the DNR provided to the original plan on Nov. 16, 2020.

- Section 2.3 states that the PWSA is "demonstrative of the total area of potential effect from Tyco operations." The DNR does not agree that the extent of PFAS contamination along all potential migration pathways has been defined. JCI/Tyco must provide alternate water supplies to all persons whose water supply has been, or is likely to be, affected by the migration of contamination from the Site (Wis. Admin. Code § NR 708.05(4)(f)). The DNR maintains that the area where JCI/Tyco should be providing alternative safe drinking water goes beyond the boundaries of the PWSA and should be based on the findings, conclusions and areas where data gaps remain in the site investigation.
- Section 3.2, Section 5.2 and Section 6 as written, are unclear as to JCI/Tyco's plans for residents who currently have a POET system and choose to continue to use the POET system rather than receive a replacement well. JCI/Tyco must continue to provide alternative safe drinking water to these residents (Wis. Admin. Code § NR 708.05(4)(f)). (The DNR notes that the final CAWMP can be based on the findings and conclusions from a complete site investigation and site-specific information for each private well.)

² On April 10, 2024, the U.S. Environmental Protection Agency (EPA) announced new enforceable federal standards for six PFAS in drinking water. The DNR will formally request that the DHS update their health-based recommendations for the six PFAS to account for new scientific findings. The DHS anticipates their updated recommendations will be available during the second half of 2024.

- Section 3.3 discusses that JCI/Tyco is evaluating options for properties in city of Marinette that do not have connection to community water. This statement was included in the 2020 CAWMP, but the DNR is not aware of any on-going evaluations in that regard. Please provide an update on the residents in the city of Marinette that do not have access to a public water supply, if any, and what steps are being taken to provide these residents with access to safe drinking water. JCI/Tyco should be providing alternate water supplies to all persons whose water supply has been or is likely to be affected by the migration of contamination from the Site (Wis. Admin. Code § NR 708.05(4)(f)).
- Section 4.1 states “This alternative would have required a change in the City Charter or annexation of the PWSA into the City of Marinette. Neither option was approved by residents of the PWSA.” This statement is not entirely accurate or reflective of the complexity of the situation. The DNR recommends updating the last sentence.

JCI/Tyco also has a monitoring plan for private wells and POET systems in the PWSA and provides an update on this plan to the DNR every 6 months. The DNR acknowledges that some of the DNR's comments to the original CAWMP have been addressed by the details included in that monitoring plan.

Next Steps

The DNR requests that JCI/Tyco submit a response to comments within **45 days** of receiving this letter, and that this response include a proposed plan and schedule for future updates to the CAWMP. JCI/Tyco's future updates to the CAWMP should be for all persons whose water supply has been or is likely to be affected by the migration of contamination from the Site (Wis. Admin. Code § NR 708.05(4)(f)). Unless JCI/Tyco would like to receive another review and response from the DNR, JCI/Tyco's response to comments does *not* need to include a Wis. Admin. Code ch. NR 749 review fee.

If you have any questions, please contact me at Alyssa.Sellwood@wisconsin.gov or (608) 622-8606.

Sincerely,



Alyssa Sellwood, PE
Water Resources Engineer
Remediation & Redevelopment Program

cc: Jodie Thistle, DNR (via email: Jodie.Thistle@wisconsin.gov)