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Date: July 16, 2021
BRRTS No.: 02-38-580694
Our Ref: 30015290
Subject: Response to Comments – Response to 3rd Revised Long-Term Potable
Well Sampling Plan, Tyco FTC PFAS, 2700 Industrial Parkway South,
Marinette, WI

Dear Ms. Sellwood,

On behalf of Tyco Fire Products LP (Tyco), Arcadis U.S., Inc. (Arcadis) has prepared these Responses to Comments (RTC) made by the State of Wisconsin Department of Natural Resources (WDNR) on June 18, 2021, on the 3rd Revised Long-Term Potable Well Sampling Plan, Tyco FTC PFAS, 2700 Industrial Parkway South, Marinette, WI (the Site), BRRTS #02-38-580694, dated March 16, 2021 (LTMP).

Comments provided by the DNR are repeated below in *italicized font*, with Tyco's responses immediately following in regular font.

Prior Potable Well Sampling Plans

In its February 19, 2020 letter, the DNR directed JCI/Tyco to update the Sampling Plan to include the Expanded Site Investigation Area (ESIA), which extends beyond the boundaries of the PWSA. On June 1, 2020, JCI/Tyco notified the DNR that it would not perform the sampling of additional potable wells in the ESIA. Thus, on July 7, 2020, the DNR notified JCI/Tyco that the DNR would perform the potable well sampling required in the ESIA and seek cost recovery from JCI/Tyco. The DNR's sampling of potable wells in the ESIA is anticipated to wrap up by end of June 2021. Following this, the DNR will share the results, findings and conclusions from sampling in the ESIA with JCI/Tyco and provide direction on how to incorporate these findings and conclusions for the ESIA into JCI/Tyco's future updates to the Sampling Plan.

Tyco appreciates the data WDNR has shared related to the sampling efforts to date and we look forward to receiving the results, findings and conclusions of the WDNR sampling effort. Upon receipt of updated analyses, Tyco will incorporate WDNR's results with over 10,000 existing data points in support of a holistic evaluation of the site and surrounding areas. Consistent with the written statements in 2020, Tyco looks forward to understanding how WDNR will identify additional potential sources of PFAS in the community.

Cycle 11 Testing

On November 6, 2020, the Wisconsin Department of Health Services (DHS) recommended additional groundwater standards for PFAS, which brought the total number of PFAS compounds with recommended standards to 18 PFAS (“Cycle 11”). These 18 PFAS are included in the list of 36 PFAS compounds currently reported by the laboratory for this Site; however, in earlier phases of the sampling the laboratory may have only reported results for 6 or 14 PFAS compounds.

Tyco initiated a residential sampling program in December 2017 using an approved USEPA method and a Wisconsin-accredited laboratory consistent with the sampling plan approved by WDNR at that point. As testing methods improved, Tyco voluntarily increased the number of analytes so that all PWSA sampling activities since September 2020 have included that 36 PFAS compound analyte list.

DNR Review

The DNR agrees with JCI/Tyco’s plans for the 10-day notification of sample results to well users and the DNR and appreciates the submittal of biweekly updates to the electronic database after results have been validated. The DNR last received a summary report for the PWSA in June 2020, but it has not received the quarterly summary reports proposed by JCI/Tyco in Sampling Plan v.3. If JCI/Tyco continues to submit the 10-day notifications and biweekly database updates, then JCI/Tyco can provide an annual report instead of quarterly summary reports. Submit annual PWSA summary reports by July 31st of each year (starting July 31, 2021), which summarizes all available PFAS sampling results from potable wells and POET systems, and the POET maintenance activities completed since the last report.

Comment acknowledged. Sampling activities were suspended in March 2020 consistent with State and Federal guidance and with WDNR approval to minimize exposure pathways related to COVID-19. Quarterly Sampling Summary Reports were not warranted due to the lack of sampling. At the time comments were received on the 3rd Revised Long-Term Potable Well Sampling Plan, Tyco was preparing a quarterly report. Consistent with this comment, however, Tyco will continue providing 10-day notification letters and bi-weekly updates of the electronic database to WDNR and will submit an annual summary report by July 31 of each year.

Incorporate the DHS’s Hazard Index (HI) into the evaluation of sampling results

Comment acknowledged. While HI has a strong potential to confuse residents, and it is further clear that there is no science underpinning the proposed HI, Tyco nonetheless understands that WDNR has requested this assessment and will accommodate that request in the following fashion: Tyco will provide the HI assessment for drinking water wells within the PWSA that have not previously been sampled as part of the program. The HI assessment will categorize results as being “equal to or above” or “below” the 1 standard defined by WDNR. Tyco will not complete HI calculations for potable wells previously sampled as part of this or previous Long-Term Potable Well Sampling Plans. Drinking water sampling results are currently compared to recommended enforcement standards, which are not promulgated.

Sample the wells biannually if PFAS < Cycle 11 recommended groundwater standards and HI <1. Sample wells annually if PFAS ≥ Cycle 11 recommended groundwater standards and/or HI ≥ 1; these frequencies are consistent with those applied to the Potable Well Program.

On April 9, 2021, WDNR requested that Tyco re-assess the groundwater model outputs to remove data from wells without known construction details. This included 102 private drinking water wells within the PWSA. Testing the influent to the POET systems for data that could be deemed unusable for future

remedial decision-making when an interim action is already in place to protect human health is an unnecessary task. As previously described in the current LTMP, Tyco assessed each well with a POET system for at least one year prior to categorizing each POET into a conservative maintenance program based on observed breakthrough, not an exceedance of any standards. Using this approach, Tyco identified three POET systems that require quarterly monitoring. New POET systems are also monitored for at least a year to determine relevant trends and an appropriate maintenance plan. All other POET systems are maintained using a conservative maintenance plan in lieu of sampling. Tyco will continue to maintain POET systems as described in the March 2021 plan until a long-term potable water solution is in place.

Sample the effluent prior to GAC changeout for wells where one or more influent samples in the previous four sampling events had PFAS \geq Cycle 11 recommended groundwater standards and/or HI \geq 1.

Consistent with the statement above, Tyco will continue to maintain POET systems as described in the March 2021 plan until a long-term potable water solution is in place.

Add the Cycle 11 recommended groundwater standards to tables and highlight exceedances.

Comment acknowledged. Tyco will add Cycle 11 recommended groundwater standards to tables and highlight exceedances in future annual summary reports.

Identify potable wells where PFAS < Cycle 11 recommended groundwater standards and HI \geq 1.

Comment acknowledged. Consistent with previous statements, Tyco will not complete HI calculations for potable wells previously sampled as part of this or previous Long-Term Potable Well Sampling Plans; however, Tyco will continue to monitor potable wells relative to Cycle 11 recommended groundwater standards and offer POET systems as appropriate based on the criteria established in the current LTMP. Tyco will provide the HI assessment for drinking water wells within the PWSA that have not previously been sampled as part of the program. The HI assessment will categorize results as being “equal to or above” or “below” the 1 standard defined by WDNR.

Provide trend plots for wells where HI \geq 0.1 and identify wells with increasing or decreasing concentration trends. (The DNR recommends that JCI/Tyco plot the trends in concentration of PFOA + PFOS because results for these two compounds have been reported by the laboratory since testing began for the PWSA.)

Comment acknowledged. 0.1 appears to be a typo given the prior comments. Tyco will provide the HI assessment for drinking water wells that are new to the program with results categorized as being “equal to or above” or “below” the 1 standard defined by WDNR. Consistent with previous statements, Tyco will not complete HI calculations for potable wells previously sampled as part of this or previous Long-Term Potable Well Sampling Plans. Tyco will provide trend plots to identify wells with increasing or decreasing concentration trends focusing on PFOA + PFOS.

Prepare figures, like the one in Attachment A, which incorporate the following refinements:

- *Add “and/or HI \geq 1” to the criteria for the ‘yellow’ category.*
- *Distinguish which potable wells have a POET system.*
- *Highlight wells with increasing concentration trends on the figures.*
- *Prepare separate figures based on well depth zones: shallow, deep and unknown. (The DNR suggests using well depths of approximately 75 to 100 feet below ground surface to distinguish shallow from deep potable wells.)*

Alyssa Sellwood, P.E.
Wisconsin Department of Natural Resources
July 16, 2021

Comment acknowledged. Consistent with previous statements, Tyco will provide the HI assessment for drinking water wells that are new to the program with results categorized as being “equal to or above” or “below” the 1 standard defined by WDNR. Tyco will update future figures to indicate which wells have a POET system and identifying trends as appropriate. Tyco will also prepare separate figures based on well depths with three (3) categories – deep (minimum depth to be determined), shallow (maximum depth to be determined), and unknown depth.

Summarize findings and conclusions and discuss any correlations that can be drawn from well location and/or depth and patterns observed in the PFAS concentration, signatures or trends. Future updates to the Sampling Plan should be based on these evaluations. Examples of future changes to Sampling Plan may include:

- *If increasing trends are identified in a well or influent to a POET system with PFAS < Cycle 11 recommended groundwater standards and HI < 1, then add criteria to sample the well (or influent) at the same frequency as wells having PFAS ≥ Cycle 11 recommended groundwater standards and/or HI ≥ 1.*
- *If results are below certain criteria (e.g., laboratory RL) and a well is screened at a depth and location where increasing concentration trends are not observed or expected, then it may be reasonable to further reduce or stop sampling.*

Comment acknowledged.

Sincerely,
Arcadis U.S., Inc.



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