



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

June 26, 2017

LU-16J

Via Certified Mail 7016 3010 0000 7349 0645  
Return Receipt Requested

Mr. Joseph Janeczek, PE, ARM  
Director – Global Environmental Programs  
& Corporate Social Responsibility / EHS  
Johnson Controls  
9 Roszel Road  
Princeton, New Jersey 08540

Subject: Tyco Pump Down Program  
Tyco Fire Products, LP, Stanton Street Facility, Marinette, Wisconsin  
EPA RCRA Administrative Order Docket No. RCRA-05-2009-0007  
EPA Facility ID WID 006 125 215

Dear Mr. Janeczek:

On May 23, 2017, the United States Environmental Protection Agency (EPA) took part in a teleconference call with Tyco Fire Products, LP (Tyco) and the Wisconsin Department of Natural Resources (WDNR) regarding the Tyco Stanton Street Facility, Marinette, Wisconsin (Facility). Multiple topics were discussed during the call including the current groundwater conditions in the Salt Vault (cell 1) and 8<sup>th</sup> Street Slip (cell 2). These two cells are subject to the ongoing Pump Down Program (PDP) as established in the 2014 Agreement on Resolution (AOR), which requires Tyco to maintain groundwater levels at or below the Target Elevation of 577.5 feet (ILGD1985) (Target Elevation) to minimize the potential for arsenic-contaminated groundwater to leak through the barrier wall into the Menominee River. In the AOR, Tyco committed to achieve the Target Elevation as soon as practicable, but not later than by December 31, 2017. The PDP is following the methods described in the Revised Barrier Wall Groundwater Monitoring Plan Update (BWGWMPU) Revision 2, dated September 2015, and approved by EPA on September 15, 2015.

The AOR indicates that the means to accomplish the Target Elevation shall be by utilizing an aggressive temporary groundwater extraction program that relies principally on offsite water disposal. The water levels in both cells were at the Target Elevation by July 27, 2016. The AOR requires that Tyco restore the water levels in these cells as soon as possible if the levels are exceeded.

In 2016, Tyco managed extracted groundwater from cells 1 and 2 by conveying it aboveground from the extraction wells in each cell (EW-08 and EW-09 in cell 2; EW-10, EW-11, EW-13, and EW-14 in cell 1) to holding tanks located aboveground near cell 1. Groundwater was transferred from the holding tanks by truck to either the groundwater treatment system or offsite for disposal. In addition, Tyco used existing



extraction wells EW-02 (located in cell 2) and EW-03 (located in cell 1) to convey groundwater directly to the groundwater treatment system using the existing underground piping system. From approximately June 23, 2016 until August 11, 2016, Tyco sent an estimated 223,084 gallons of groundwater contaminated with arsenic from cells 1 and 2 to the groundwater treatment system when the treatment system's effluent measured 2,700 ug/L, exceeding WPDES permit standards of 680 ug/L. Tyco discontinued onsite treatment and shipped groundwater offsite from the PDP for the remainder of the drawdown phase (until October 24, 2016).

The PDP entered into a shutdown phase on October 24, 2016 with average groundwater levels in each cell below the Target Elevation (576.86 feet in cell 1; 575.68 feet in cell 2). Monthly groundwater level monitoring data since that time show that as of May 10, 2017, groundwater recharged in cell 1 to 581.82 feet and cell 2 to 579.15 feet. Based on these data, Tyco anticipates needing to manage seasonal groundwater recharge in cells 1 and 2 to comply with the AOR every year in the future.

During the May 23, 2017 conference call, Tyco stated it remains committed to meeting the Target Elevation in the long term, but that current infrastructure limitations prevent it from meeting the Target Elevation by December 31, 2017. Since the current infrastructure remains unchanged from 2016, Tyco predicts that aggressive pumping and offsite disposal this summer will lead to the groundwater recharging above the Target Elevation during a seasonal shutdown phase, thus putting Tyco out of compliance with the AOR. Instead, Tyco indicated that it prefers to pump from cells 1 and 2 only as needed to test the groundwater treatment system's ability to treat the more highly-contaminated groundwater from those cells, rather than aggressively pumping to meet the Target Elevation. The results of such testing would inform Tyco's decision for installing permanent underground infrastructure for year-round extraction and long-term compliance with the AOR. Tyco anticipates that the long-term infrastructure design would be one of the following:

- A) underground conveyance of groundwater from extraction wells in cells 1 and 2 to the groundwater treatment system for treatment below WPDES permit standards and discharge to the river;
- B) underground conveyance of groundwater from extraction wells in cells 1 and 2 to the groundwater treatment system for treatment and discharge, as well as to a holding tank located in a different part of the Facility for offsite disposal; or
- C) underground conveyance of groundwater from extraction wells in cells 1 and 2 to a holding tank located in a different part of the Facility from the groundwater treatment system for offsite disposal.

Ultimately, the ability to treat groundwater at the onsite groundwater treatment system will determine where underground conveyance piping will be installed and where groundwater is held in holding tanks.

These proposed approaches are not consistent with the AOR or the PDP methods approved in the BWGWMPU. The AOR requires Tyco to reach the Target Elevation as soon as possible before December 31, 2017 and to restore the groundwater to Target Elevation as soon as practicable if they are exceeded. Tyco must take aggressive measures, including offsite disposal, if necessary. Shutting the system down for the entire 2017 season is not in compliance with Tyco's AOR commitments. Furthermore, the PDP methods anticipated that offsite disposal for this year and long-term operations would be an option for meeting or maintaining the Target Elevation.

Based on the existing elevations of 581.82 feet and 579.15 feet (May 10, 2017) and Tyco's work last year, EPA estimates that Tyco can restore the water levels by September 8, 2017. This timeline allows adequate time for planning, three weeks for mobilization, and four weeks for aggressive pumping.

Consequently, EPA directs Tyco to submit within 30 days its plan for restoring the Target Elevation in Cells 1 and 2 by September 8, 2017. EPA will consider Tyco to be out of compliance with the Administrative Order and the AOR if it fails to timely submit an acceptable plan or meet the Target Elevation in cells 1 and 2 by September 8, 2017. Tyco should be able to assess the feasibility of incorporating additional extraction wells and additional volume of higher-arsenic-concentration groundwater to the groundwater treatment system simultaneously with achieving the target levels by September 8, 2017. Such an assessment will not be justification to extend the deadline for meeting the Target Elevation by September 8, 2017. If the results of this assessment show that the groundwater treatment system is not capable of complying with its WPDES permit or is undersized, Tyco must submit a contingency plan for long-term offsite groundwater disposal.

EPA looks forward to Tyco's cooperation in addressing these issues and meeting its agreement to maintain groundwater levels below the Target Elevation in perpetuity. We are available to meet or have a conference call regarding any concerns that you may have regarding this letter. If Tyco would like to request a meeting or conference call to discuss this correspondence, this request should be made no later than 14 calendar days from your receipt of this correspondence. Please contact Conor Neal of my staff at (312) 886-7193 or via e-mail at [neal.conor@epa.gov](mailto:neal.conor@epa.gov).

Sincerely,



Jose G. Cisneros, Chief  
Remediation and Reuse Branch  
Land and Chemicals Division

Ecc: Kristin DuFresne, WDNR  
Richard Clarizio, US EPA  
Richard Mator, Tyco International  
Jeff Danko, Tyco International  
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