



March 6, 2025

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

Via Email Only to [denice.karen.nelson@jci.com](mailto:denice.karen.nelson@jci.com)

**SUBJECT:** Approval to Manage Contaminated Soil under Wis. Adm. Code § NR 718.12  
JCI/Tyco 2700 Industrial Parkway South, Marinette, WI  
BRRTS #s 02-38-580694 and 03-38-001345

Dear Ms. Nelson:

On Feb. 7, 2025, the Wisconsin Department of Natural Resources (DNR) received the *Exemption Request for Beneficial Reuse of Soils* ("Feb. 2025 Soil Reuse Plan") for the above-referenced sites. The plan 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 fee required under Wisconsin Administrative Code (Wis. Admin. Code) § NR 749.04(1) for DNR review and response.

### **Background**

Tyco Fire Products LP owns the approximately 380-acre Fire Technology Center (FTC), located at 2700 Industrial Parkway South in Marinette, Wisconsin (the "Property"). JCI/Tyco is investigating and responding to the discharge of per- and polyfluoroalkyl substances (PFAS) and volatile organic compounds (VOCs) to the environment from the FTC. JCI/Tyco's response action for the PFAS contamination is tracked under BRRTS 02-38-580694 and for the VOC contamination is tracked under BRRTS 03-38-001345 (collectively herein referred to as the "Site").

JCI/Tyco's investigations and remedial activities for the Site and its construction activities on the Property generate soil containing contamination that must be properly managed. Previous requests and approvals to manage contaminated soil at the Site include:

- Sept. 10, 2021, request and DNR's Oct. 6, 2021, approval to manage contaminated soil excavated during the original construction of the Groundwater Extraction and Treatment System (GETS). This included approval to manage soils that met screening criteria at an approved location on the Property or to replace the soil back into the excavation from which it was removed.
- March 5, 2024, plan to temporarily stockpile soils generated by investigation and remedial activities for the Site or other construction activities on the Property, and to then characterize the soil to determine how it would be managed. Followed by a July 19, 2024, request and the DNR's Aug. 12, 2024, approval to permanently manage the soil that met screening criteria at two approved locations on the Property.

The screening criteria that have been used to date for decisions to allow soil management on-Site are 0.9 µg/kg perfluorooctanesulfonic acid (PFOS) and 5 µg/kg perfluorooctanoic acid (PFOA).

### **Summary of the Feb. 2025 Soil Reuse Plan**

In the Feb. 2025 Soil Reuse Plan, JCI/Tyco requested approval to place soil that is excavated during new construction activities for the GETS back into the excavation from which it was removed. This new request for on-Site management of soil was submitted to the DNR because the time period for the Oct. 6, 2021, approval has lapsed and the proposed management locations differ from those in the Aug. 12, 2024, approval.

The Feb. 2025 Soil Reuse Plan includes the following:

- Description of the activities generating soil to be managed on-Site.
- Soil testing results from the 21 proposed excavation areas; samples were analyzed for PFAS and VOCs.
  - Soil from eight locations had concentrations greater than the screening criteria for PFAS.
  - VOCs were only detected in one sample and the concentrations were below the Wis. Admin. Code ch. NR 720 residual contaminant levels.
- Locations on the Site, where soil will be managed. Soil excavated from areas that tested below screening criteria will be replaced into the excavation from which it was removed.
- Plans to temporarily stockpile soils as follows:
  - For soils excavated from areas that tested below screening criteria, the soil will be stockpiled adjacent to the excavation where it will be replaced.
  - For soils excavated from areas that tested above screening criteria, the soil will be temporarily stockpiled at the location and in accordance with the details provided in the March 5, 2024, plan.

#### **DNR Comments on Plans for the Stockpiles:**

The DNR concurs with JCI/Tyco's plans for temporary stockpiling of soils proposed in its Feb. 2025 Soil Reuse Plan *except* for the following:

- For temporary stockpiles of soil to be placed in the excavation from which it was removed, Wis. Admin. Code § NR 718.05(3)(c) requires that the soil be placed on an impervious base. (Called out here because the text on page 2 of the Feb. 2025 Soil Reuse Plan states that it will not be placed on impervious surface). The impervious base can be plastic sheeting, which is specified as the plan in the notes on Figures 3.1 and 3.2.
- For soil that is moved to the temporary stockpile location established in the March 5, 2024 plan, the pre-construction characterization that JCI/Tyco completed on these soils determines the final management plan. If this soil tested above the screening criteria for PFAS in situ and no treatment of the soil is planned, then the stockpile(s) of these soils should be disposed of off-site at an approved facility.

#### **Wis. Admin. Code § NR 718.12 Approval**

This letter grants an approval to manage contaminated soil on-Site under Wis. Admin. Code § NR 718.12. Approval is based on the following:

##### Compliance with Locational Criteria

Soil excavated for the new construction of the GETS that is replaced into the excavation from which the soil was removed will meet the locational criteria listed under Wis. Adm. Code § NR 718.12(1)(c), except for the following:

- Wis. Admin. Code § 718.12(1)(c)1. - Within a floodplain;
- Wis. Admin. Code § 718.12(1)(c)2. - Within 100 feet of a wetland or critical habitat area;
- Wis. Admin. Code § 718.12(1)(c)3. - Within 300 feet of any navigable river, stream, lake, pond or flowage;
- Wis. Admin. Code § 718.12(1)(c)5. - Within 3 feet of the high groundwater level.

Grant of exemption to Wis. Admin. Code § NR 718.12(1)(c)1., 2., 3. and 5.

The DNR grants an exemption to these locational standards in consideration of the factors set for in Wis. Admin. Code § NR 718.12(1)(d). The screening levels of 0.9 µg/kg PFOS and 5 µg/kg PFOA were derived by Arcadis in the 2020 Conceptual Site Model report for protection of groundwater to 20 parts per trillion (ppt) for PFOA and PFOS. The locations proposed for on-site management have concentrations of PFOA and PFOS in the groundwater greater than 1,000 ppt, such that placement of soil back into its original excavation will result in no net harm to the environment.

Characterization of Soil to be Excavated

On December 18, 2024, JCI/Tyco collected a soil sample from each proposed excavation area. A total of approximately 2,000 cubic yards of soil are proposed for excavation. Soil samples were analyzed for contaminants previously detected or expected to be present at the Site (i.e., PFAS and VOCs). Based on an estimated volume of planned excavated soil, and a sampling frequency of approximately one sample per 100 cubic yards, the sampling protocol described in Wis. Admin. Code § NR 718.12(1)(e) was met.

Assessment of Risk Posed by Soil Management

The reuse areas are all on property owned and controlled by JCI/Tyco. The management of soil proposed in the Feb. 2025 Soil Reuse Plan will not increase the risk to human health or the environment. The concentrations of PFAS in the approximate 100 cubic yards of soil to be reused in a respective excavation is expected to have the same characteristics as in the bulk volume of soil surrounding the excavation area. These concentrations are below the industrial default Wis. Admin. Code NR 720 direct contact residual contaminant levels (RCLs) for PFOA and PFOS, which are 24.6 µg/kg<sup>1</sup> and 58 µg/kg, respectively. In addition, the locations proposed for on-site management have concentrations of PFOA and PFOS in the groundwater greater than 1,000 ppt, such that placement of soil back into its original excavation will result in no net harm to the environment.

Soil Management Plan and Notice Provided Prior to Commencing Soil Management Activities

The soil management plan as defined by Wis. Admin. Code §§ NR 718.12(2)(b) and (c), was provided to the DNR at least 7 days prior to commencing the proposed soil management.

Other Information

- 1) Any hazardous substance discharge discovered during soil management activities must be reported to the DNR following the requirements of Wis. Admin. Code ch. NR 706.
- 2) This approval is granted under Wis. Admin. Code § NR 718.12 and applies only to the activities described in the Feb. 2025 Soil Reuse Plan. Any contaminated soil or solid waste that is excavated or otherwise disturbed at the Site, not covered under this or another approval, must be managed in compliance with the requirements of Wis. Admin. Code chs. NR 500 through NR 599. The management of contaminated soil and solid waste on a property that does not comply with these rules may be considered a hazardous substance discharge or environmental pollution and would be required to be addressed by the process outlined in Wis. Admin. Code chs. NR 700 to NR 799.
- 3) Contaminated soil management activities approved by this letter are for a period not to exceed 2 years from the date of this letter. JCI/Tyco may request extension(s) to this period of approval.

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<sup>1</sup> The concentration of 24.6 µg/kg is the default RCL for PFOA based on non-cancer risk. The current default RCL for PFOA, based on cancer risk from the ingestion of soil, is 0.078 µg/kg, which may not be practicable.

- 4) Submit documentation of soil management activities within 60 days of the completion of this project that complies with the requirements of Wis. Admin. Code § NR 724.05(2) and § NR 724.15(3). Include:
  - Reference to this approval letter and description of any changes made to the planned management activity and an explanation as to why they were necessary.
  - Documentation of final quantity and location where soil was managed on-Site.
  - Any field observations or results of monitoring conducted during the management activity.
  - Documentation for the disposal of excavated soil that was disposed off-site at an approved facility.
  
- 5) JCI/Tyco is responsible for obtaining any local, federal or other applicable state permits to carry out the project.

If you have any questions, please me at [Alyssa.Sellwood@wisconsin.gov](mailto:Alyssa.Sellwood@wisconsin.gov) at (608) 622-8606.

Sincerely,

A handwritten signature in cursive script that reads "Alyssa Sellwood".

Alyssa Sellwood, P.E.  
Water Resources Engineer  
Remediation & Redevelopment Program

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