

Mr. Michael Schmoller
Wisconsin Department of Natural Resources
South Central Region
3911 Fish Hatchery Road
Fitchburg, WI 53711

Subject:

Groundwater Extraction and Treatment System (GETS) Construction Documentation Report, Madison-Kipp Corporation (MKC), 201 and 209 Waubesa Street, Madison, Wisconsin. Facility ID No. 113125320, Wisconsin Pollutant Discharge Elimination System (WPDES) Permit WI-0046566-6, BRRTS No. 02-13-001569.

Dear Mr. Schmoller:

On July 14, 2015, MKC began operation of a GETS to facilitate the removal of volatile organic compound (VOC) mass in addition to providing hydraulic containment of VOCs in groundwater in order to minimize off-site VOC migration. The GETS is currently operating under WPDES permit number WI-0046566-6. This letter documents completion of the GETS in accordance with Wisconsin Administrative Code NR 724 for remedial and interim action design, implementation, operation, maintenance and monitoring requirements, as well as compliance with WPDES sampling requirements and Wisconsin Administrative Code NR 445 for control of hazardous pollutants.

Site Background and History

The MKC facility is located at 201 Waubesa Street with the newly installed GETS building at 209 Waubesa Street in Madison, Wisconsin (Site). The Site is located in the southwest quarter of Section 5, Township 7 North, Range 10 East in Dane County. The location of the Site is illustrated on a topographic quadrangle presented as Figure 1.

Environmental investigation and remediation activities have been ongoing since 1994. Activities have included the investigation and remediation of tetrachloroethene in groundwater. A monitoring well network has been established on and off site to evaluate groundwater trends and the extent of contamination. MKC has implemented the GETS to facilitate the removal of VOC mass in addition to providing hydraulic containment of VOCs in groundwater in order to minimize off-site VOC migration as presented in the *Groundwater Remedial Strategy* letter dated October 15, 2013 and approved by the Wisconsin Department of Natural Resources (WDNR) in electronic correspondence dated October 16, 2013.

Imagine the result

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ENVIRONMENT

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November 19, 2015

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Our ref:

WI001368.0027

Remedial Action

As proposed in the *Groundwater Remedial Strategy* letter dated October 15, 2013 the following remedial actions have been taken:

- Installation of one groundwater extraction well (GWE-1) in the northern parking lot of the MKC facility to a depth of 186.2 feet below land surface. The extraction well is screened from 60.0 to 175.0 feet below land surface.
- The GETS was installed in accordance with the system design drawings prepared on August 8, 2014. The Building Design drawings were submitted to the City of Madison Department of Planning & Community & Economic Development for the purpose of obtaining a Building Permit which was approved on October 24, 2014. As-built design drawings reflecting any variations from the original design are included as Attachment A.1 through A.7. These include red-line drawings from Benninger Concrete for the building foundation and floor drawings, KSW Construction for the building structure, MKC for the building and GETS electrical equipment, H & H Industries, Inc. for the building and GETS mechanical equipment, and ARCADIS for the GETS civil, mechanical, process and panel drawings.
- A pumping test was conducted at the Site from July 14 to 17, 2015 to confirm the data collected during the step test in 2014, and to determine a sustainable production rate for GWE-1. The results of this pumping test confirmed the 45 gpm flow determined during the step test does achieve sufficient drawdown and induces hydraulic influence. The *GWE-1 Constant Rate Pumping Test Evaluation* is included as Attachment B.
- A *Performance Monitoring Plan* was developed to present monitoring activities necessary to evaluate the ongoing operation of the GETS. The *Performance Monitoring Plan* is included as Attachment C. The results of the performance monitoring will be included in the Site semi-annual reports.

System Operation

During system startup activities, the presence of sodium permanganate was observed in extracted groundwater via visual observation of light pink water. The color observed is from residual sodium permanganate that was previously injected into the subsurface during remedial activities. A neutralization plan utilizing hydrogen peroxide was provided to the WDNR on July 8, 2015, and was approved electronically on July 9, 2015.

The neutralization of the extracted groundwater is completed by the addition of approximately 2 gallons per day of 30% industrial grade hydrogen peroxide solution to the process water stream. The concentration and quantity of hydrogen peroxide may be modified as needed to neutralize the extracted groundwater. These GETS changes are included in the drawings in Attachment A.

Treated groundwater is collected routinely from the GETS effluent in accordance with the WPDES permit for the Site. The routine effluent compliance monitoring is submitted in monthly Discharge Monitoring Reports to the WDNR.

Treated vapor effluent at the Site is also routinely collected. The Site effluent includes the combined flow from the GETS and the existing soil vapor extraction (SVE) system on Site. The vapor effluent is several orders of magnitude lower than the emissions criteria defined in the Wisconsin Administrative Code NR 445, as presented in the latest *SVE Progress Report* submitted to the WDNR on September 30, 2015.

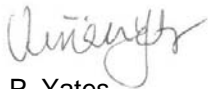
An Operation, Maintenance, and Monitoring Plan for the GETS is included as Attachment D.

Closing

If you have any questions regarding this letter, please contact us at (414) 276-7742.

Sincerely,

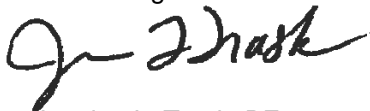
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Attachments:

Figure 1 – Site Location Map
Attachment A.1 –A.7 – As-Built Drawings
Attachment B – GWE-1 Constant-Rate Pumping Test Evaluation
Attachment C – Performance Monitoring Plan
Attachment D – Operation, Maintenance and Monitoring Plan