



State of Ohio Environmental Protection Agency

Northeast District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

September 24, 2009

RE: **WATER TOWER SQUARE
OHD 004 206 215
CUYAHOGA COUNTY
GW-NOD**

CERTIFIED MAIL

Mr. Rustom R. Khouri
Water Tower Square Limited Partnership
27500 Detroit Road
Westlake, Ohio 44145

Dear Mr. Khouri:

The Water Tower Square Limited Partnership (WTS) has submitted the Biannual Ground Water Monitoring Report, First Half 2008 (dated August 18, 2008), Biannual Ground Water Monitoring Report, Second Half 2008 (dated December 4, 2008), and Supplementary Annual Ground Water Monitoring Report 2008, (dated February 20, 2009) to document the results of ground water monitoring that was conducted during 2008. Ground water at the site is monitored in accordance with OAC 3745-54-90 through OAC 3745-54-100. The ground water monitoring program plan is included in the amended post-closure plan approved by Ohio EPA on June 26, 2002. During 2008, ground water samples were collected in July and October.

Regarding these submittals, Ohio EPA found the following violations of Ohio's hazardous waste laws. In order to correct these violations you must do the following and send me the required information **within 30 days** of your receipt of this letter:

Violations

1. Rule OAC 3745-54-97 (D) requires that the ground water monitoring program include sampling and analysis procedures that ensure monitoring results that provide a reliable indication of ground water quality below the waste management area. A Tier 1 data validation is performed to determine if the ground water monitoring data are valid and, thus, reliable indicators of ground water quality below the waste management area. This data validation was not possible due to inadequate data quality, therefore WTS is in violation of this rule. The following data quality issues were identified for the July and October 2008 data.
 - A. Ohio EPA was not able to evaluate the entire QA/QC data for either of the sampling events performed in 2008 because the required information was not submitted. In order to return to compliance, WTS should submit the laboratory QA/QC information needed to perform a Tier 1 data validation. Among the additional data needed by Ohio EPA to perform a Tier 1 data validation are:

- i) A case narrative summarizing QA/QC discrepancies and/or other problems. The signed statements attesting to the validity of the data referenced "attached" case narratives. However, a case narrative was not attached to either the July or October data package. The signed statement attesting to the validity of the data indicated that any problems with the data or analytical events would be found in the case narrative. Since there was no case narrative, it is unknown whether there were problems at the laboratory or if the data should be further qualified.
- ii) Although surrogate recoveries are provided, data are not included for the method blanks, the laboratory control samples, and the matrix spike/ matrix spike duplicate samples. This information should be obtained and submitted to Ohio EPA for review of the 2008 data. In the future, this information should be included in all data packages submitted to Ohio EPA for review so that a complete Tier 1 data validation of the data can be performed.

For additional information concerning Tier 1 data validation requirements, please refer to the Ohio EPA Web page at: <http://www.epa.state.oh.us/dhwm/pdf/TierIDVManual.pdf>.

- B. The sample receipt forms for both sampling events indicate that the sample temperatures exceeded 10° C. In July, the sample temperature was documented as 13° C, and in November the sample temperature was documented as 11° C. Therefore, the data from both sampling events should be qualified with "J" (estimated) for positive results and "UJ" (estimated, non-detect) for non-detect results because the sample temperatures exceeded 10° C.
 - C. The samples from both sampling events were not properly preserved with HCl to a pH of less than 2. The sample receipt forms from both sampling events indicate that the samples were not preserved with HCL and that the sample pH is not within the required range (i.e., <2). The holding time for VOC samples that are not acidified to a pH of <2 is 7 days. The holding time for the July samples was exceeded. The samples were collected on July 1, but not analyzed until July 9. This further affects the validity of the July data. The October samples were analyzed during the seven-day holding time.
 - D. The trip blank data from the October, 2008 sampling event are not valid. The sample receipt form indicates that the trip blank was in a "non-compliant" plastic bottle with a large amount of head space.
2. WTS's approved post-closure plan includes the ground water monitoring program plan. WTS is in violation of OAC 3745-66-17 (D), which requires that all post-closure care activities be in compliance with the provisions of the approved post-closure plan. To return to compliance please address the following issues:

- A. The ground water monitoring system documented in the approved post-closure plan specifies that wells SW-12, SW-14, SW-16S, and SW-17 will be sampled on a semi-annual basis. During the May 2006 sampling event, SW-16S was dry and was not sampled. During all subsequent sampling events, SW-16S has not been dry, but WTS has failed to collect samples from this well. To return to compliance, WTS must indicate that ground water samples will be obtained and analyzed from well SW-16S during each sampling event. If WTS would like to omit this well from the ground water monitoring network, a written request to amend the approved post-closure plan should be submitted for Ohio EPA review and approval.
- B. As per the post-closure plan, the VOC samples are to be preserved by field acidifying them to a pH of less than 2. According to the sample receipt forms for both the July and October sampling events, the VOC samples were not preserved and were not at the specified pH. To return to compliance, WTS should indicate that the sampling procedures included in the post-closure plan will be followed.
- C. According to the post-closure plan, samples are to be analyzed within the specified technical holding times. The VOC samples for the July sampling event were not analyzed within the seven-day holding time for samples not acidified to a pH of less than 2. To return to compliance, WTS should indicate that the sample handling procedures in its approved post-closure plan will be followed.
- D. The post-closure plan specifies that the trip blank will be provided by the laboratory with the sample containers and will consist of a sample container filled with organic-free distilled water. During the October sampling event, it appears that the trip blank was not provided by the laboratory. The laboratory sample receipt form indicates that the trip blank was submitted in a "non-compliant (plastic) bottle," and that there was a large head space left in this sample. Therefore, the trip blank data for this sampling event should be rejected. In addition, it's unclear where WTS obtained the trip blank that was submitted. WTS should document who prepared the trip blank submitted with the October samples. To return to compliance, WTS should indicate how it will correct this and follow the procedures in its approved post-closure plan.
- E. The post-closure plan specifies that the samples will be maintained at a temperature of 4° C after collection. The sample receipt forms indicate that the sample temperatures were 13° C in July and 11° C in October. To return to compliance, WTS should indicate how it will ensure that this procedure in its approved post-closure plan is followed.
- F. The post-closure plan provides for semi-annual sampling of the ground water monitoring system. Semi-annual sampling events are conducted approximately every six months. Although the initial post-closure sampling events were conducted at approximately six-month intervals, the past two years (2007 and 2008) the sampling events have been conducted within three or four months of each other. WTS should

collect and analyze ground water samples at six-month intervals rather than on three or four-month intervals. To return to compliance, WTS should indicate how it will ensure that the semi-annual sampling requirement in its approved post-closure plan is followed.

- G. The post-closure plan documents that the detection limit for vinyl chloride will not exceed 2 ug/L. During the July and October sampling events, the laboratory data sheets indicate that the detection limit for vinyl chloride was 5 ug/L. The 5 ug/L detection limit exceeds the MCL for vinyl chloride. To return to compliance, WTS must indicate how it will ensure that the detection limits for the contaminants of concern do not exceed the detection limits documented in the approved post-closure plan.

More Information Needed To Determine Compliance

1. The documentation of the statistical analysis performed on the data is difficult to follow. The table for each sampling event should include the current data being compared to the tolerance limit. If the logs or natural logs of the data are being used, this should be indicated and the original data plus the logged data should be documented. In addition, it is not possible to determine how the below detection limit values were used in the statistical evaluation. The tables indicate only that the minimum value was BDL. In statistical analyses, below detection limit values should be replaced with a number that is equal to one half the detection limits. In order to evaluate WTS's statistical analysis of the current data, please submit a more detailed summary of the 2008 data used, and all calculations performed, for review. Similar detailed statistical summaries also should be submitted for all future data reports.

Recommendations

2. The detection limits included on the parameter table on the disk accompanying the annual report have not been revised to reflect the current detection limits included on the laboratory data sheets from the July and October 2008 sampling events. The information on the disk should be updated annually when changes occur.
3. The disk that accompanies the annual report has a column for MCLs and ACLs to be reported. This column has not been completed on the disk submitted by WTS. Please add the MCLs and/or ACLs to the parameter table on the disk accompanying the annual reports.
4. Although the sample receipt forms for both sampling events indicate that the samples were not properly preserved, the text of the reports indicate that the samples were field acidified to a pH of less than 2. To avoid misunderstandings, please ensure that the text of the data reports accurately document the details of the sampling events.

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Concern

1. Though the 2008 Supplemental Annual Report was received by Ohio EPA on February 25, 2009, in compliance with the March 1 deadline, the 2007 SAR was received several days after the March 1, 2008 deadline. Please be aware that it is Ohio EPA's expectation that each SAR be submitted to Ohio EPA by its statutory deadline of March 1 of the year following the data collection year.

If you have any questions concerning this letter or other RCRA matters, please do not hesitate to call me at (330) 963-1231.

Sincerely,



Thomas Roth
Environmental Specialist
Division of Hazardous Waste Management

TR:cl

ec: Nyall McKenna, DHWM, NEDO
Natalie Oryshkewych, DHWM, NEDO

cc: Dianne Kurlich, DDAGW, NEDO
Marlene Kinney, DHWM, NEDO