February 13, 2009

Paul Johnson, Water Quality Division
State of Oklahoma/Department of Environmental Quality
707 N. Robinson,
P.O. Box 1677
Oklahoma City, OK 73101-1677 *SENT VIA OVERNIGHT CARRIER (phone 405/702-8100)*

Reference: FMRI, Inc.
OPDES Permit No. OK0001643
Facility ID: I-51000050

Dear Mr. Johnson:

FMRI, Inc. met with you and representatives from the U.S. Nuclear Regulatory Commission (NRC) at our offices on February 4, 2009 regarding Pond Nos. 6 and 7 issues during a routine NRC inspection. The NRC recommended during that meeting that I send you a number of reports related to the construction and operation of the site groundwater interceptor trench. These documents support FMRI's position that the site groundwater interceptor trench is operating as designed and is collecting all impacted groundwater for treatment with no off-site migration, and, as a result, that no changes to Pond Nos. 6 or 7 be made prior to their remediation as part of decommissioning in accordance with the NRC-approved decommissioning plan. Such references also support FMRI's conclusion that no additional site monitoring is required. The ODEQ's review of these documents may alleviate your concerns about the site groundwater interceptor trench which may, in turn, give a different perspective on Pond Nos. 6 and 7 and the additional actions requested in ODEQ's January 14, 2009 letter to either close or line these ponds, or, institute a site-wide groundwater monitoring plan in addition to the current monitoring activities approved by the NRC.

Site Groundwater Interceptor Trench Construction and Operation

The enclosed independent evaluation of the site groundwater interceptor trench conducted in 2002 concluded there has been no offsite migration of groundwater over, under, or around the site groundwater interceptor trench. Current site groundwater interceptor trench operations and monitoring including the ongoing review of groundwater data (groundwater levels and contaminants in selected monitoring wells), as recommended in the 2002 evaluation, also confirms the continued effectiveness of the site groundwater interceptor trench so no contaminated groundwater leaves the site. In addition, the NRC evaluated the operation of the site groundwater interceptor trench during its February 13, 2007 routine annual inspection (which you attended) and also concluded that the site groundwater interceptor trench

was being operated as designed and that the contaminated groundwater was likely being captured by the site groundwater interceptor trench and routed to the wastewater treatment facility for processing prior to release to the environment.

A summary of the enclosed information (i.e., in chronological order) on the site groundwater interceptor trench, its operation, and effectiveness is provided below.

Construction Certification Report, Excavation and On-Site Management of Radiologically Affected Soils and Construction of Groundwater Collection Trench, Earth Sciences Consultants, Inc., November 15, 1999 – This report certifies and provides "as-built" drawings of the construction of the approximately -4,000 foot long site groundwater interceptor trench between most of the site property and the Arkansas River. As described in this report, the site groundwater interceptor trench was constructed on top and into the underlying shale bedrock. "Cleanout" access is located at high points along the shale bedrock while deeper sump pits (i.e., for drainage and pumping to wastewater treatment system) are located at low points along the trench excavation (i.e., so all water in the site groundwater interceptor trench drains by gravity to the low lying sump pits for removal and treatment). By continuously pumping the water collected in the deeper sump pits (i.e., pumping between set high and low sump settings), all of the overlying groundwater drains into the drained constructed site groundwater interceptor trench, then drains to the low-lying sumps, and is then pumped out of the sump pits for treatment.

Letter Report, Hydraulic Evaluation of Interceptor Trench, Earth Sciences Consultants, Inc., July 29, 2002 – Earth Sciences Consultants, Inc. was hired by Fansteel, Inc., the prior NRC licensee for the Muskogee site, to conduct a hydraulic evaluation of the site groundwater interceptor trench on its effectiveness and to provide recommendations on the continued operation and monitoring of the site groundwater interceptor trench to ensure no impacted groundwater had or will bypass the site groundwater interceptor trench system. After a review of groundwater levels (e.g., from shallow monitoring wells and site groundwater interceptor trench sumps), historic groundwater contour maps for the shallow aquifer, hydrogeologic cross sections, hydraulic gradients, and groundwater quality this report concludes that there had been no releases of site contaminants in the vicinity of the site groundwater interceptor trench (i.e., no groundwater flow over, under, or around the site groundwater interceptor trench).

In conjunction with this evaluation, Earth Sciences Consultants, Inc. made recommendations that were adopted to optimize the continued operation of the site groundwater interceptor trench which included: (1) continuous operation and removal of collected groundwater from the french drain around Pond 3 to direct and reduce groundwater flow to the site groundwater interceptor trench; (2) continuous operation of the site groundwater interceptor trench sumps (although equipment shut downs for pump maintenance or replacement of even several weeks would not threaten off-site release); (3) routine inspection of the site groundwater interceptor trench clean outs to make sure they remain dry (i.e., these highpoints in the shale bedrock along the site groundwater interceptor trench should be dry since collected groundwater should be draining to the low lying site groundwater interceptor trench sump pits); (4) routine measurement and comparison of groundwater sump elevations to nearby observation well (piezometer)

groundwater elevations to verify groundwater is not flowing over the site groundwater interceptor trench; and (5) periodic trending of MW-75S and MW-69S testing to make sure no contaminated groundwater is flowing around the end of the site groundwater interceptor trench.

Site Plan (Subsurface Monitoring) Collection Trench/Sumps/Piping/Wells, Drawing GRNDS-011 Survey.dwg, November 25, 2002 – This drawing shows locations of observations wells (piezometers) whose depths are monitored to ensure the effective operation of the site groundwater interceptor trench in accordance with recommendations from Earth Sciences Consultants, Inc. (i.e., for an electronic copy of this drawing see the enclosed CD providing the Technical Information described below).

Technical Information Transmittal Phase 1 Remediation Project, Penn Environmental & Remediation, Inc., March 7, 2007 – As part of the February 13, 2007 annual routine inspection conducted by the NRC, the NRC reviewed groundwater monitoring and corrective action programs to determine if the programs were being implemented in accordance with regulatory and license requirements. Areas and features examined during the site tour included the site groundwater interceptor trench and its four sump pump facilities. It should be noted that representatives from Earth Sciences Consultants, Inc. who prepared the 2002 Hydraulic Evaluation of Interceptor Trench report were also present during this inspection for the purpose of reviewing the evaluation report and other site groundwater interceptor trench construction/operation issues with the NRC and State representatives attending the inspection.

As requested during the inspection, FMRI provided to the NRC additional information enclosed herein, including a groundwater monitoring well location map and drawings of the site groundwater interceptor trench sumps. Much of this information was also provided to you under separate cover as you requested during your attendance at the February 13, 2007 inspection.

NRC Inspection Report 040-07580/07-001, March 13, 2007 – This NRC inspection report presents the results of the February 13, 2007 inspection described above. Again, the NRC concluded in this report (see page 5) that the site groundwater interceptor trench is operating as designed for groundwater capture and treatment.

Pre-Closure Sampling and Analysis Report, Pond Nos. 6 and 7, Penn Environmental & Remediation, Inc., November 19, 2007 – This report details the characterization of the site proximal to Pond Nos. 6 and 7 (including wastewater, Pond Nos. 6 and 7 sediments, and monitoring well and site groundwater interceptor trench groundwater samples). As concluded in this report, the existing clay liners for Pond Nos. 6 and 7 is protective of groundwater and do not require any modification until closure of the ponds can be completed during the scheduled decommissioning effort. It is FMRI's further contention that the site groundwater interceptor trench is an additional protective measure to ensure no possible groundwater impacts from these ponds (if any) migrates off-site and that no additional work on Pond Nos. 6 and 7 is required.

Excerpt from the Analytical Reports, MW-75 and MW-69, November 20, 2008 –Earth Sciences Consultants, Inc. recommended in its 2002 Hydraulic Evaluation of Interceptor Trench report that analytic results of groundwater collected from MW-75 and MW-69 be compared to

historic values to ensure groundwater is not flowing around the end of the site groundwater interceptor trench. The enclosed excerpt from the November 20, 2008 groundwater analytical reports provides the analytical results of groundwater collected from MW-75 and MW-69 on September 24, 2008 (i.e., the most recent groundwater sampling activity). A comparison of this most recent groundwater testing data to historic values shows no adverse impacts to groundwater flowing around the end of the site groundwater interceptor trench (i.e., it is working as designed). The complete site-wide groundwater monitoring data from the September 24, 2008 sampling event has already been provided to the ODEQ under separate cover.

As further suggested by the NRC at our February 4, 2009 meeting, we are sending them a copy of this letter and enclosures.

Pond Nos. 6 and 7 Issues

During our February 4, 2009 meeting with the NRC, we also discussed the pending FMRI response to your January 14, 2009 letter requesting the selection of one of three options for Pond Nos. 6 and 7 (i.e., closing the ponds in 2010, lining the ponds in 2010, or, implementing a site-wide groundwater monitoring plan in 2009, including the installation of additional monitoring wells east of the site groundwater interceptor trench).

As an initial point, Pond Nos. 6 and 7 are critical to the operation of the wastewater treatment system (i.e., they provide operating capacity during high precipitation events and allows the flexibility to return water to the treatment system for further treatment if necessary) and are not scheduled to be closed in accordance with the NRC-approved decommissioning plan until 2015.

As you further are aware, FMRI requested input from the NRC (i.e., by letter dated July 24, 2008) as to whether any of these additional Pond Nos. 6 and 7 actions requested by the ODEQ are consistent with and permitted by the Decommissioning Plan and, if so, whether NRC's prior approval is necessary for any additional Pond Nos. 6 and 7 actions requested by the State, e.g., for purposes of withdrawing funds from the Decommissioning Trust to support these activities. You were provided a copy of that July 24, 2008 letter. FMRI's concern is that the NRC-approved decommissioning already has provisions for closure of Pond Nos. 6 and 7 during Phase 2 decommissioning activities and for additional characterization in conjunction with Phase 3 decommissioning activities (i.e., but not during current Phase 1 decommissioning activities).

FMRI's estimates modification/installation of engineered liners in these ponds will cost about $370,000 (i.e., even though these ponds are to be closed during Phase 2 activities in accordance with the NRC-approved decommissioning plan). Development of an additional site-wide groundwater monitoring plan, installation of additional groundwater monitoring wells, and additional analysis of all the wells (i.e., per the parameter list provided by ODEQ) would result in even higher expenses before the planned additional characterization to be performed during Phase 3 of the NRC-approved decommissioning activities. Conducting these activities now would divert FMRI's limited resources from the remaining Phase 1 decommissioning activities

and would most likely delay the completion of the planned Phase 1 decommissioning activities (i.e., in opposition to the "worst-first" concept of the decommissioning plan).

While the NRC has not provided a formal written response to FMRI's July 24th request, the NRC did state its preference during the February 4, 2009 meeting that FMRI use its limited available funds to continue the Phase 1 decommissioning of Pond 2 (i.e., removal for offsite reclamation the WIP material in Pond 2) instead of installing a synthetic liner in Pond Nos. 6 and 7 by May 1, 2010. The NRC also said that lining Ponds Nos. 6 and 7 may require a license amendment and/or additional environmental review, and that they would provide further feedback to FMRI after considering this matter further. In any event, FMRI would incur significant costs associated with the NRC's review of any of the State's requested options.

As you suggested, FMRI has also discussed the use of the existing observation wells (piezometers) for analytical sampling with our environmental consultants (i.e., in lieu of additional monitoring wells east of the site groundwater interceptor trench). Initial indications are that these observation wells (piezometers) were not constructed and developed for use as monitoring wells (i.e., samples indicative of groundwater quality could not be collected from the observation wells) and that the quality of any data collected from these wells, other than elevation data, cannot be determined without further evaluation of these monitoring points. We are exploring this further with our consultants and will let you know if these observation wells can be used for some purpose other than measuring groundwater elevations. In addition, during our meeting, I also described FMRI's concern that sampling groundwater on the east side of the site groundwater interceptor trench would not provide conclusive information on the effectiveness of the site groundwater interceptor trench, and that the enclosed information provided with this letter was better suited for evaluating and determining the effectiveness of the site groundwater interceptor trench (which seems to be the major concern of the ODEQ).

Given the expense for the additional monitoring requested and its limited value (especially since additional characterization is already scheduled in accordance with the NRC-approved decommissioning plan during Phase 3 activities after source removal has been completed), FMRI's only possible option it could select from ODEQ's January 14, 2009 request would be to line Pond Nos. 6 and 7 (i.e., subject to availability of funding while maintaining environmental and safety controls).

However, FMRI is constrained from making a definitive selection until further input is provided by the NRC on this deviation from the approved decommissioning plan. When FMRI receives the requested further input from the NRC, it will then be in a position to substantively respond to the ODEQ's January 14, 2009 letter.

While we wait for NRC input, including the determination of whether an amendment or other additional review is required, FMRI requests that the ODEQ consider the information enclosed with this letter and its sufficiency, along with previously submitted information, to allow a waiver/variance from the lining requirement since Ponds Nos. 6 and 7 are already being closed under a federally-approved closure plan in accordance with the FMRI license and decommissioning plan as a result of determining that the site groundwater interceptor trench is

operating as designed to protect off-site areas. As discussed by the NRC at our February 4, 2009 meeting, this will allow the most prudent use of available funds and will not delay Pond 2 Phase 1 decommissioning efforts by diverting funds when not necessary to assure the protection of offsite areas.

In the meantime if you have any questions or if you would like to discuss this matter further, please do not hesitate to contact me directly.

Regards,

E. Jonathan Jackson, President

Enclosures

cc/enclosures: James Shepherd (NRC)