DTE Energy

NRC-06-0058
July 28, 2006

Mr. Stuart A. Richards, Deputy Director
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Reference: Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43

Subject: Groundwater Protection – Data Collection Questionnaire

Dear Mr. Richards:

The nuclear industry, in conjunction with the Nuclear Energy Institute, has developed a questionnaire to facilitate the collection of groundwater data at commercial nuclear reactor sites. The objective of the questionnaire is to compile baseline information about the current status of site programs for monitoring and protecting groundwater and to share that information with NRC. The completed questionnaire for Fermi 2 is enclosed.

This submittal contains no new regulatory commitments.

Please contact Mr. Ronald W. Gaston, Manager - Nuclear Licensing, at (734) 586-5197 should you have any questions or require additional information about the enclosed information.

Sincerely,

K. J. Hlavaty

Enclosure

cc: NRC Document Control Desk
D. H. Jaffe
C. A. Lipa
NRC Resident Office
Regional Administrator, Region III
Ralph Andersen, Nuclear Energy Institute

Groundwater Protection Questionnaire

1. *Briefly describe the program and/or methods used for detection of leakage or spills from plant systems, structures, and components that have a potential for an inadvertent release of radioactivity from plant operations into groundwater.*

   Site procedures and training require reporting of spills within a site restricted area. Accessible spaces are routinely walked down by plant operators performing rounds, who would discover spills in these areas. Plant procedures require that such spills be investigated. Spills with the potential to enter groundwater are entered and tracked through the site corrective action program.

   Plant personnel routinely perform water balance determinations on the plant water inventory. While this would not immediately detect a small leak, it is likely to identify an adverse trend.

   In the event of an undiscovered release to groundwater, the Fermi 2 Radiological Environmental Monitoring Program (REMP) is designed to detect any groundwater radiological contamination prior to any offsite impact. This is further described in the response to question 2.

2. *Briefly describe the program and/or methods for monitoring onsite groundwater for the presence of radioactivity released from plant operations.*

   Fermi 2 has four groundwater monitoring wells included in its REMP. One of these is a control well, designed to monitor groundwater before it flows through the site. The other three are monitoring wells, designed to detect any release to groundwater before it reaches an offsite domestic water well. These are sampled on a quarterly basis for the radionuclides and sensitivities specified in the Offsite Dose Calculation Manual (ODCM), and the water level in each well is measured on a monthly basis to determine groundwater flow direction.

   In addition, fourteen groundwater monitoring wells have been installed around Fermi 1, to characterize groundwater in support of decommissioning activities. These are also sampled on a quarterly basis with samples assayed for tritium and gamma emitters for the sensitivities specified in the Fermi 2 ODCM.

3. *If applicable, briefly summarize any occurrences of inadvertent releases of radioactive liquids that had he potential to reach groundwater and have been documented in accordance with 10 CFR 50.75(g).*

   In 1985, water spilled from the Condensate Storage Tank (CST) onto the surrounding soil within the secondary containment. Potentially contaminated soil was removed

for storage pending disposition. This soil was subsequently monitored, with no contamination detected. It was then released for use as on site fill.

In 1986, a leak in the Condensate Storage Tank allowed the tank contents to drain into the secondary containment. The NRC was requested in Detroit Edison letter NRC-87-0076, "Request to Retain Contaminated Soil On-Site in Accordance with 10CFR20.302," dated May 26, 1987 to leave the contamination in place, and the NRC approved this request in NRC letter dated April 14, 1988. A leak tight, poly liner has since been installed on the floor of the diked area around the CST and Condensate Return Tank (CRT) to prevent further ground contamination.

4. *If applicable, briefly summarize the circumstances associated with any onsite or offsite groundwater monitoring result indicating a concentration in groundwater of radioactivity released from plant operations that exceeds the maximum contaminant level (MCL) established by the USEPA for drinking water.*

   There have been no such results at the Fermi Energy Center.

5. *Briefly describe any remediation efforts undertaken or planned to reduce or eliminate levels of radioactivity resulting from plant operations in soil or groundwater onsite or offsite.*

   No such remediation efforts have been undertaken and none are planned at this time.