February 3, 2011

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
	)	
THE DETROIT EDISON COMPANY	)	Docket No. 52-033-COL
	)	
(Fermi Nuclear Power Plant, Unit 3)	)	

APPLICANT'S MOTION FOR SUMMARY DISPOSITION OF CONTENTION 5

INTRODUCTION

Pursuant to 10 C.F.R. § 2.1205, the Detroit Edison Company files this motion for summary disposition of Contention 5, which relates to site-specific hydrogeological parameters and radiological transport modeling.[1] Summary disposition is warranted on the grounds that the omission averred in the contention has been cured, and there exists no genuine issue as to any material fact relevant to the contention. Therefore, under the applicable Commission regulations, Detroit Edison is entitled to a decision as a matter of law. This motion is supported by a Statement of Material Facts as to which Detroit Edison asserts that there is no genuine dispute and the affidavit of Peter W. Smith, Director, Nuclear Development – Licensing and Engineering, for the Detroit Edison Company.

[1] Counsel for Detroit Edison has contacted counsel for the NRC Staff and Joint Intervenors. Counsel for the NRC Staff indicated that they do not oppose the motion, while the Joint Intervenors indicated that they would oppose the motion.

LEGAL STANDARDS FOR SUMMARY DISPOSITION

We previously set forth the relevant law regarding the standard for summary disposition and do not repeat that discussion herein. *See* "Applicant's Motion For Summary Disposition of Contention 3," dated April 26, 2010 at 1-4.

SCOPE OF ADMITTED CONTENTION 5

Contention 5, as proposed,[2] alleged that "[t]he Fermi site may have problematic hydrology likely to allow offsite transport of chemical and radiological contaminants." Pet. at 50. Using an NRC Staff Request for Additional Information ("RAI") concerning the Applicant's FSAR Section 2.4.13 analysis as their primary support, the Petitioners asserted that the Applicant's "current hydrological studies are woefully inadequate" due to the omission of certain site-specific hydrogeological data. *Id*. In support of the contention, the Petitioners cited 10 C.F.R. § 100.20 and asseerted that certain factors related to hydrological radionuclide transport must "be obtained from on-site measurements." *Id*. In particular, the Petitioners asserted that Detroit Edison omitted factors "such as soil, sediment, and rock characteristics, adsorption and retention coefficients, ground water velocity, and distances to the nearest surface body of water" in its hydrological radionuclide transport analysis. *Id*.

In LBP-09-16, the Licensing Board found Contention 5 admissible as a "contention of omission" to the extent it relates to the omission from the COL application of on-site measurements of distribution coefficients, retardation factors, and porosity. LBP-09-16, slip

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[2] *See* "Petition of Beyond Nuclear, Citizens for Alternatives to Chemical Contamination, Citizens Environmental Alliance of Southwestern Ontario, Don't Waste Michigan, Sierra Club, Keith Gunter, Edward McArdle, Henry Newman, Derek Coronado, Sandra Bihn, Harold L. Stokes, Michael J. Keegan, Richard Coronado, George Steinman, Marilyn R. Timmer, Leonard Mandeville, Frank Mantei, Marcee Meyers, and Shirley Steinman for Leave to Intervene in Combined Operating License Proceedings and Request for Adjudication Hearing," at 50 (Mar. 9, 2009) ("Pet.").

op. at 44 (citing 10 C.F.R. § 100.20(c)(3)). The Licensing Board restricted the Petitioners' broad assertion that "key data" and onsite measurements have been omitted to those parameters required by 10 C.F.R. § 100.20(c)(3) and specifically identified the only three parameters raised by the Intervenors (distribution coefficients, retardation factors, and porosity).[3] *Id*.

The Licensing Board also admitted the portion of Contention 5 that relates to the exceedance of effluent concentration limits ("ECLs") in the COL application's analysis of radionuclide transport in groundwater as documented in FSAR § 2.4.13, Revision 1. LBP-09-16 at 44. Because the Fermi 3 design includes mitigating features that preclude an accidental release of liquid effluents, the COL application initially did not analyze an accidental release to ground and surface water. In response to an NRC Staff RAI, Detroit Edison acknowledged that some on-site hydrogeologic data was not yet available, and provided an analysis of liquid effluent release to groundwater based on conservative assumptions (such assumptions result in increasing the calculated exposure concentration). *See* Letter to NRC from Jack M. Davis, Detroit Edison Company, NRC3-08-0008, "Detroit Edison Company Submittal of Fermi 3 FSAR Section 2.4.13 Analysis (NRC Project No. 757)," dated November 11, 2008 (ADAMS Accession No. ML083190539). The analysis based on the conservative assumptions showed that concentrations of a number of radionuclides calculated at potential exposure locations would exceed the ECLs as specified in 10 C.F.R. Part 20 Appendix B, Table 2. The results from the

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[3] Detroit Edison initially addressed the lack of certain on-site hydrogeologic data in response to a later RAI. *See* Letter to Document Control Desk from Jack M. Davis, Senior Vice President and Chief Nuclear Officer, Detroit Edison Company, NRC3-09-0001, "Detroit Edison Company Response to NRC Request for Additional Information Letters No. 1 and No. 2," dated February 16, 2009 (ADAMS Accession No. ML090610219). In the RAI response, Detroit Edison committed to providing site-specific hydrogeologic data and to updating its radionuclide transport model with the site-specific data by September 1, 2009. *See id*., Attachment 2 (site-specific hydrogeologic data); *id*., Attachment 7 (radionuclide transport modeling).

analysis were incorporated into FSAR § 2.4.13, Revision 1. Based on exceedance of the ECLs, the Licensing Board admitted this portion of Contention 5. The Licensing Board denied the remainder of Contention 5 for failing to provide facts or expert support and failing to demonstrate a genuine dispute with the application on a material issue of fact or law. *Id*.

At bottom, the two aspects of Contention 5 that were accepted for hearing relate to the lack of site-specific hydrogeologic data in the COL application. The first aspect is based on the simple omission from the COL application of site specific data for distribution coefficients, retardation factors, and porosity. The second aspect centers on the results of the Fermi 3 radionuclide transport model, which used generic conservative assumptions rather than site-specific data.

THE APPLICANT IS ENTITLED TO SUMMARY DISPOSITION ON CONTENTION 5

Detroit Edison moves for summary disposition of Contention 5 on the ground that there no longer exists a genuine dispute concerning any facts material to the foregoing matters because Detroit Edison has revised the COL application so as to render both aspects of the contention moot. Since the contention was admitted, Detroit Edison has provided the previously-unavailable site-specific hydrogeologic data and an updated contaminant transport analysis. The updated analysis incorporated the required site-specific data and does not indicate any exceedance of the ECLs.

The Commission has explained that where a contention alleges the omission of particular information, and the information is later supplied by the applicant, the contention is moot. *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear State, Units 1 and 2), CLI-02-28, 56 NRC 373, 282-283 (2002); *see also USEC, Inc.* (American Centrifuge Plant), CLI-06-09, 63 NRC 433 (2006). A contention is also moot where revised

information supplied by an applicant eliminates the controversy, factual or otherwise, that was the basis for admitting a contention. *Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), LBP-99-23, 49 NRC 485, 493 (1999). Summary disposition is appropriate for a contention that is moot. *Exelon Generation Company* (Early Site Permit for Clinton ESP Site), LBP-05-19, 62 NRC 134, 182 (2005).

As discussed further below, Detroit Edison first addressed both issues underlying Contention 5 in a letter to the NRC, dated September 1, 2009. *See* Letter to NRC Document Control Desk from Peter W. Smith, Director, Nuclear Development – Licensing and Engineering, Detroit Edison Company, NRC3-09-0026, "Detroit Edison Company Revised Response to NRC Request for Additional Information Letter No. 2" (ADAMS Accession No. ML092470230). Detroit Edison subsequently supplemented its response on May 7, 2010. *See* Letter to NRC Document Control Desk from Peter W. Smith, Director, Nuclear Development – Licensing and Engineering, Detroit Edison Company, NRC3-10-0018, "Detroit Edison Company Response to NRC Request for Additional Information Letter No. 28" (ADAMS Accession No. ML101320136). Finally, on October 19, 2010, Detroit Edison responded to two NRC RAIs relating to the radiological transport model. *See* Letter to NRC Document Control Desk from Peter W. Smith, Director, Nuclear Development – Licensing and Engineering, Detroit Edison Company, NRC3-10-0046, "Detroit Edison Company Response to NRC Requests for Additional Information (RAI) Letter No. 42 and RAI 02.03.13-11" (ADAMS Accession No. ML102940218), at Attachment 4.

A. Distribution Coefficient and Retardation Factors

In Attachment 1 to NRC3-09-0026, Detroit Edison explained that it determined site-specific distribution coefficients (K_d values) based on laboratory testing of rock samples

from the Bass Islands formation.[4] *Id*. at 3. Samples for the laboratory testing were taken from nine different locations on site. *Id*. The locations for the laboratory testing samples were selected based on the postulated groundwater flow path either to the west to the closest off-site water well or to the east to Lake Erie. *Id*.; *see also*, NRC3-10-0018, Attachment 5, at 2-515 to 2-519. Water samples from on-site monitoring wells screened in the Bass Islands aquifer approximately along the flow paths were used during the laboratory testing. NRC3-09-0026, Attachment 1, at 3. Distribution coefficient measurements were obtained for cerium, cesium, cobalt, iron, manganese, ruthenium, silver, strontium, yttrium, and zinc. *Id*. Selection of radionuclides for determination of distribution coefficients was based on the activity of the equipment drain collection tank source term (including progenies) from ESBWR DCD, Rev. 5, Table 12.2-13a, and screening evaluations.[5] *Id*. The site-specific distribution coefficients are listed in the updated FSAR, Table 2.4-234, for both postulated flow paths. NRC3-10-0018, Attachment 5, at 2-573. Because estimates of contaminant retardation are based on K_d,

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[4] K_d is an empirical unit of measurement that accounts for various chemical and physical retardation mechanisms. K_d is the measure often used in transport codes to describe the extent to which contaminants are sorbed to soils (or retarded) during contaminant transport. *See, e.g.*, Environmental Protection Agency, Office of Air and Radiation, EPA 402-R-99-004A, "Understanding Variation In Partition Coefficient, K_d, Values," at 1.1, 2.1 (August 1999) (available at http://www.epa.gov/rpdweb00/docs/kdreport/vol1/402-r-99-004a.pdf).

[5] The screening evaluations conservatively determined the concentrations of the various radionuclides at the receptor (*i.e.*, nearest off-site well or Lake Erie) considering only the decay of the radionuclides during the transport to the receptor. NRC3-09-0026, Attachment 1, at 3. The results from the screening evaluation were then compared to the 10 C.F.R. Part 20, Appendix B, Table 2, limits. *Id*. Radionuclides were selected for the laboratory analysis where the concentration predicted in the conservative screening evaluation exceeded the Table 2 limit. *Id*.

providing site-specific K_d values also cures the omission of site-specific retardation factors in the COL application.[6]

By providing site-specific K_d values, Detroit Edison satisfied its obligation under 10 C.F.R. § 100.20(c)(3) to obtain adsorption and retention coefficients from on-site measurements. Accordingly, to the extent that the omission underlying Contention 5 was based on the failure to provide site-specific distribution coefficients and retardation factors, the omission has been cured. This aspect of Contention 5 is moot.

B. Porosity

Detroit Edison has also validated the porosity data provided in the COL application using site-specific information. Detroit Edison initially selected an effective porosity value from a report of similar material (*i.e.*, dolomite). *See* NRC3-09-0026, Attachment 3, at 5 (citing *id*., Attachment 6). In Attachment 3 to NRC3-09-0026, Detroit Edison explained that the porosity value used by Detroit Edison in the transport model was determined to be conservative with respect to available information for other areas of the Bass Islands formation in the State of Michigan.[7] *Id*., Attachment 3, at 5; *see also id*., Attachment 5.

In NRC3-10-0046, Detroit Edison noted that it had initially used an effective porosity of 1 percent, based on subsurface materials similar to Bass Island formation at the Fermi site. NRC3-10-0046, Attachment 4, at 5. Detroit Edison explained that it had subsequently determined site specific effective porosity using site-specific measured parameters for hydraulic

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[6] Retardation factor, $R_f = 1 + (\rho_b/n_e)(K_d)$, where ρ_b = dry bulk mass density of the soil, gm/cc, n_e = effective porosity of the media at saturation, dimensionless, and K_d = distribution coefficient for the solute with the soil, ml/g. EPA 402-R-99-004A, at 2.18.

[7] Table 2.4-234 (*id*., Attachment 4) also lists site-specific parameters for numerous other factors important to hydrological radionuclide transport, including hydraulic conductivity, hydraulic gradient, precipitation rate, dry bulk density, longitudinal dispersivity, and transverse horizontal dispersivity.

conductivity and Rock Quality Designation ("RQD"). *Id*. Hydraulic conductivity values were determined based on Packer Testing (refer to FSAR Section 2.4.12.2.4.2). *Id*. Using this method and site specific inputs, effective porosity was estimated at several on-site locations with results ranging from 0.1% to 0.8%. *Id*. For the purposes of the radionuclide transport analysis, the described analysis conservatively uses an effective porosity of 0.1%. *Id*. This information was incorporated into Sections 2.3.1.2.3.2 of the Environmental Report ("ER") and 2.4.12.3.2 of the FSAR.

Accordingly, to the extent that the omission underlying Contention 5 was based on the failure to provide site-specific porosity information, the omission has been cured. This aspect of Contention 5 is moot.

C. Revised Transport Modeling Results

Detroit Edison has also revised its radionuclide transport model to incorporate the site-specific data discussed above. Detroit Edison modeled two different flow paths: (1) flow towards Lake Erie to the east through the Bass Islands bedrock formation; and (2) flow towards the offsite well to the west through the Bass Islands bedrock formation.[8] For both flow paths, Detroit Edison implemented a progressive approach to performing the radiological transport models. *See* NRC3-10-0046, Attachment 4, at 3. The results of the updated analysis show that the radionuclide concentrations predicted at the closest off-site well and at Lake Erie are less

[8] FSAR Section 2.4.12.3.1 describes two potential pathways in the bedrock (*i.e.*, the Bass Islands aquifer): (1) the documented present-day condition, in which the groundwater flow direction in the Bass Islands aquifer is westward off-site; and (2) a possible future condition in which the flow direction has returned to the east toward Lake Erie. The present day condition is attributed to dewatering associated with quarrying operations westward of the site. The possible future condition accounts for the case where the quarrying operations were to cease. For the purposes of the transport analyses, both potential flow paths are considered.

than the 10 C.F.R. Part 20, Appendix B, Table 2, Column 2 limits. *See id*. at Table 2.4-235. The steps used in the updated analysis are summarized briefly below.

First, the radiological transport analysis was performed only crediting radioactive decay during the transport from the Radwaste Building to the receptor. NRC3-10-0046, Attachment 4, at 5. In this analysis, the model assumes that all radionuclides migrate at the same rate as groundwater and no credit was taken for adsorption, retardation or dispersion. The computed concentrations at the receptors were compared with the 10 C.F.R. Part 20, Appendix B, Table 2, effluent concentration limits ("ECLs"). The ratio of the groundwater concentration to the ECL was used as a screening indicator. Ratios that were greater than or equal to 0.01 (i.e., the groundwater concentration is predicted to be greater than or equal to one percent of the ECL) were selected for further evaluation.

Next, Detroit Edison considered both radioactive decay and adsorption in the transport analysis. NRC3-10-0046, Attachment 4, at 5. The analysis used the minimum site-specific distribution (adsorption) coefficients (K_d values) for each element analyzed. Distribution coefficients for other elements in the analysis were conservatively assigned a value of zero (*i.e.*, no credit for retardation during transport). The ratio of the groundwater concentration to the ECL was again used as a screening indicator. As before, ratios that were greater than or equal to 0.01 were selected for further evaluation using advection and dispersion.

For the Lake Erie flow path, the model considered the dilutive effect of the lake. NRC3-10-0046, Attachment 4, at 5-6. The nearest potable water intake in Lake Erie, located 474 meters offshore, is approximately 1,600 meters from the point where the modeled radionuclides would be expected to enter the lake. The predicted dilution factor is approximately 3500. However, to ensure conservatism in the evaluation, Detroit Edison applied a dilution

factor of 10. Applying the conservative dilution factor, the predicted concentration of each of the radionuclides at the receptor is less than the maximum permissible concentration. For this flow path, no further evaluation is necessary.

For transport to the off-site well, the model considered one-dimensional (longitudinal) dispersion. NRC3-10-0046, Attachment 4, at 6. Using the representative average linear velocity, the model considered advection and dispersion in addition to radioactive decay, adsorption, and retardation. While the predicted concentrations of the radionuclides from the analysis of the closest offsite well pathway are all less than the respective ECL, the sum of the fractions of all radionuclides slightly exceeds unity at three years. As a result, Detroit Edison considered two-dimensional (longitudinal and transverse horizontal) dispersion. The model results indicate that the predicted concentrations of the radionuclides are less than the respective ECL and the sum of the fractions of all radionuclides is less than unity at all time points.

As noted above, the aspect of Contention 5 that related to the results of transport modeling was based on the exceedance of the Part 20 regulatory limits in the original Fermi 3 COL application analysis of radionuclide transport in groundwater (as documented in FSAR 2.4.13, Revision 1). Because the revised transport model, which relies on site-specific data, does not yield any exceedance of the regulatory limits, this aspect of Contention 5 is moot.

At bottom, because the alleged omission in the application has been cured and because the revised analysis, which relies on site-specific data, no longer shows any regulatory exceedance, Contention 5, as admitted by the Licensing Board, is now moot.[9] There remains no

[9] The Intervenors have not to date elected to revise or amend Contention 5 based on the new information provided in Detroit Edison's September 1, 2009, May 7, 2010, or October 19, 2010, letters to the NRC. The Licensing Board's scheduling order, dated September 11, 2009, specifically stated that new or amended contentions must be submitted "in a timely fashion based on the availability of the [new] information." Order

genuine issue as to any material fact relevant to the admitted contention. Accordingly, the Applicant is entitled to a decision as a matter of law.

CONCLUSION

For the above reasons, the Licensing Board should grant summary disposition of Contention 5.

Respectfully submitted,

/s/ signed electronically by
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COUNSEL FOR THE
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Dated at Washington, District of Columbia
this 3rd day of February 2011

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at 2. The Licensing Board also explained that "[i]n general, a proposed new or amended contention shall be deemed timely under 10 C.F.R. § 2.309(f)(2)(iii) if it is filed within thirty (30) days of the date when the new and material information on which it is based first becomes available." *Id*.

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In the Matter of:	)	
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	)	
(Fermi Nuclear Power Plant, Unit 3)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "APPLICANT'S MOTION FOR SUMMARY DISPOSITION OF CONTENTION 5," "STATEMENT OF MATERIAL FACTS IN SUPPORT OF SUMMARY DISPOSITION," and "AFFIDAVIT OF PETER W. SMITH" in the captioned proceeding have been served via the Electronic Information Exchange ("EIE") this 3rd day of February 2011, which to the best of my knowledge resulted in transmittal of the foregoing to the following persons.

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DETROIT EDISON COMPANY

February 3, 2011

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STATEMENT OF MATERIAL FACTS
ON WHICH NO GENUINE DISPUTE EXISTS

The Detroit Edison Company submits, in support of its motion for summary disposition of Contention 5, this statement of material facts as to which Detroit Edison contends that there is no genuine issue to be heard.

1. The Detroit Edison Company filed the combined license ("COL") application for Fermi Unit 3 on September 18, 2008. The application included a Final Safety Analysis Report ("FSAR").

2. The FSAR incorporates the ESBWR design, which contains mitigating features that preclude accidental releases of radionuclides into potential liquid pathways. *See e.g.*, ESBWR Design Control Document ("DCD") Tier 2, Chapter 11. Because mitigating design features are present, an accidental release of radioactive liquid is not postulated in the ESBWR DCD Tier 2, Chapter 15.

3. On March 9, 2009, Beyond Nuclear, Citizens for Alternatives to Chemical Contamination, Citizens Environmental Alliance of Southwestern Ontario, Don't Waste Michigan, Sierra Club, Keith Gunter, Edward McArdle, Henry Newman, Derek Coronado, Sandra Bihn, Harold L. Stokes, Michael J. Keegan, Richard Coronardo, George Steinman, Marilyn R. Timmer, Leonard Mandeville, Frank Mantei, Marcee Meyers, and Shirley Steinman (collectively "Intervenors") filed their "Petition for Leave to Intervene in Combined Operating License Proceedings and Request for Adjudication Hearing" ("Petition"). Proposed Contention 5 alleged that "The Fermi site may have problematic hydrology likely to allow offsite transport of chemical and radiological contaminants."

4. In its Memorandum and Order dated July 31, 2009, the Licensing Board admitted two aspects of Contention 5. LBP-09-16, __ NRC __, slip op. at 44.

5. The Licensing Board found Contention 5 admissible as it relates to the omission from the COLA of on-site measurements of distribution coefficients, retardation factors, and

porosity. *Id*. According to the Board, Contention 5 properly asserts a "contention of omission" with regard to on-site measurements of distribution coefficients, retardation factors, and porosity. *Id*. at 44 (citing 10 C.F.R. § 100.20(c)(3)). The Licensing Board restricted the Petitioners' broad assertion that "key data" and onsite measurements have been omitted to the specific parameters required by 10 C.F.R. § 100.20(c)(3): distribution coefficients, retardation factors, and porosity.

6. The Licensing Board also found Contention 5 admissible as it relates to the exceedance of effluent concentration limits ("ECLs") in the analysis of radionuclide transport in groundwater presented in FSAR § 2.4.13, Revision 1. *Id*. The analysis showed that concentrations of a number of radionuclides calculated at potential exposure locations exceeded the ECLs as specified in 10 C.F.R. Part 20 Appendix B, Table 2. The results from the analysis were incorporated into FSAR § 2.4.13, Revision 1. Based on exceedance of the ECLs, the Licensing Board admitted this portion of Contention 5.

7. The Licensing Board denied the remainder of Contention 5 for failing to provide alleged facts or expert support and failing to demonstrate a genuine dispute with the application on a material issue of fact or law.

8. On September 1, 2009, Detroit Edison provided updated information for Section 2.4.13 of the FSAR. *See* Letter to NRC Document Control Desk from Peter W. Smith, Director, Nuclear Development – Licensing and Engineering, Detroit Edison Company, NRC3-09-0026, "Detroit Edison Company Revised Response to NRC Request for Additional Information Letter No. 2" (ADAMS Accession No. ML092470230). Detroit Edison provided site-specific distribution coefficients (K_d values) based on laboratory testing of rock samples from the Bass Islands formation. *Id*. at 3. The site-specific values of distribution coefficients are listed in the updated Table 2.4-234 in the FSAR, along with other site-specific parameters. *Id*., Attachment 4.

9. On October 19, 2010, Detroit Edison provided additional updated information for Section 2.4.13. *See* Letter to NRC Document Control Desk from Peter W. Smith, Director, Nuclear Development – Licensing and Engineering, Detroit Edison Company, NRC3-10-0046, "Detroit Edison Company Response to NRC Requests for Additional Information (RAI) Letter No. 42 and RAI 02.03.13-11" (ADAMS Accession No. ML102940218), at Attachment 4. In the RAI response, Detroit Edison provided site-specific porosity data. This information was incorporated into Sections 2.3.1.2.3.2 of the Environmental Report and 2.4.12.3.2 of the FSAR.

10. In the October 19, 2010 RAI response, Detroit Edison also presented an updated radiological transport model. The transport model analyzes two different receptors — a well located off-site to the west and Lake Erie to the east. The results of the analysis show that the radionuclide concentrations predicted at the closest off-site well and at the closest receptor in Lake Erie are less than the 10 C.F.R. Part 20, Appendix B, Table 2, Column 2 limits. This information was incorporated into Section 2.4.13 of the FSAR.

/s/ signed electronically by
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COUNSEL FOR THE
DETROIT EDISON COMPANY

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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	)	
(Fermi Nuclear Power Plant, Unit 3)	)	

AFFIDAVIT OF PETER W. SMITH IN
SUPPORT OF SUMMARY DISPOSITION OF CONTENTION 5

I, Peter W. Smith, do hereby state as follows:

1. I am the Director, Nuclear Development – Licensing and Engineering, for the Detroit Edison Company. In my current position, I have overall responsibility for the combined license ("COL") application for Fermi Unit 3.

2. In a letter dated September 1, 2009, I provided, on behalf of the Detroit Edison Company, a response to an NRC Staff request for additional information ("RAI") regarding certain site-specific parameters and hydrological radionuclide transport models for Fermi Unit 3. *See* Letter to NRC Document Control Desk from Peter W. Smith, Director, Nuclear Development – Licensing and Engineering, Detroit Edison Company, NRC3-09-0026, "Detroit Edison Company Revised Response to NRC Request for Additional Information Letter No. 2" (ADAMS Accession No. ML092470230). The letter includes revised content for the Section 2.4.13 of the Fermi 3 Final Safety Analysis Report ("FSAR"). Specifically, the letter includes information regarding site-specific distribution coefficients (K_d values).

3. I subsequently provided additional information to the NRC on May 7, 2010. *See* Letter to NRC Document Control Desk from Peter W. Smith, Director, Nuclear Development – Licensing and Engineering, Detroit Edison Company, NRC3-10-0018, "Detroit Edison Company

Response to NRC Request for Additional Information Letter No. 28" (ADAMS Accession No. ML101320136). The letter contains revised content for Section 2.4.13 of the Fermi 3 FSAR.

4. On October 19, 2010, I responded to two NRC RAIs relating to radionuclide transport modeling. *See* Letter to NRC Document Control Desk from Peter W. Smith, Director, Nuclear Development – Licensing and Engineering, Detroit Edison Company, NRC3-10-0046, "Detroit Edison Company Response to NRC Requests for Additional Information (RAI) Letter No. 42 and RAI 02.03.13-11" (ADAMS Accession No. ML102940218), at Attachment 4. The letter includes site-specific porosity data, which was incorporated into Sections 2.3.1.2.3.2 of the Environmental Report and 2.4.12.3.2 of the FSAR. The letter also contains revised content for Section 2.4.13 of the Fermi 3 FSAR, including site-specific porosity data and an updated analysis showing that the radionuclide concentrations predicted at the closest off-site well and at the closest receptor in Lake Erie are less than the 10 C.F.R. Part 20, Appendix B, Table 2, Column 2 limits.

5. I hereby certify under penalty of perjury that the foregoing is true and complete to the best of my knowledge, information, and belief.

Executed in accord with 10 C.F.R. § 2.304(d),

/s/ Peter W. Smith
Peter W. Smith
The Detroit Edison Company
One Energy Plaza
Detroit, MI 48226

Dated at Detroit, Michigan
this 3rd day of February 2011