

PMFermiCOLPEm Resource

From: Olson, Bruce
Sent: Tuesday, January 26, 2010 12:14 PM
To: Randall D Westmoreland
Cc: Kirk LaGory; Fringer, John; FermiCOL Resource
Attachments: Status of 11-23-09 Responses-bao rev-as of 1-18-10.doc

Thanks.....

Bruce Olson
Environmental Project Manager
NRO/DSER/RAP3
301-415-3731

Hearing Identifier: Fermi_COL_Public
Email Number: 756

Mail Envelope Properties (AB7F52B9BFE4CE4EAFCD1B45F02BEA4F319C4B1EB2)

Subject:
Sent Date: 1/26/2010 12:14:05 PM
Received Date: 1/26/2010 12:14:07 PM
From: Olson, Bruce

Created By: Bruce.Olson@nrc.gov

Recipients:
"Kirk LaGory" <lagory@anl.gov>
Tracking Status: None
"Fringer, John" <John.Fringer@nrc.gov>
Tracking Status: None
"FermiCOL Resource" <FermiCOL.Resource@nrc.gov>
Tracking Status: None
"Randall D Westmoreland" <westmorelandr@dteenergy.com>
Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

Files	Size	Date & Time
MESSAGE	124	1/26/2010 12:14:07 PM
Status of 11-23-09 Responses-bao rev-as of 1-18-10.doc		113146

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

**Status of November 23, 2009 Detroit Edison Responses to
U.S. Nuclear Regulatory Commission (NRC) Requests for Additional Information (RAIs)
Fermi Nuclear Power Plant, Unit 3 (Fermi 3)
Combined License Application - Environmental Report**

RAI Number¹	Response Date/ ADAMS Accession No.	Status of Response	Question Summary (RAI)	Full Text (supporting information)	Comments
GE1.2-1 ESRP 1.2 10 CFR 51.45(d)	11/23/09 ML093380365	Not complete. Update needed prior to completion of the draft EIS.	Provide documentation or a description of the status of Coastal Zone Management (CZM) Certification for Fermi 3.	Documented proof of CZM Certification must be provided to the NRC by Detroit Edison before the NRC can issue a combined license. The current status and process for obtaining CZM Certification will be presented in the EIS.	[12/04/09] Response acceptable. The requested status was provided, which included a statement that Detroit Edison is planning to submit a Joint Permit application by July 1, 2010. This date is prior to the date the EIS will be issued and therefore the status will need to be updated prior to completion of the draft EIS.
GE1.2-2 ESRP 1.2 10 CFR 51.45(d)	11/23/09 ML093380365	Not complete. Update needed prior to completion of the draft EIS.	Provide documentation or a description of the status of Clean Water Act Section 401 Water Quality Certification for Fermi 3.	Documented proof of Section 401 Water Quality Certification must be provided to the NRC before the NRC can issue a combined license. The current status and process for obtaining Section 401 Water Quality Certification will be presented in the EIS.	[12/04/09] Response acceptable. The requested status was provided, which included a statement that Detroit Edison is planning to submit a Joint Permit application by July 1, 2010. This date is prior to the date the EIS will be issued and therefore the status will need to be updated prior to completion of the draft EIS.
GE1.2-3 ESRP 1.2 10 CFR 51.45(d)	11/23/09 ML093380365	Not complete. Update needed prior to	Provide documentation or a description of the status of the required Nuclear Waste Fund waste disposal contract with the U.S. Department of Energy	Per the Nuclear Waste Policy Act of 1982, as amended, before a combined license can be issued by the NRC for Fermi 3, Detroit Edison must provide either proof	[12/04/09] Response acceptable. The requested status was provided, which included a statement that Detroit Edison expects to execute the contract

¹ RAI numbers follow a specific form. RAIs apply to a specific section from the Environmental Standard Review Plan (ESRP; U.S. Nuclear Regulatory Commission, 1999. *Standard Review Plans for Environmental Reviews for Nuclear Power Plants*. NUREG-1555. Office of Nuclear Reactor Regulation, Washington, D.C. October, 1999), and the RAI number consists of the relevant ESRP section number followed by a unique number (e.g., the first RAI related to ESRP Section 2.7 would be numbered 2.7-1). If the RAI applies to more than one section of the ESRP, then the next higher section number is used (e.g., if an RAI is applicable to Sections 3.3.4, 3.3.5, and 3.3.6, then the RAI is assigned to Section 3.3, such as 3.3-1).

RAI Number ¹	Response Date/ ADAMS Accession No.	Status of Response	Question Summary (RAI)	Full Text (supporting information)	Comments
		completion of the draft EIS.	(DOE).	that such a contract is in place with DOE or an official document from DOE stating that Detroit Edison is making a good faith effort to get a contract.	documents by July 1, 2010. This date is prior to the date the EIS will be issued and therefore the status will need to be updated prior to completion of the draft EIS.
AQ2.7-2 ESRP 2.7 Reg. Guide 1.111, Sec. C Reg. Guide 1.145, Sec. C Reg. Guide 4.2, Sec. 2.3 10 CFR 51.50 10 CFR 51.70(b) 10 CFR 51 App. A 10 CFR 100.20(c)	11/23/09 ML093380365	Complete	Discuss the impacts of lake/land breeze on atmospheric dispersion estimates. Provide the reference Ryznar, E., et al., 1973, <i>An Investigation of Atmospheric Diffusion in the Vicinity of the Enrico Fermi Atomic Power Plant.</i>	During the site audit, Detroit Edison showed the NRC staff the reference: Ryznar, E., et al., 1973, <i>An Investigation of Atmospheric Diffusion in the Vicinity of the Enrico Fermi Atomic Power Plant.</i> This reference presents the potential impacts of lake/land breeze on atmospheric dispersion along the Lake Erie shoreline where the Fermi 3 facility will be situated. The document is not publically available and is needed for the analysis of air emissions dispersion.	[12/04/09] Response acceptable
AQ5.3.3.1-1 ESRP 5.3.3.1 10 CFR 51.71(d)	11/23/09 ML093380365	Complete	Provide information on the four- cell MDCT (similar to that for the NDCT in ER Table 5.3-17) including the typical number of hours per year in operation.	Detailed information and impact analysis for the NDCT were provided in the ER. Similar information is needed for the MDCT. Even though the MDCT will be operating intermittently, capacity and typical operational patterns are needed for completeness of the impact analysis.	[12/04/09] Response acceptable
AE2.4.2-2 ESRP 2.4.2 10 CFR 51.71(d)	6/19/09 ML091940262 11/23/09 ML093380365	Complete	Provide a copy of the interim monitoring report "Aquatic Ecology Survey, Detroit Edison Company Fermi 3 Project, Interim Report" prepared by AECOM	ER Section 2.4.2 indicated that additional aquatic ecology monitoring was underway and the information in the requested interim report was discussed at	[7/17/09] Response acceptable. Final report to be provided on or before 11/25/09 must be submitted for docketing because it will be cited as a reference in the

RAI Number ¹	Response Date/ ADAMS Accession No.	Status of Response	Question Summary (RAI)	Full Text (supporting information)	Comments
			Environment, and dated December 2008. Provide a more recent version and the final report when available.	<p>the Fermi 3 site audit. This report contains the most recent available information that:</p> <ul style="list-style-type: none"> • evaluates the abundance and occurrence of aquatic organisms in the vicinity of the Fermi site; • identifies the aquatic habitat features in the vicinity of the Fermi site; • provides additional support for statements in the ER that Federal and State-listed threatened and endangered aquatic species have not been observed in the vicinity of the Fermi site; and • evaluates impingement mortality associated with the intake structure based upon the first half of the ongoing one-year monitoring effort. <p>The final report is expected to include the results of the entire one-year monitoring effort for aquatic ecology, including results of the entrainment monitoring at the existing Fermi 2 intake.</p>	EIS. [12/04/09] Final report was provided by Detroit Edison with this RAI response.
AE2.4.2-3 ESRP 2.4.2 10 CFR 51.71(d)	11/23/09 ML093380365	Complete	Provide the most currently available information pertaining to entrainment of aquatic organisms at the Fermi 2 intake.	Entrainment data are needed to understand the potential effects of Fermi 3 operations. The interim report identified in RAI 2.4.2-2 does not contain entrainment data. If there is information available, it would be useful to have a summary of that information.	[12/04/09] Response acceptable.

RAI Number ¹	Response Date/ ADAMS Accession No.	Status of Response	Question Summary (RAI)	Full Text (supporting information)	Comments
AE2.4.2-4 ESRP 2.4.2 10 CFR 51.71(d)	6/19/09 ML091940262 11/23/09 ML093380365	Complete	Provide a copy of the interim monitoring report "Water Quality Survey Detroit Edison Company Fermi 3 Project, Interim Report," prepared by AECOM Environment, and dated December 2008. Provide a more recent version and the final report when available.	The requested interim report was discussed at the Fermi 3 site audit and provides the most recent information about water quality in the vicinity of the Fermi site. The report is not publically available and is needed for the analysis of impacts to be presented in the EIS.	[7/17/09] Response acceptable. Final report to be provided on or before 11/25/09 must be submitted for docketing because it will be cited as a reference in the EIS. [12/04/09] Final report was provided by Detroit Edison with this RAI response.
CR4.1.3-4 ESRP 4.1.3 10 CFR 51.71 (d) 36 CFR 800 43 CFR 10	11/23/09 ML093380365		Provide a document outlining standard procedures that Detroit Edison would follow in the event that unanticipated archaeological resources or human burials are identified during construction, including procedures required by applicable State and Federal laws for human burials.	Information included in this documentation is critical to ensuring a thorough and complete EIS review of project impacts. This information will be used to complete the NEPA analysis and to support compliance with the Section 106 process.	[12/9/09] Response unacceptable. There is insufficient detail provided in the response. Detroit Edison should provide the following additional information: (1) the name of the "appropriate authorities," referenced in the response, that would be contacted in the event of an unanticipated discovery of archaeological resources or human remains during construction activities; and (2) for each protective measure, a list of the applicable State and Federal laws, statutes, and other regulations related to the protection of archaeological resources and human remains that will be complied with.
HH5.4.2-2 ESRP 5.4.2 10 CFR 50.34a	11/23/09 ML093380365	Complete	Provide a description of the methodology used to calculate doses for the general population, and the population average input values that were used. Provide the consumption/usage rates used in dose calculation for population.	In Section 5.4.1.2 on page 5-108 of the ER it states that the input parameters for the gaseous pathway are presented in Table 5.4-3. Table 5.4-3 does not appear to contain information on consumption/usage rates for the population. ER Table 5.4-2 lists annual consumption/usage rates for MEI for liquid and gaseous pathways, but is not discussed in	[12/04/09] Response acceptable

RAI Number ¹	Response Date/ ADAMS Accession No.	Status of Response	Question Summary (RAI)	Full Text (supporting information)	Comments
				the text. Population average values are different from these and are not shown.	
HH5.4.3-1 ESRP 5.4.3 10 CFR 20.1201	11/23/09 ML093380365	Not complete	Provide occupational dose calculations from normal operation of Fermi Unit 3 (The occupational dose should also include dose from existing Fermi 1 and Fermi 2 sources.)	Provide occupational doses from normal operations. ESRP Section 5.4.3.III(3) recommends inclusion of "an estimate of the collective occupational dose using the format of Table 5.4.3-2." Provide collective occupational doses, or justify their exclusion.	<p>[12/04/09] Response unacceptable.</p> <p>Detroit Edison estimated the annual collective dose from the operation of Fermi Unit 3 at about 79 man-rem using values in the ESBWR DCD rev 5. This dose estimate appears to be appropriate. Detroit Edison tried to demonstrate that the contribution from other existing sources is negligible. The conclusion that the contribution from other sources is small may be correct but the approach used to demonstrate this is not acceptable.</p> <p>To calculate occupational dose, Detroit Edison used the estimated maximum (unshielded) dose to construction workers of 72.3 mrem/yr, multiplied this value by the time workers would spend inside radiological controlled areas (43,931 person-hr according to DCD rev 5), and then proportionately reduced the value to account for shielding. We believe the 43,931 person-hr is too low, as this would indicate that there would be only about 22 workers (assuming that one full time worker would be there for 2,000 hr/yr), and it only considers workers inside the radiological controlled areas rather than all</p>

RAI Number ¹	Response Date/ ADAMS Accession No.	Status of Response	Question Summary (RAI)	Full Text (supporting information)	Comments
					<p>monitored workers. This small number is not representative of the number of monitored worker at a typical reactor. Monitored workers include workers that do not spend all their time in radiological controlled areas. We suggest Detroit Edison use an estimate of the actual number of monitored workers at Fermi Unit 3 or use values from NUREG-0713 (e.g., 1,072 for BWRs in 2007).</p> <p>[12/16/09] Reference to Table 5.4.3-2 in the ESRP is incorrect (should be to Table 5.4.3-3). Recommend Detroit Edison revise response by eliminating calculations provided in 11/23/09 response, and instead present only the ESBWR DCD estimate of total occupational dose (79 man-rem/yr) from Fermi 3 together with a statement that dose from Fermi 1, Fermi 2, and the planned Fermi 2 ISFSI would be very small incremental additions to total dose, and governed by standards in 10 CFR Part 20. The proposed revisions to the COLA in the RAI response are considered acceptable.</p>
<p>HY4.2.1-3 ESRP 4.2.1 10 CFR 51.70(b)</p>	<p>11/23/09 ML093380365</p>	<p>Complete</p>	<p>Model the dewatering effects of Fermi 3 pre-construction and construction activities on groundwater heads of different materials. Provide the input and output files (in electronic format), calibrations, and sensitivity analysis for the model.</p>	<p>MODFLOW was used to estimate drawdown across the Fermi site during dewatering operations. During the site audit, the NRC staff concluded that the spatial extent of the clay dikes and rock fills at the Fermi site was not fully characterized, but was incorporated into the MODFLOW</p>	<p>[12/04/09] Response acceptable.</p>

RAI Number ¹	Response Date/ ADAMS Accession No.	Status of Response	Question Summary (RAI)	Full Text (supporting information)	Comments
				<p>model. The existing model treats the artificial rock fills, the natural lacustrine clay, and glacial tills as one hydrogeologic unit, though they have very different hydraulic properties according to slug and packer test data. In addition, the parameters used in the model were based on a regional groundwater study and therefore may not reflect the hydrologic characteristics of the local materials near the Fermi site.</p> <p>The model should use locally measured hydraulic properties of the geologic materials as input parameters and consider the presence and effect of the rock fills and clay dikes under the Fermi site, the extent of the Fermi 3 excavated area, recharge rates, and boundary conditions.</p>	
<p>HY4.2.1-9 ESRP 4.2.1 10 CFR 51.50</p>	<p>6/19/09 ML091940262 11/23/09 ML093380365</p>	<p>Complete</p>	<p>Provide descriptions of the best management practices (BMPs) to be used for the disposal of the spoil from Fermi 3.</p>	<p>Detroit Edison has indicated that BMPs will be developed after the layout of Fermi 3 is finalized. These will provide an important basis for the assessment of construction impacts in the EIS.</p>	<p>[7/17/09] Response unacceptable. Detroit Edison provided a copy of a Michigan Department of Environmental Quality BMP for spoil piles and stated that it would comply with this BMP. NRC believes this BMP is too general, and the staff needs to be provided with more information on the specific BMPs that Detroit Edison will employ for specific dredge/spoil materials at specific storage/disposal areas. We also need to know when this information will be provided for docketing.</p> <p>[8/31/09] NRC clarified that it</p>

RAI Number ¹	Response Date/ ADAMS Accession No.	Status of Response	Question Summary (RAI)	Full Text (supporting information)	Comments
					specifically needs information on the planned locations of storage/disposal areas, specific dredge/spoil material to be placed at each location, and specific BMPs that Detroit Edison will employ at each location. [12/04/09] Response acceptable.
HY4.2.1-11 ESRP 4.2.1 10 CFR 51.50	11/23/09 ML093380365	Complete	Provide specific information on the groundwater monitoring programs (including the number and location of wells, well depth, aquifers sampled, chemical parameters monitored, and frequency of monitoring) during pre-construction and construction phases of Fermi 3.	Detroit Edison has indicated that specific groundwater monitoring programs will be developed after the layout of Fermi 3 is finalized. The information will be used to evaluate the impacts of construction on groundwater.	[12/04/09] Response acceptable.
HY5.2-1 ESRP 5.2 10 CFR 51.50	11/23/09 ML093380365	Complete	Provide specific information on groundwater monitoring (including the number and location of wells, well depth, aquifers sampled, chemical parameters monitored, and frequency of monitoring) during Fermi 3 operations.	Detroit Edison has indicated that specific groundwater monitoring programs for the operational phase will be developed after the layout of Fermi 3 is finalized. These monitoring programs will provide an important basis for the assessment of operational impacts.	[12/04/09] Response acceptable.
LU4.1.1-1 ESRP 4.1.1 10 CFR 51.45 10 CFR 51.71	11/23/09 ML093380365	Complete	Provide a statement to confirm that no borrow materials would be obtained onsite. Identify where spoils materials would be disposed of.	At the site audit, Detroit Edison indicated that no borrow materials would be obtained onsite. It is unclear where spoils material would be disposed of. This information is needed for the analysis of land use impacts to be presented in the EIS.	[12/04/09] Response acceptable
SE2.5.2-1 ESRP 2.5.2 10 CFR 51.45	11/23/09 ML093380365	Not complete	Provide information on the size and nature of the heavy construction industry and construction labor force within the	More detailed information is needed to confirm assumptions on the availability of construction workers within the local area to	[12/16/09] Response unacceptable. Please provide source reference for Table 2 of response.

RAI Number ¹	Response Date/ ADAMS Accession No.	Status of Response	Question Summary (RAI)	Full Text (supporting information)	Comments
10 CFR 51.70			region (size of labor force, unemployment rates, wages) specific to the job categories that would be used to support Fermi 3 construction (i.e., boilermakers, pipefitters, electricians, ironworkers, insulators, etc.).	further characterize impacts by jurisdiction on population, housing, public services, education, and public utilities.	[1/8/10] Detroit Edison agreed to revise the ER to include a description of how the information in Table 2 was compiled.
SE2.5.2-2 ESRP 2.5.2 10 CFR 51.45 10 CFR 51.70	11/23/09 ML093380365	Complete	Provide information on the job categories that would be recruited for the operations workforce, and the size of the labor force, unemployment rates, and wages for these laborers within the region.	More detailed information is needed to confirm assumptions on the availability of operations workers within the local area to further characterize impacts by jurisdiction on population, housing, public services, education, and public utilities.	[12/16/09] Response acceptable.
SE4.4.2-7 ESRP 4.4.2 ESRP 5.8.2 10 CFR 51.45 10 CFR 51.70	11/23/09 ML093380365	Not complete	Provide a list of job categories and wages/salaries of the construction and operations workforce.	The data are needed to confirm assumptions used to estimate local and non-local workforce; further characterize impacts on population, housing, public services, education, and public utilities based on demographic assumptions; and better characterize the economic impacts of the proposed project (ER Sections 4.4.2, 4.4.2.1, 4.4.2.4.6, 5.8.2.1, and 5.8.2.7).	[12/16/09] Response unacceptable. Please provide source reference for Table 2 of response. [1/8/10] Detroit Edison agreed to revise the ER to include a description of how the information in Table 2 was compiled.
SE4.4.2-10 ESRP 4.4.2 ESRP 5.8.2 10 CFR 51.45 10 CFR 51.70	11/23/09 ML093380365	Complete	Provide a copy of Level of Service (LOS) analysis/traffic study.	This information is needed to evaluate 1) carrying capacity and condition of roads and highways during construction, operation, and outage periods; 2) relevant transportation and traffic information (i.e., likely commuter [including construction, operation, and periods of outages] and emergency evacuation routes) in Michigan and Ohio; 3) availability and types of public transportation;	[1/8/10] Response acceptable.

RAI Number ¹	Response Date/ ADAMS Accession No.	Status of Response	Question Summary (RAI)	Full Text (supporting information)	Comments
				4) proposed road modifications that may affect traffic flow to and from the Fermi site; and 5) hourly present and future rates of worker flow through Fermi security gates (ER Sections 4.4.2.4.2 and 5.8.2.4.2). In ER Section 4.4.2.4.2, Detroit Edison committed to supply this information within one year of submittal of the COLA.	
TE2.4.1-2 ESRP 2.4.1 10 CFR 51.71 (d)	6/19/09 ML091940262 11/23/09 ML093380365	Complete	Provide the interim report on the confirmatory updated terrestrial ecology survey for the first six months of study. Provide a more recent version and the final report when available.	The confirmatory terrestrial ecology survey was begun in July 2008 and is to be completed in July 2009. Results of this survey will be critical to the EIS analysis of ecological impacts.	[7/17/09] Response unacceptable. The requested interim report must be submitted for docketing because the NRC needs to cite it as a reference in the EIS. Further, we understand that the final report will be transmitted on 11/25/09, and this must be submitted for docketing as well. [12/04/09] Response acceptable. Final report was provided by Detroit Edison with this RAI response.
TE2.4.1-9 ESRP 2.4.1 10 CFR 51.71 (d)	11/23/09 ML093380365	Complete	Provide the Michigan DNR protected species assessment report mentioned in a letter from Michigan DNR to Ralph Brooks dated November 28, 2007.	This report on the subject of protected species will be critical to the analysis of ecological impacts that will be presented in the EIS. The report is not available elsewhere.	[12/04/09] Response acceptable.
TE2.4.1-10 ESRP 2.4.1 10 CFR 51.71 (d)	11/23/09 ML093380365	Complete	Provide point maps of any protected species observed by Black & Veatch (B&V) or other contractors in planned spring and summer 2009 field observations.	The confirmatory terrestrial ecology survey was begun in July 2008 and is to be completed in July 2009. Provide point maps of any protected species observed during these surveys. Results will be critical to the EIS analysis of	[12/04/09] Response acceptable.

RAI Number ¹	Response Date/ ADAMS Accession No.	Status of Response	Question Summary (RAI)	Full Text (supporting information)	Comments
				ecological impacts.	
TE4.3.1-7 10 CFR 51.71 (d)	7/31/09 ML092290713 11/23/09 ML093380365	Complete	Clarify that the column in ER Table 4.3-4 that is currently labeled "Acres Impacted" represents the percentage of the acreage of that type in the region, not the actual acres impacted.	The values in this table appear to be too small to represent the number of acres affected. These data are needed to complete the analysis to be presented in the EIS.	[9/10/09] Response acceptable. [11/23/09] Additional information was provided including a markup of the ER.
TR4.8.3-1 EIS Section 4.8.3	11/23/09 ML093380365	Complete	Provide a list of the major types and quantities of construction materials required to construct the proposed 1600 MWe reactor similar to that provided in Section 10.2.2.1 of the ER for a 1300 MWe reactor.	This information provides the basis for estimation of the transportation impacts of construction material shipments for presentation in Section 4.8.3 of the EIS.	[12/04/09] Response acceptable.