## PMFermiCOLPEm Resource

**From:** Stephen Lemont
**Sent:** Wednesday, January 21, 2009 7:31 AM
**To:** Randall D Westmoreland
**Cc:** Laura Quinn; Kirk LaGory; John Hayse; FermiCOL Resource
**Subject:** Draft Final Fermi 3 Site Audit Information Needs
**Attachments:** Fermi 3 Information Needs 01-20-09.doc

**Importance:** High

Randy,

Attached please find the Draft Final Information Needs for the Fermi 3 site audit. These incorporate additional comments received after I sent you the Draft Information Needs. To see the differences between the draft and draft final versions, I would suggest that you use the compare documents feature in MS Word. If you have any questions, please let me know.

Based on any comments and/or questions we receive from DTE on the information needs, we will prepare the Final Information needs for the site audit.

Thanks,

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**INFORMATION NEEDS FOR THE**
**FERMI NUCLEAR POWER PLANT, UNIT #3 (FERMI 3)**
**ENVIRONMENTAL SITE AUDIT**
**Draft**
**January 5, 2009**

## GENERAL INFORMATION NEEDS (GE)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **GE-1** | Provide an overall site tour that shows:<br>• The proposed Fermi 3 project area,<br>• Existing Fermi 1 and 2 facilities,<br>• Proposed interfaces between Fermi 3 infrastructure and existing infrastructure, and<br>• Surrounding areas and features. |
| **GE-2** | Provide originals of all Environmental Report Rev. 0, September 2008 (the "ER") figures in .jpeg, .png or .tif format at a resolution of at least 300 dpi, and sized correctly. (Note: these are not needed at the site audit itself, but should be provided shortly thereafter.) |
| **GE-3** | Provide separate layers for GIS files given in the attached list as shapefiles. (Note: these are not needed at the site audit itself, but should be provided shortly thereafter.) |
| **GE-4** | Provide all of the ER references in either electronic or hard copy form. For large documents that will be regularly used by the audit team (e.g., Combined License [COL] Application, Design Control Document [DCD] Rev. 4), provide both hard copy and electronic versions, and have at least two copies for review. For electronic copies, provide multiple computer terminals (e.g., laptops) for viewing these at the site audit. |
| **GE-5** | Provide a copy of the draft Environmental Protection Plan (EPP). |
| **GE-6** | Provide or make available copies of all permits related to the existing Fermi 2 reactor. |
| **GE-7** | Provide copies of the calculation packages for the PAVAN, XOQDOQ, LADTAP, GASPAR, SACTI, MACCS2, and CORMIX models. Note, these are also requested in individual topical areas below (AC-3, AQ-5, AQ-9, HH-1, HY24) |
| **GE-8** | Provide two hard copies and electronic access to DCD Rev. 5. |

## ACCIDENTS (AC)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **AC-1** | Provide a knowledgeable expert to discuss the differences between the PAVAN discussion in Section 2.7 and those in Section 7.1 of the ER. |
| **AC-2** | Provide a knowledgeable expert to discuss issues related to the Design Basis Accident (DBA) analysis including the locations of the DBA release point, and implications of differences between the current DCD version (Rev. 5), and that used for the ER (i.e., Rev. 4) (see ER Section 7.1). |
| **AC-3** | Provide a knowledgeable expert to discuss assumptions and input parameters used for consequence analyses (ER Section 7.2), including the use of SECPOP2000 for estimating agricultural census and population distribution. Also, please provide electronic copies of MACCS2 code input and output files for the base case calculation as well as sensitivities with respect to the release height, energy, meteorology, and precipitation assumptions. Furthermore, make available the documentation on any supporting calculations or assumptions that were used in the analysis |
| **AC-4** | Provide a knowledgeable expert to discuss the groundwater and surface water pathways (ER Section 7.2). |
| **AC-5** | Provide a knowledgeable expert to discuss details on SAMA/SAMDA analyses results, and make available documentation on supporting assumptions and calculations (ER Section 7.3). |

## AQUATIC ECOLOGY (AE)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **AE-1** | Provide a tour of:<br>• Aquatic habitats and water bodies (i.e., Lake Erie shoreline, quarry lakes, Swan Creek, and other waters and wetlands) on or adjacent to the Fermi site, including but not necessarily limited to those associated with the portions of Lagoona Beach Unit of the Detroit River International Wildlife Refuge (DRIWR).<br>• Existing cooling water system, including the cooling basin, natural draft cooling tower, intake structure, trash rack, traveling screens, sluiceway return system, and cooling water discharge into Lake Erie.<br>This tour can be combined with the Terrestrial Ecology tour requested in Item No. TE-1. |
| **AE-2** | Provide copies of any and all correspondence with Federal and State agencies (U.S. Fish and Wildlife Service [USFWS], Michigan Department of Natural Resources [DNR], Ohio DNR, Canadian agencies, etc.) regarding potential impacts to aquatic species and monitoring studies for the Fermi facility. |
| **AE-3** | Provide a knowledgeable expert to discuss cumulative impacts of other past, present, and reasonably foreseeable future actions on the aquatic resources in the region. |
| **AE-4** | Provide a knowledgeable expert to discuss Federal- and State-listed threatened and endangered aquatic species in the vicinity of the Fermi site. |
| **AE-5** | Provide a knowledgeable expert to discuss commercial and recreational fisheries statistics and issues in surface waters near the Fermi site and the related impact analyses presented in the ER (Section 5.3.1.2). |
| **AE-6** | Provide a knowledgeable expert to discuss Best Management Practices (BMPs) associated with construction and operation/maintenance of the plant and transmission corridors, especially related to aquatic habitats. |
| **AE-7** | Provide a knowledgeable expert to discuss construction and operation of the proposed makeup water system intake structure, including intake design, areas and aquatic habitats and species likely to be impacted, information on proposed timing and length of the construction period, predictions of the need for future dredging in the vicinity of the intake, and mitigation plans for potentially impacted aquatic and habitats. |
| **AE-8** | Provide a knowledgeable expert to discuss construction of the proposed makeup water system discharge structure and cooling discharge structures, including discharge locations and design, areas and aquatic habitats and species likely to be impacted, as well as any information on proposed timing and length of the construction period. |
| **AE-9** | Provide a knowledgeable expert to discuss the thermal regimes, thermal plume modeling, and the potential impacts to aquatic biota from changes in water temperatures associated with the operation of the proposed cooling water discharge. |
| **AE-10** | Provide a knowledgeable expert to discuss the current status of aquatic environmental permits and consultations (National Pollutant Discharge Elimination System [NPDES], Section 404 Wetlands Permits/Issues, and threatened and endangered species issues related to the proposed makeup water intake systems, etc.). Provide a copy of the existing Fermi 2 NPDES permit documentation for review. |
| **AE-11** | Provide a knowledgeable expert to discuss the aquatic ecological monitoring program activities conducted in the past and those currently underway (as noted in Section 2.4.2 of the ER). Provide copy of draft report for the ongoing ecological monitoring program if available. |

## AQUATIC ECOLOGY (Continued)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **AE-12** | Provide a knowledgeable expert to discuss the potential for impingement and entrainment of aquatic organisms at makeup water intake with regard to:<br>• Species of fish that are impinged at the existing intake facility and/or could be entrained or impinged by the proposed modifications to the facility.<br>• Estimates of the magnitude of the potential impingement and entrainment impacts on aquatic species populations and the aquatic ecosystems in Lake Erie, especially the western basin.<br>• Estimates of the transit time from the intake structure to the point of discharge (e.g., via sluiceway from the traveling screens). |
| **AE-13** | Provide a knowledgeable expert to discuss and provide information regarding locations of wetlands and perennial and intermittent streams crossed by the transmission line right-of-way (ROW). |
| **AE-14** | Provide a knowledgeable expert to discuss and provide information regarding the occurrences (location and abundance) of important aquatic species discussed in Section 2 of the ER. |
| **AE-15** | Provide a knowledgeable expert to discuss and provide an overview of the aquatic biota and aquatic habitats that are present at alternative sites F, N, A, and C and the impacts that could occur to those biota and habitats from construction and operations of a nuclear power facility. This includes:<br>• Potential occurrence of Federal- and State-listed threatened and endangered aquatic species in the potential cooling water sources.<br>• Sensitive aquatic habitats in the vicinity of alternate sites F, N, A, and C (including streams, ponds, lakes, and wetlands). |

## ALTERNATIVES (AL)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **AL-1** | Provide a knowledgeable expert familiar with the alternative power assessment for Detroit Edison Energy (DTE) presented in ER Section 9.2.2. This expert should be able to discuss and/or provide information on how the assessments of alternative power provided in the ER may be impacted by various regulatory and policy developments in Michigan.<br>• Whether renewable energy alternatives must be located within (or adjacent to) the DTE service area to be considered viable (ER Section 9.2.2.1.4 suggests that to be the case for geothermal, but ER Section 9.2.2.1.1 appears to characterize the wind resources in all offshore areas, not just those offshore areas opposite the DTE service area).<br>• Whether the DTE analysis of the feasibilities and values of alternative technologies and strategies was compared against priority policy options being developed by Michigan Climate Action Council's Energy Supply Technical Work Group to reduce greenhouse gases (GHG).<br>• How the Michigan Public Service Commission's Michigan Renewable Energy Program activities were considered in the analysis of alternative renewable technologies.<br>• Why the use of renewable technologies in distributed systems (especially solar photovoltaic [PV]) that could reduce overall power demands was not identified as a possible strategy to replace a base load nuclear plant.<br>• Why hydroelectric power from Canada was not identified as possible purchased power to replace Fermi 3 under ESRP 9.2.1Alternative Not Requiring New Generating Capacity . |
| **AL-2** | Provide a knowledgeable expert to discuss the following technical issues regarding assessment of alternative energy technologies:<br>• Whether other yet-to-be-developed sources of landfill gas proximate to existing DTE natural gas-fired power plants were considered for co-firing in those plants.<br>• Clarifications of statements contained in ER Section 9.2.2.1.1 that increasing installed capacity of wind turbines would effectively increase the average reliable capacity factor (from the typical 20-30% to > 90%) for wind energy facilities.<br>• The basis for the statement in 9.2.2.1.1 that thermal energy storage (TES) technology for solar thermal power plants is not economical. |
| **AL-3** | Provide a knowledgeable expert on the impacts of cooling system options for coal-fired alternatives to Fermi 3. This expert should be able to discuss the relationship between this analysis and the one provided in ER Section 9.4.and speak to the following related issues:<br>• Alternate intake, water supply, performance penalties, and ecological impacts of other cooling system alternatives such as dry and wet/dry hybrid cooling.<br>• The feasibility and impacts of alternative coal-fired plants using some other cooling water source besides Lake Erie (e.g., a coal-fired alternative not located adjacent to Lake Erie).<br>• The analysis of cooling system impacts to other thermoelectric power alternatives such as natural gas-fired boilers, biomass boilers, and solar thermal plants.<br>• Impacts of cooling for fossil fuel plants with respect to available topic-related data from the U.S. Department of Energy (DOE) and DOE-National Energy Technology Laboratory (NETL) (e.g., DOE's 2006 Report to Congress on the Energy-Water Nexus and NETL's evaluation of impacts from future fossil fuel plants.) |

## ALTERNATIVES (Continued)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **AL-4** | Provide a knowledgeable expert to discuss how the data in ER Tables 9.2-5 and 9.2-6 (from EPA Grid database and Natural Gas Supply Association, respectively) compare with data from a National Environmental Technology Laboratory (NETL) study of hypothetical configurations of new fossil fuel plants expected to be built within the planning horizon. |
| **AL-5** | Provide a knowledgeable expert to discuss data presented in ER Table 9.2-7, in particular the relationship between water quality impacts and the location of the proposed or alternative generation technology. |
| **AL-6** | Provide a knowledgeable expert to discuss the use of circa-2000 National Renewable Energy Laboratory (NREL) maps appearing in a DOE/Energy Information Administration (EIA) study of resource potential on Indian lands versus other sources of information (e.g., the latest available NREL renewable resource maps for solar PV, concentrating solar power, geothermal, and biomass/biofuels).. |
| **AL-7** | Provide a knowledgeable expert to discuss how the data from the State of Michigan's 21st Century Energy Plan were used in evaluating alternatives and whether any correction was made for the fact that the Energy Plan has a much larger region of interest (ROI) than the DTE service area. Provide a knowledgeable expert to define the ROI against which the alternative energy technology assessment was conducted. |
| **AL-8** | Regarding valuations of alternative sites with respect to impacts on water quality, provide a knowledgeable expert who can:<br>• Clarify the apparent discrepancy between environmental screening, for which the highest value is assigned to sites that are more than 1 mile from a water body, and technical evaluation of water source availability and adequacy (presumably for cooling), which assigns the highest value to sites where the water resource is "onsite, adjacent, or within 5 miles."<br>• Discuss the manner in which potential impacts from development of an on-site well field on other groundwater uses were identified and assessed (e.g. proximity to private drinking water supplies, contamination potential, potential cones of depression, etc)<br>• Discuss how wellhead protection programs were considered in identifying the location of potential well fields and in the evaluation of groundwater adequacy and sufficient.<br>• Discuss how river flow data were obtained and applied to the assessment of the adequacy of available surface water supplies. |
| **AL-9** | Provide a knowledgeable expert to discuss how the initial 24 candidate sites were evaluated and how, specifically, 16 sites were eliminated, whether there was a minimum environmental or technical score that needed to be achieved to avoid elimination, whether there was a priority order among impact categories, and whether mitigation potential for adverse conditions were considered as a way to improve the attractiveness of a site. |
| **AL-10** | For the site acreages appearing in ER Table 9.3-1, provide a knowledgeable expert to clarify what percentages of the site totals are available for new reactor construction among the DTE generation sites listed. |

## ALTERNATIVES (Continued)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **AL-11** | Provide a knowledgeable expert who can speak to the following issues associated with the alternative heat dissipation system evaluation:<br>• The feasibility of a hybrid once-through/closed loop cooling system (i.e. a system with the capability to elect to recirculate water or not).<br>• The feasibility of a wet/dry hybrid cooling system (e.g., water sprays on incoming airstream of a dry cooling condenser or incoming air passing through saturated media filters positioned before the dry condenser) given local meteorological conditions of temperature and humidity.<br>• The feasibility of plume abatement technology.<br>• Provide a more quantitative discussion on the performance penalties associated with various cooling system alternatives. |
| **AL-12** | Provide two hard copies and electronic access to the site selection report (both the original site selection study completed in 2006 and the 2008 update on which the alternative sites discussion in ER Section 9.3 is based). |

## AIR QUALITY/METEOROLOGY/NOISE (AQ)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **AQ-1** | Provide a detailed, scaled map of the Fermi site showing site boundaries, air emission and noise sources (existing and planned), and nearby sensitive receptors (e.g., residences, schools, hospitals, nursing homes, churches); electronic file is preferred to read off the real coordinates such as UTM or latitude/longitude. |
| **AQ-2** | Provide a tour of the following:<br>• Existing and proposed locations of major indoor/outdoor noise sources (cooling towers, transformers, etc.) and control measures on the Fermi site.<br>• Offsite noise sources that would also affect Fermi 3 receptors.<br>• Existing onsite meteorological tower.<br>• Location of proposed meteorological tower.<br>• Locations of nearby sensitive receptors (residences, schools, hospitals, nursing homes, daycare centers, etc.). If possible, a windshield survey of these sites would be preferred, but indication of locations on a map would be acceptable.<br>• Major existing air emission sources and control equipment (boilers, diesel generators, etc.), and their release points on the Fermi site.<br>• Any other meteorological equipment.<br>As part of this tour, include a meeting with the staff who operate and maintain the meteorological equipment.<br>Note, this tour can be combined with that requested in HH-2. |
| **AQ-3** | Provide a knowledgeable expert who can discuss any noise complaints and their resolution. |
| **AQ-4** | Provide a knowledgeable expert who can discuss:<br>• The basis of the meteorology, air quality, and noise sections of the ER (Sections 2.5.5 and 2.7).<br>• Variations of meteorological variables and air dispersion patterns due to the large water body (Lake Erie).<br>• Air quality standards attainment status of Monroe County and the Fermi site. |
| **AQ-5** | Provide input and output data (including original and processed meteorological data) used for the X/Q and D/Q calculations presented in ER Section 2.7.4 (for the PAVAN and XOQDOQ models). Note, this is also requested in Item No. HH-1. |
| **AQ-6** | Provide relevant data (original data and output file), and indicate software or program if any used for calculating meteorological data summaries such as wind roses, wind persistence, etc. |
| **AQ-7** | Provide a knowledgeable expert to make available and discuss the assumptions to estimate Leq at the source for construction heavy equipment in ER Section 4.4.1.1.6. |
| **AQ-8** | Provide a knowledgeable expert to discuss the cooling system in sufficient detail to evaluate issues related to noise and cloud formation from the cooling towers (ER Sections 5.3.3.1.4-5.3.4.2). |
| **AQ-9** | Provide input and output data (including original and processed meteorological data) used for the X/Q calculations and cooling tower impact analysis presented in ER Section 5.3.3 (for the SACTI model). |

## AIR QUALITY/METEOROLOGY/NOISE (Continued)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **AQ-10** | Provide a knowledgeable expert to provide the rationale for selecting the surface roughness height of 100 cm typical of industrial facilities (ER Section 5.3.3.1). The general area around the facility where the plume from a cooling tower is dispersed is a rural environment and, thus, a surface roughness height of 100 cm seems quite high. |
| **AQ-11** | Provide a knowledgeable expert to:<br>• Discuss impact analysis for the 4-cell mechanical draft cooling tower.<br>• Provide the reference for drift droplet spectrum data in ER Table 5.3-17. |
| **AQ-12** | Provide a knowledgeable expert to discuss the noise analysis. Provide relevant data (input data including octave-band sound levels, directivity, emission point, and receptor grids, and output file) used for the Cadna/A noise model. |
| **AQ-13** | Provide a knowledgeable expert to discuss the content provided in the meteorological monitoring section (ER Section 6.4). |
| **AQ-14** | Provide a knowledgeable expert to discuss cumulative impacts of other past, present, and reasonably foreseeable future actions on air quality in the region. |

## BENEFIT-COST BALANCE (BC)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **BC-1** | Provide a knowledgeable expert who can discuss estimated spent fuel management costs. |

## CULTURAL AND HISTORIC RESOURCES (CR)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **CR-1** | Provide a tour to include the following:<br>• The aboveground area of potential effect for Fermi 3 and all properties recommended eligible for the National Register of Historic Places (NRHP)—one 4-building historic district and 19 individual properties (ER Section 2.5.3.5).<br>• The exterior of Fermi 1, currently under consideration for NRHP-eligibility (ER Section 2.5.3.5).<br>• The area in Lake Erie of archaeological work around the Fermi 3 discharge location. |
| **CR-2** | Provide copies of all consultation correspondence between the applicant and the SHPO, Native American Tribes, and interested parties, and provide the status of any outstanding correspondence. Provide a knowledgeable expert to discuss the results of consultations with these entities to date. |
| **CR-3** | Provide copies of all survey reports and documentation used to prepare ER Sections 2.5.3 and 4.1.3. |
| **CR-5** | Provide a knowledgeable expert to:<br>• Explain the approach taken to identify the areas of potential effect and identify cultural and historic resources.<br>• Describe the properties recommended as NRHP-eligible, including the one 4-building historic district, the 19 individual properties, and Fermi 1.<br>• Discuss the potential impacts and NEPA/Section 106 effects of the project on these recommended NRHP-eligible properties and other cultural resources that may not be NRHP-eligible.. |
| **CR-5** | Provide a knowledgeable expert to describe the process used to identify interested Tribes and other parties regarding cultural resources. |
| **CR-6** | Provide copies of the documentation of the procedures and controls that DTE will implement during construction and operations (including any work conducted as part of the Limited Work Authorization (LWA) rule and/or other pre-construction and site preparation activities, as applicable) to address the unanticipated discovery of archaeological resources and to ensure compliance with any relevant burial laws. |
| **CR-7** | Provide a knowledgeable expert to discuss project specific LWA and/or other "pre-construction" activities and locations, as applicable, so that impacts to cultural resources can be properly evaluated. |
| **CR-8** | Provide a knowledgeable expert to discuss the cumulative effects of the project and other past, present, and reasonably foreseeable future actions on cultural resources, as well as those associated with any LWA activities and/or other pre-construction work. |
| **CR-9** | Provide copies of surveillance level information used to evaluate cultural resource impacts at alternative sites F, N, A, and C. |
| **CR-10** | Provide a knowledgeable expert to discuss the activities to determine the NRHP-eligibility of Fermi 1 and other sites, and the results of these activities to date. |
| **CR-11** | Provide a knowledgeable expert to discuss the procedures used to protect cultural resources during ROW construction and maintenance. |

## FUEL CYCLE (FC)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **FC-1** | Provide a knowledgeable expert to discuss the proposed plant features and reactor characteristics and their use in estimating uranium fuel cycle impacts for comparison to 10 CFR 51.51 Table S3 values. Note that this information need will be discussed in a telephone conference between NRC and the applicant rather than during the site audit. |
| **FC-2** | Provide a knowledgeable expert to discuss the releases of Rn-222 and Tc-99 and their dose impacts. Note that this information need will be discussed in a telephone conference between NRC and the applicant rather than during the site audit. |

## HUMAN HEALTH (HH)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **HH-1** | Please provide input and output data and calculation packages, and a knowledgeable expert who can discuss application of the following computer codes:<br>• LADTAP<br>• GASPAR<br>• XOQDOQ.<br>Note, XOQDOQ input and output are also requested in AQ-5. |
| **HH-2** | Please provide a tour, aerial photographs, or maps that show nearby residents and sensitive receptors (residences, schools, hospitals, nursing homes, daycare centers, etc.). (See Item No. AQ-1.) The tour can be part of the tour requested in Item No. AQ-2. |
| **HH-3** | Provide a knowledgeable expert to discuss the estimated gaseous effluent source terms used in the analysis. |
| **HH-4** | Provide a knowledgeable expert to discuss the calculation of doses to construction workers, including the assumptions and models used. Issues to be discussed will include the number and locations of construction workers who will be exposed to the radiation sources at the site and the amount of time per year that they will spend at those locations. Areas of interest also include the likely direct exposure sources, liquid and gaseous radiological source terms and release points from Fermi 2 including X/Q data to estimate radiation dose rates and airborne radioactivity concentrations during construction at the site, and the assumptions used to produce those estimates. |
| **HH-5** | Provide a knowledgeable expert to discuss the distances from the proposed reactor to the nearest site boundary for each radial sector, and the location of the nearest residence, milk cow, milk goat, meat animal, and vegetable garden larger than 50 $m^2$ to a distance of 5 miles. |
| **HH-6** | Provide a knowledgeable expert to discuss radiation doses from sources of direct radiation to the maximally exposed individual, the collective doses from direct radiation sources to the population within 50 miles of the facility, and the occupational collective dose from sources of direct radiation. |
| **HH-7** | Provide a knowledgeable expert to discuss exposure pathways and the calculation of doses to the public and populations, gardens, wells, water intakes, fisheries, including seasonal variations in the exposure pathways. |
| **HH-8** | Provide a knowledgeable expert to discuss the transit time of each facility discharge stream containing liquid radwaste discharge, from the point at which the stream enters an unrestricted area to the identified location, and the estimated stream dilution at that location and the stream discharge in $m^3$/sec. |
| **HH-9** | Provide a knowledgeable expert to discuss the projected population five years from the time of the licensing action; the present annual milk, vegetable and meat production; and the estimated direct radiation doses from sources within the site for each radial sector out to distances of 50 miles from the reactor. |
| **HH-10** | Provide a knowledgeable expert to discuss the present commercial fish and invertebrate catch from waters within 50 miles downstream of the facility radwaste discharge; and major catch locations, their distance from the facility radwaste discharge and the amount caught within 50 miles of the facility that is consumed. Issues to be discussed will include the transit time from the point at which the discharge stream enters an unrestricted area to each major catch location, the estimated dilution at each location, and the basis for calculating transit time and dilution. |

## HUMAN HEALTH (Continued)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **HH-11** | Provide a knowledgeable expert to discuss the irrigation rate, crop yield, annual production, and growing period for irrigated land using water withdrawn within 50 miles of the facility radwaste discharge (downstream or radius); the crop type and its use, total crop production (by type) within the 50-mile distance, the amounts consumed within a 50-mile radius of the facility; and transit time from the point at which the discharge stream enters an unrestricted area to the points of withdrawal, estimated dilution at each withdrawal point, and the bases for calculating transit times and dilution factors. |
| **HH-12** | Provide a knowledgeable expert to discuss the present and known future drinking water intake locations within 50 miles of the facility radwaste discharge (downstream and radius), the transit time and estimated dilution at each major location, the basis for calculating transit time and dilution, and the populations served and the daily water consumption at each location. |
| **HH-13** | Provide a knowledgeable expert to discuss the unusual animals, plants, agricultural practices, game harvests, or food processing operations having the potential to contribute 10% or more to either individual or population doses in areas affected by liquid effluents, and food-processing operations involving large quantities of water as identified in ESRP 5.4.1. |
| **HH-14** | Provide a knowledgeable expert to discuss the occupational dose estimates. |
| **HH-15** | Provide a knowledgeable expert to discuss whether there will be onsite out-of-plant storage of solid waste and if so, the exposure rates. |
| **HH-16** | Provide a knowledgeable expert to discuss how spent fuel will be stored and handled. |
| **HH-17** | Provide a knowledgeable expert to discuss the ongoing and planned radiological environmental monitoring program for Fermi 1, 2, and 3. |
| **HH-18** | Provide a knowledgeable expert to discuss waste systems, including seasonal variations of principal constituents of intake and receiving waters, and the concentration factor on a seasonal basis for evaporative cooling systems. |
| **HH-19** | Provide a knowledgeable expert to discuss ambient concentrations in the receiving water body of the chemicals and other materials contained in the waste discharges, as well as the receiving water body water quality criteria for domestic industrial, agricultural and recreational uses. |
| **HH-20** | Provide a knowledgeable expert to discuss non-radiological health issues, dust control, electric shock, thermophilic microorganisms, occupation injuries, and electric and magnetic fields. |
| **HH-21** | Provide a knowledgeable expert to discuss the decommissioning of Fermi 1. |
| **HH-22** | Provide a knowledgeable expert to discuss cumulative impacts of other past, present, and reasonably foreseeable future actions on human health in the region. |

## HYDROLOGY AND GEOLOGY (HY)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **HY-1** | Please provide a tour to show the following features of the Fermi site:<br>• Location of the cooling tower basin for Fermi 3.<br>• Location of the Condensate Storage Tank basin for Fermi 3.<br>• Water intake structure for Fermi 2.<br>• Blowdown discharge point in Lake Erie for Fermi 2.<br>• Locations of proposed stormwater outfalls for Fermi 3.<br>• Locations of stormwater outfalls for Fermi 2.<br>• Gauge station at the mouth of Swan Creek.<br>• Pond for dredge material.<br>• Wetlands, canals, streams, ponds, and other waterbodies on the Fermi site.<br>• Northern and southern lagoons.<br>• Proposed cooling water intake and discharge locations in Lake Erie.<br>• Quarry to provide fill stones for Fermi 3.<br>• Proposed location for waste soil pile from Fermi 3 excavation.<br>• Rocky barrier near the shore in front of Fermi 2. |
| **HY-2** | Provide a knowledgeable expert to discuss, using text and figures:<br>• Vertical and lateral extent of existing fill material in Fermi 1 and 2 areas.<br>• Vertical and lateral extent of proposed Fermi 3 area.<br>• Geologic profiles (preferably in NW/SE and NE/SW directions) across the general Fermi site. |
| **HY-3** | Provide a knowledgeable expert to discuss, using text and figures, the methods, materials, design and construction of:<br>• Dikes in the general Fermi site.<br>• Cooling pond of Fermi 2, existing dredge pond, and spoil pile from Fermi 2<br>• Proposed cooling pond of Fermi 3, and basin for Condensate Storage Tank for Fermi 3. |
| **HY-4** | Provide a knowledgeable expert to discuss:<br>• Karst development in SE Michigan.<br>• Presence of mineral and petroleum resources in the region of the Fermi site.<br>• Textural characteristics of the glacial overburden using boring logs. |
| **HY-5** | Provide a knowledgeable expert to discuss the currents of the western Lake Erie basin. |
| **HY-6** | Provide large-scale topographic maps of the Fermi site. |
| **HY-7** | Provide detailed bathymetric maps near the shore of Fermi site. |
| **HY-8** | Provide a knowledgeable expert to discuss and make available information on the location of the outfall in Lake Erie for Fermi 2. |

## HYDROLOGY AND GEOLOGY (Continued)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **HY-9** | Provide a knowledgeable expert to discuss and make available information on the source of fill material for Fermi 3. |
| **HY-10** | Provide a knowledgeable expert to discuss the assumptions used in slug tests and the calculations of the hydraulic conductivities of the overburden and dolomite bedrock (Bass Islands Group) aquifer. |
| **HY-11** | Provide a knowledgeable expert to discuss the assumptions, inputs, and boundary conditions used in the MODFLOW model for the proposed dewatering operation of Fermi 3. |
| **HY-12** | Provide a knowledgeable expert to discuss the impacts from obtaining water from Frenchtown Township for potable water and potential makeup water. |
| **HY-13** | Provide a knowledgeable expert to discuss and make available information on the disposal of spoil generated from the construction of Fermi 3 and BMPs applied to disposal. |
| **HY-14** | Provide a knowledgeable expert to discuss precipitation-driven runoff and sediment and erosion controls during construction and operation. |
| **HY-15** | Provide a knowledgeable expert to discuss the dredging operations near existing and future water intake sites. |
| **HY-16** | Provide a knowledgeable expert to discuss the impacts on the environment from mining operations and the transportation of fill material to Fermi 3. |
| **HY-17** | Provide a knowledgeable expert to discuss the method to be used to construct the discharge pipe for Fermi 3. |
| **HY-18** | Provide a knowledgeable expert to discuss and make available information on the types of grouts to be used in the construction of Fermi 3 and their leaching potential. |
| **HY-19** | Provide a knowledgeable expert to discuss and make available information on locations for vehicle washing during the construction of Fermi 3, and runoff control. |
| **HY-20** | Provide a knowledgeable expert to discuss and make available information on any dewatering operations in quarries that will provide fill materials for the construction of Fermi 3. |
| **HY-21** | Provide a knowledgeable expert to discuss the retention time of the western Lake Erie basin and its hydraulic connection with other parts of Lake Erie. |
| **HY-22** | Provide a knowledgeable expert to discuss the bathymetry and characteristics in the area of the Fermi 3 intake (e.g., screen width and stream velocity near intake) and discharge structures, and water velocities at multiple depths and locations near the discharge structure. |
| **HY-23** | Provide a knowledgeable expert to discuss historical shore erosion and deposition since the construction of Fermi site, using historical aerial photographs if available. |
| **HY-24** | Provide a knowledgeable expert to discuss thermal and chemical releases to Lake Erie, including CORMIX analyses (input and output data used for CORMIX and the application of CORMIX associated with the discharge structure), analyses of optional discharge of treated liquid radwaste, and dilution factors. |
| **HY-25** | Provide a knowledgeable expert to discuss the impacts from discharging sewer water to Frenchtown Township Sewage Treatment Facility. |
| **HY-26** | Provide a knowledgeable expert to describe the disposal of dewatering products, and its potential impact on wetlands and surface water. |

## HYDROLOGY AND GEOLOGY (Continued)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **HY-27** | Provide a knowledgeable expert to discuss, using model results, the impact of the dewatering operation on the makeup pond for Fermi 2. |
| **HY-28** | Provide a knowledgeable expert to discuss and make available the anticipated contents and impact mitigation of the Storm Water Pollution Prevention Plan (SWPPP) and the qualitative and/or quantitative analyses and assessments that form the basis for determining that the SWPPP would control runoff from the construction area. |
| **HY-29** | Provide a knowledgeable expert who can identify and discuss the actual NPDES, and U.S. Army Corps of Engineers (USACE), and other agencies' permits that must be secured for the construction and operation of Fermi 3. The may include, but are not necessarily limited to permits for: dredging, cooling tower blowdown, storm water runoff, optional radwaste releases, intake screen backwash, etc.<br>Please be prepared to:<br>• Identify the anticipated discharges or discharge limits, concentrations, and constituents covered by the permits.<br>• Discuss the qualitative and/or quantitative analyses and assessments that form the basis for the classification impact level associated with implementing each permit.<br>• Discuss the timeline and interdependencies between these permits and any other Federal permits.<br>• Discuss the role of Canadian regulatory agencies with respect to construction and operation of Fermi 3. |
| **HY-30** | Provide a knowledgeable expert to describe the leak detection systems and containments of radioactive waste tanks, spent fuel pool, and condensate storage tanks for potential releases and applicable mitigation measures. |
| **HY-31** | Provide groundwater monitoring data for Fermi 2 for the past 10 years or more. |
| **HY-32** | Provide a knowledgeable expert to describe the calculation of stream flow, ice jam conditions (if any), and flooding potential of Swan Creek and the hydraulic relationship between the creek and the wetlands on the Fermi site. |
| **HY-33** | Provide a knowledgeable expert to discuss monitoring plans and programs on surface water and groundwater monitoring during pre-construction, construction, post-construction and pre-operation, and operation phases of Fermi 3. |
| **HY-34** | Provide a knowledgeable expert who can discuss thermal monitoring for the planned thermal discharge outfall. |
| **HY-35** | Provide a knowledgeable expert to discuss cumulative impacts of other past, present, and reasonably foreseeable future actions on surface water, groundwater, and geological resources in the region. |
| **HY-36** | Provide a knowledgeable expert to discuss water-related screening and evaluation criteria for alternative sites. Please provide any site selection studies carried out for Fermi 3. Please also be prepared to discuss all hydrologic reconnaissance-level data used to assess the suitability of alternative sites. |

## LAND USE (LU)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **LU-1** | Provide a knowledgeable expert to discuss the following actions and to describe the subsequent impacts, local laws, and impact mitigation requirements.<br>• Timber harvesting and wetland impacts along the Lake Erie shoreline and other areas affected by project construction.<br>• Timber harvesting and other clearing activities in the proposed transmission line corridors.<br>• Road and park relocation activities.<br>• Any new wetlands that may be created. |
| **LU-2** | Provide a knowledgeable expert on land use of the site, transmission lines, access corridors, and ROWs. This expert should be able to address questions related to land use such as:<br>• Would projected access corridors for on-site construction and transmission lines, including ROWs, have any associated restrictions on development?<br>• Do proposed transmission line corridors cross land zoned for residential or recreational uses?<br>• Would proposed access to transmission or access corridors be limited due to maintenance or seasonal uses (e.g., agricultural)? |
| **LU-3** | Provide a knowledgeable expert to discuss data on land use within existing and proposed transmission corridors using the categories defined by the Natural Resource Conservation Service. Land use information should be subdivided into corridor segments having predominantly similar land use types. |
| **LU-4** | Provide a knowledgeable expert to discuss and make available data on transmission tower and substation locations. |
| **LU-5** | Provide a knowledgeable expert to discuss whether local roads or highways would need reconditioning to handle the expected increase in traffic and loads for onsite construction and construction of transmission lines. |
| **LU-6** | Provide a knowledgeable expert to discuss the disposition of spoil piles or borrow pits created during construction. |
| **LU-7** | Provide evidence of communication with relevant agencies showing how the planned construction and operation of Fermi 3 either complement or conflict with existing land use plans. |
| **LU-8** | Provide a knowledgeable expert to discuss the effects of the proposed land withdrawals from the Detroit River International Wildlife Refuge (DRIWR) or future management of the refuge. |
| **LU-9** | Provide a knowledgeable expert to discuss cumulative impacts of other past, present, and reasonably foreseeable future actions on land use in the region. |

## NEED FOR POWER (NP)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **NP-1** | Provide a knowledgeable expert on the Need for Power analysis for the DTE service area to:<br>• Explain how data from the Michigan 21st Century Energy Plan were used in the analysis and whether any corrections were made to account for the fact that the Energy Plan's study boundaries extend beyond DTE's service area.<br>• Provide the economic parameter data used in DTE's power projections; describe the time period over which automobile industry economic data used in the long range power demand forecast was generated; and define "Detroit index of coincident indicators."<br>• Identify and provide all of the data sources besides DTE's that were used by the DWG to produce the Southeastern Michigan forecast. |
| **NP-2** | Provide a knowledgeable expert who can explain the manner in which the relationships (interties) between the DTE service area and Midwest ISO Regional Reliability Area and PJM area and the Reliability First Service Areas influenced the Need for Power Analysis, and how forecasted transfers of power outside the DTE service area were established. |
| **NP-3** | Provide a knowledgeable expert who can address the manner in which the retirement schedules for DTE's fossil fuel generating plants would be affected by severe downturns in the industrial power demand within Southeast Michigan. |
| **NP-4** | Provide a knowledgeable expert who can discuss how the recently passed Michigan Renewable Portfolio Standard (RPS) (Renewable Electricity Standard) (10% renewable generation by 2015) (Act 295, approved and filed on October 6, 2008) impacts the Need for Power analysis. |
| **NP-5** | Provide a knowledgeable expert who can provide an expansion of discussions in ER Section 8.4.2.3; specifically, how the national policy on reduction of reliance on fossil fuels as well as policies listed below, adopted by the Michigan Climate Action Council (MCAC) through its Technical Working Group for Energy Supply, might impact the DTE portfolio and the ER's Need for Power analysis, and especially, the upgrade or retirement schedules of DTE's fossil fuel electric generation plants:<br>• Cap and Trade policy<br>• Carbon Tax policy.<br>(Note: the comprehensive report from MCAC, due by December 31, 2008, may provide additional data which, if incorporated into the Need for Power Analysis, might impact the analysis results.) |
| **NP-6** | Provide a knowledgeable expert who can discuss what meteorological data, over what time frame, are used to calculate the peak day average temperature and whether actual peak day loads are used to verify the appropriateness of the selected peak day temperature. |
| **NP-7** | Provide a knowledgeable expert who can discuss the percentage of the estimated savings in GWh from energy efficiency programs documented in the 21st Century Energy Plan that would be realized within the DTE service area. Other discussion topics include whether DTE's current or proposed demand side management programs would be sufficient to meet the projected reductions for the DTE service area. |

## NEED FOR POWER (Continued)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **NP-8** | ER Table 8.3-11 shows a reduction in collective generating capacity over the entire DTE portfolio of 1,628 MW through 2024 as a result of retirement of older generating units. Yet, Fermi 3 will provide only 1,600 MW of new capacity. Provide a knowledgeable expert who can explain the reason for this discrepancy and provide additional details on the following:<br>• Uprates planned for the remaining DTE generating plants to maintain DTE's current power capacity, and the plants involved in such uprates.<br>• Impacts on retirement schedules for older DTE fossil fuel plants from changes in power transfers into or out of the DTE service area.<br>• Adjustments to the DTE reserve margin used in its forecasting models to account for the age, condition, and reliability of its oldest fossil fuel generating stations.<br>• Explanation of the differences if any between DTE reserve margin and the statewide reserve margin of 15%.<br>• Whether a facility's age and reliability factors were used by the State in establishing the reserve margin used in its statewide forecasting. |
| **NP-9** | Provide a knowledgeable expert who can identify other factors besides age that will impact the schedule for fossil fuel generating plant retirements (e.g. RPS, GHG initiatives, changes to limits on criteria pollutant emissions, the feasibility of technical upgrades to effectively forestall their retirement, etc.). |
| **NP-10** | Provide a knowledgeable expert to provide additional details on the discussion contained in ER section 8.3.1.2 regarding forecasted generating capacity; specifically,<br>• Whether the renewable energy technology interconnection requests made to Midwest ISO (tables 8.3-8 and 8.3-9) are believed to be consistent with Michigan 21st Century Electric Energy Plan objectives regarding the role of renewable energy technologies or whether additional renewable energy interconnection requests can be reasonably anticipated in light of the adoption of the 21st Century Electric Energy Plan.<br>• The expected impact to the interconnection queue as a result of the passage of the Michigan Renewable Energy Portfolio Standard (RPS) (Act 295) on October 6, 2008.<br>• Whether renewable energy technologies and net metering programs facilitating the development of distributed systems were considered (as suggested in 8.3 of the ESRP). |
| **NP-11** | Provide a knowledgeable expert who can provide a detailed discussion on the DTE Integrated Resource Plan, and provide a copy of this plan. |

## SOCIOECONOMICS/ENVIRONMENTAL JUSTICE (SE)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **SE-1** | Provide copies of all correspondence and communications with Monroe County officials and citizens confirming that the areas near the Fermi site do not quality as low income or minority areas as stated on ER pp.1-3 and 4-87. |
| **SE-2** | Provide a knowledgeable expert to discuss population and demographic characteristics around the Fermi site for both permanent and transient populations, and housing. Discussion topics will include:<br>• Availability of updated census or other estimates for population, housing, etc.<br>• Outputs of all demographic analysis using LandView® 6 and MARPLOT for ER Sections 2.5, 4.4, and 5.8.<br>• Population data shown in segments of Figures 2.5-2 (S-SE 1-2 mi and S 2-3 mi, and 2.5-3 and 2.5-7(E-SE 30-40 mi) that appear not to have land masses.<br>• Population data on Native American populations within the 50-mile region (ER Section 2.5.4.2.1).<br>• Housing availability in relation to existing workforce and income levels, and periods of construction for different types of workers (temporary versus permanent housing). |
| **SE-3** | Provide a knowledgeable expert to discuss educational system, public and private recreational facilities, and social services and public facilities. This expert should be able to provide and discuss:<br>• Current or projected capacity or percentage of use for all infrastructure types.<br>• Capacity of the sanitary sewer system in Frenchtown Township.<br>• All correspondence and communications with officials to determine significance of impact. |
| **SE-4** | Provide a knowledgeable expert on the regional and local transportation network, including but not limited to the Level of Service (LOS) analysis (ER Section 2.5.2) and any updates to that analysis as identified in ER Section 4.4.2.4.2. This expert should be able to address transportation issues such as:<br>• Carrying capacity and condition of roads and highways.<br>• Information related to relevant transportation and traffic information (i.e., likely commuter or emergency evacuation routes) in Michigan and Ohio.<br>• Availability and types of public transportation.<br>• Proposed road modifications that may affect traffic flow to and from the Fermi site.<br>• Hourly present and future rates of worker flow through Fermi security gates. To include: existing plant operations workers and outage workers. Proposed new unit construction workers, proposed new unit service vehicle and truck deliveries, and proposed new unit operations workers (during and after construction phases). |
| **SE-5** | Provide a knowledgeable expert to discuss the settlement pattern of the existing workforce, the construction workforce, and assumptions related to housing, commutes, etc. |

## SOCIOECONOMICS/ENVIRONMENTAL JUSTICE (Continued)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **SE-6** | Provide a knowledgeable expert on the construction process. Discussion topics will include:<br>• Estimate of applicant's planned expenditures for supplies and materials within local area versus outside local area (ER Section 4.4.2), and between preconstruction and construction activities<br>• Construction workforce size estimates by month (ER Section 4.4.2).<br>• Estimates of property taxes by type and jurisdiction to be paid by the applicant annually during construction and operation (ER Section 5.8.2). |
| **SE-7** | Provide a knowledgeable expert that can identify current and future activities/projects (public and private) in the vicinity of the Fermi plant that may contribute to a cumulative impact on transportation (ESRP 5.11). Discussion topics will include how these activities may affect plant construction and/or operations to a degree that would support a SMALL, MODERATE, or LARGE impact designation. |
| **SE-8** | Provide a knowledgeable expert to discuss cumulative impacts of other past, present, and reasonably foreseeable future actions on socioeconomics and environmental justice in the region. |

## TERRESTRIAL ECOLOGY (TE)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **TE-1** | Please provide a tour of, and an opportunity to independently observe in the field:<br>• Typical wetland and upland habitat types on the Fermi site.<br>• Overview of project site in context of project component locations.<br>• Habitats adjacent to the Fermi site that could be affected by construction and operations of Fermi 3.<br>This tour can be combined with the Aquatic Ecology tour requested in Item No. AE-1. |
| **TE-2** | Provide a knowledgeable expert to discuss the status and findings of the confirmatory updated terrestrial ecological survey, as discussed in ER Section 2.4.1. Provide copy for review of a draft report if available. |
| **TE-3** | Provide a knowledgeable expert familiar with the Terrestrial Ecology Impacts Section (ER Section 5.3.3). The knowledgeable expert will need to address whether water withdrawals could adversely affect wetland and shoreline habitats during droughts. Same information request as HY-26. |
| **TE-4** | Provide copies of all correspondence with regulatory, natural heritage, and wildlife agencies, including but not necessarily limited to:<br>• U.S. Fish and Wildlife Service<br>• Michigan Department of Natural Resources<br>• Michigan Natural Features Inventory<br>• Ohio Department of Natural Resources. |
| **TE-5** | Provide a knowledgeable expert to discuss and make available a copy of the Wildlife Management Plan for the DTE Fermi property, prepared in 2000 by the DTE Fermi 2 Plant Wildlife Habitat Team in cooperation with the Wildlife Habitat Council. |
| **TE-6** | Provide a knowledgeable expert to discuss and make available a copy of:<br>• Wetlands Functions-Values Assessment, noted in paragraph 2 on page 2-336 of the ER.<br>• Wetland Delineation Report for Fermi 3 Site, prepared by Ducks Unlimited in 2008. |
| **TE-7** | Provide a knowledgeable expert to discuss and make available a copy of:<br>• Terrestrial Ecology Reconnaissance Surveys performed for proposed Fermi 3 Site between November 2006 and May 2008.<br>• Grid/Transect Survey of Terrestrial Habitats on proposed Fermi 3 Site (discussed in paragraph 3 on page 2-321 of the ER).<br>• Plant Species Surveys in 2005 and 2007 for Transmission Line Prairie Planting on Fermi Property (noted in Paragraph 1 on page 2-339 of the ER).<br>• Avian point surveys conducted on proposed Fermi 3 site between late 2006 and mid 2008 (discussed in paragraph 3 on page 2-327 of the ER).<br>• Map or sketch showing locations of bald aagle nests on Fermi property in 2008 (discussed in paragraph 2 on page 2-330 of the ER).<br>• Map or sketch showing locations where the eastern fox snake was observed on Fermi property in June 2008 (discussed in paragraph 1 on page 2-333 of the ER). |

## TERRESTRIAL ECOLOGY (Continued)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **TE-8** | Provide a knowledgeable expert to discuss:<br>• ITC Transmission's Vegetation Management Plan.<br>• Wildlife management practices currently implemented in the transmission line ROWs. |
| **TE-9** | Provide a knowledgeable expert to discuss cumulative impacts to terrestrial ecology in the region. |
| **TE-10** | Provide copies of the USACE jurisdictional determination, MDEQ wetland certification, and related documentation. |

## TRANSMISSION LINES (TL)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **TL-1** | See Aquatic and Terrestrial Ecology, Cultural Resources, and Land Use, topical areas for discipline specific transmission line needs. See comments AE-6, AE-13, TE-8, CR-11, LU-1, LU-2, LU-3, LU-4, and LU-5. |
| **TL-2** | Provide a tour that shows vegetation management practices in different habitats especially forest, wetlands, streams, or lakes. To expedite the tour, use areas with easy vehicular access (e.g., existing road crossings) to the extent possible. If possible, provide a tour of an area where cultural resources were protected during ROW construction and maintenance. |
| **TL-3** | Provide a knowledgeable expert to discuss the transmission line routing process. Provide supporting documents for siting decisions if available. |
| **TL-4** | Provide a knowledgeable expert who can discuss:<br>• The DTE/NAWCA transmission line ROW prairie planting that was surveyed for plant species occurrences in 2005 and 2007 (p. 2-339 of ER).<br>• ITC Transmission's vegetation management plan (p. 5-133 of ER). Also provide a copy of this plan. |
| **TL-5** | Provide a knowledgeable expert to provide a copy of and discuss the transmission line siting study report, if any. If no such report is available, then be prepared to discuss the relevant issues associated with the transmission line siting. |

## TRANSPORTATION (TR)

| ITEM NO. | INFORMATION NEED |
|---|---|
| **TR-1** | Provide a knowledgeable expert who can discuss the following topics:<br>• The major types and quantities of construction materials required to construct the proposed 1600 MWe reactor and the impacts related to transporting these construction materials.<br>• The estimated current average distance traveled to work by Fermi 2 employees or an estimate, with a supporting line of reasoning, of the average distance to work that might be traveled by Fermi 3 construction and/or operations personnel and the impacts related to transporting these personnel to the site. |
| **TR-2** | Provide a knowledgeable expert that can provide data and discuss the following topics:<br>• The relationship between the population densities along the Fermi route and the Grand Gulf route with respect to the Grand Gulf transportation analysis being bounding for the Fermi site.<br>• The relationship between the highway route distance from the Grand Gulf reactor site to Yucca Mountain and the Fermi/Yucca Mountain route with respect to the Grand Gulf transportation analysis being bounding for the Fermi site. |
| **TR-3** | Please provide a knowledgeable expert that can make available and discuss the following information:<br>• The analysis for the estimation of the heat load expected in a spent fuel shipping cask for comparison with that in 10 CFR 51.52 Table S-4 (250,000 Btu/hr).<br>• Compliance of irradiated fuel and other waste shipments with 10 CFR 51.52 Table S-4 with respect to shipment weight limits (73,000 lbs per truck).<br>• Estimates of the number of annual shipments of irradiated fuel and waste for comparison with the truck traffic density of less than 1 per day in 10 CFR 51.52 Table S-4. Provide the calculations performed to estimate the value of 165 truck shipments per year for unirradiated fuel for the ESPWR reactor (Section 3.8.1 of the ER).<br>• Provide supporting documentation that shows the radionuclide inventory (NUREG-1817, Table H-11) used in the transportation accident risk calculations (as referenced in Section 3.8.2.5 of the ER) to be representative of an irradiated fuel average burnup of 46,000 MWd/MTU. Provide documentation that the crud-related concerns (NUREG-1817, Section H.2.2.2) are not applicable to the referenced radionuclide inventory for use in the Fermi 3 EIS. |
| **TR-4** | Provide a knowledgeable expert to discuss how the non-radiological transportation impacts for Fermi 3 compare with Table S 4 in 10 CFR 51.52 (i.e., non-radiological accidents result in one fatal injury per 100 reactor years, 1 non-fatal injury in 10 reactor years, and $475 in property damage per year). Discussion topics will include the assumptions on the number of shipments of each type, external dose rates, and shipment distances. |