

US Army Corps of Engineers

**Detroit District** 

Applicant: Detroit Edison (Peter W. Smith)

In Reply Refer To: Corps File No. LRE-2008-00443-1-S11

**Date:** December 23, 2011 **Expires**: January 21, 2012

# <u>Proposed Structures and Dredge and Fill Activities associated with the Proposed Enrico</u> <u>Fermi Unit 3 Nuclear Power Plant in Lake Erie and/or adjacent wetlands at Frenchtown</u> <u>Charter Township, Monroe County, Michigan</u>

Applicant: Detroit Edison Company, One Energy Plaza 337 WCB, Detroit, MI 48226

**Public Notice** 

**Project Location:** The site is located approximately 30 miles southwest of Detroit, Michigan, at 6400 North Dixie Highway, within the boundaries of the Detroit Edison site containing the Enrico Fermi Unit 2 (Fermi 2) nuclear power plant.

**Federal Authority:** The applicant has applied for a Department of the Army permit under Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.

**State Authority:** Section 401 of the Clean Water Act requires that all discharges of dredged or fill material must be certified by the State as complying with applicable effluent limitations and water quality standards. Coastal Zone Management Certification (or waiver thereof) is required from the State of Michigan if this proposed activity would occur within the designated coastal zone.

**Project Description:** The applicant proposes, in accordance with the attached plans, to perform site preparation activities and construct support facilities associated with the proposed Enrico Fermi Unit 3 (Fermi 3) nuclear power plant (NPP). The overall project purpose is to provide baseload electrical generating capacity to address future peak electric demand in the Detroit Edison service area.

The U.S. Nuclear Regulatory Commission (NRC) is the lead Federal agency in the preparation of an Environmental Impact Statement (EIS) for construction and operation of the proposed Fermi 3 nuclear power plant and ancillary facilities. The U.S. Army Corps of Engineers (Corps), Detroit District is a cooperating agency on the Draft EIS (DEIS).

The environmental impacts of activities in Waters of the U.S., including jurisdictional wetlands, have been reviewed by the Corps and addressed in the DEIS. The NRC recently completed the "Draft Environmental Impact Statement (DEIS) for the Combined License (COL) for Enrico Fermi Unit 3" (NUREG-2105, Volumes 1, 2) and is currently accepting comments on the DEIS through January 11, 2012. The attached *NRC Information Sheet on the Enrico Fermi Unit 3* 

*Combined Operating Licenses Environmental Review* contains DEIS access and public comment submittal information.

As shown on the attached plans, the following activities associated with the proposed Fermi 3 NPP project subject to the jurisdiction of the U.S. Army Corps of Engineers and requiring a permit are:

**Cooling Tower Discharge Pipe:** The discharge pipe from the cooling tower basin would be buried and enter Lake Erie at the shoreline below the water surface. Beginning at this entry point, a 1340-foot x 17-foot wide (top width) x 6-foot deep (22800 square feet) trench would be dredged, using mechanical and hydraulic methods, and the 3300 cubic yards (CY) of dredged material would be temporarily sidecast. All but the most waterward 240 linear feet (LF) of the proposed discharge pipe footprint area is routinely dredged for maintenance of the currently existing Fermi 2 water intake structure.

A 48-inch diameter pipe would be placed into the trench and approximately 970 CY of the dredged material would be reused as trench fill. Approximately 1700 CY of riprap would be discharged in a two-foot layer over the filled trench. The invert elevation of the discharge end of the pipe would be 558 feet IGLD 85. The riprap top elevation would approximate the pre-project lake bottom elevation. The pipe would discharge through a multiport diffuser that would extend approximately 1-1/2 feet above the lake bottom, and would have an approximate top elevation 2.5 to 3 feet below the Low Water Datum (LWD) elevation of 569.2 feet IGLD 1985.

**Temporary Cofferdam**: Approximately 1100 CY of fill would be discharged to construct 280 LF of temporary cofferdam that would be located approximately 30 feet waterward of the existing shoreline and span the width between the existing intake structure groins. The area between the shoreline and cofferdam would be dewatered for excavation and construction of the new intake structure.

Water Intake Structure (Facility 26) & Shore Protection Existing shore protection would be removed and, using mechanical or hydraulic methods, approximately 17000 CY of material would be dredged from a 160-foot x 80-foot wide shoreline stretch for the intake structure foundation. After dredging, the intake structure and associated trash racks would be installed and approximately 5600 CY of backfill would be discharged. Approximately 220 LF of sheet pile shore protection would be installed extending north and south from the intake structure at or landward of the OHWM (573.4 feet IGLD) plane elevation. After the work is complete, the temporary cofferdam would be removed, allowing the area to flood and submerge the water intake.

**Barge Unloading Facility (Facility 33)**: To facilitate the receipt of equipment and materials for the construction of the plant, a barge slip would be constructed adjacent to the southernmost groin. Construction would include the installation of 320 LF of sheet piling parallel to a portion

of the groin. This sheet piling would intersect with the sheet piling shore protection that would extend south from the intake structure. The area between the groins is currently maintained to a depth of 9.2 feet below the LWD elevation of 569.2 feet IGLD 1985. No additional dredging is proposed to support barge deliveries.

**Fish Return**: A fish return system would be installed as part of the water intake design. To construct the fish return outfall, approximately 95 CY would be mechanically dredged and a 24-inch diameter pipe would be installed in the 10-foot wide x 120-foot long dredged trench. The pipe would be installed one-foot below the existing lake bottom and would emerge from the bottom approximately 120 feet south of the south groin. Approximately 40 CY of the dredged material would be reused as trench fill and the excess would be sidecast. Approximately 40 CY of riprap would be discharged in a two-foot layer over the filled trench. The riprap top elevation would approximate the pre-project lake bottom elevation. The pipe invert elevation would be 572 feet IGLD.

**Wetlands:** Approximately 29 acres of wetlands, regulated by the Corps of Engineers in the State of Michigan, would be impacted by the proposed activities. The acreages described below are approximate:

9 acres would be permanently filled, including 7 acres of emergent and 2 acres of forested wetlands, for facility construction including warehouse, portal-vehicle inspection point, parking garage, transmission towers, security gatehouse, culvert trench fill, culverts, check dams, and operations access road.

1 acre (900 LF) of emergent wetland would be permanently enclosed by two, 24-inch by 6-foot arched culverts to provide construction/maintenance access to the proposed cooling tower.

3 acres of forested wetlands within the proposed on-site transmission line corridor would be mechanically cleared in the course of converting to scrub shrub or emergent wetland type.

15 acres would be temporarily affected by proposed mechanized land clearing and grading for laydown and stockpiling activities including 9 acres of emergent, 4 acres of scrub shrub and 2 acres of forested wetlands.

1 acre of emergent wetlands would be temporarily used to access, over bog mats, the transmission tower construction area.

# **Other Activities:**

Eight transmission towers would be constructed in wetlands located within Lake Erie.

45 LF of sheet piling would be installed to contain the proposed warehouse fill

On the north side of the warehouse fill site, a 24-foot wide by 6-foot tall by 50-foot long box culvert would be installed to maintain a connection to the lake proper via existing culverts. Four, 60-inch diameter pipe culverts, 200 LF in length, would be installed to connect the existing wetland culvert to the new box culvert to maintain a hydrologic connection to the wetland complex west of the proposed warehouse site. Four, 24-inch diameter pipe culverts, approximately 1600 LF in length, would be installed within the proposed warehouse footprint to carry stormwater flow from the existing and proposed facilities to the lake proper via connection to the new 60-inch culverts.

The operations access road and gate building would include the installation of a 50-foot long, 22foot x 7-foot box culvert to replace an existing bridge. An approximate total of 20 CY of riprap would be discharged along the wingwalls of the new culvert for toe protection. In addition, four, 12-inch equalization culverts would be installed at intervals, through the roadbed north of the operations access road box culvert location. The roadside swales adjacent to the improved road would include check dams.

The use of turbidity containment measures are proposed during dredging and fill discharge activities.

Excess dredged material, included sidecast material not used for trench or backfill would be retained on-site, in uplands or authorized fill discharge site(s), except for the remaining sidecast material associated with the fish return trench dredging.

For the 15 acres of on-site wetlands that would be temporarily impacted by mechanized land clearing and filling activities, the applicant proposes: to strip and stockpile the topsoil prior to any work; on completion of work, remove fill and use the previously stockpiled topsoil to return the areas to preconstruction contours and elevations; conduct aeration as necessary; and seed and/or plant with native trees, shrubs, and herbaceous plants similar to those present before construction.

The applicant is also proposing off-site mitigation activities that require Corps authorization; see below.

Avoidance & Minimization: The applicant has stated the following concerning avoidance and minimization to Waters of the United States:

The applicant conducted an on-site alternative analysis to determine a site layout that would most practicably avoid and minimize impacts to jurisdictional waters and wetlands. Efforts were made to avoid, to the extent possible, the long and short-term adverse impacts associated with the destruction or modification of jurisdictional waters and wetlands and to avoid direct or indirect support of new construction in wetlands and waters wherever there was a practicable alternative. Siting was limited by design constraints, which allowed integration within the existing Fermi 2 facility boundaries, including exclusion zones.

The applicant's proposed on-site alternatives analysis and proposed least environmentally damaging practicable alternative can be found in appendix J of the referenced DEIS.

The Corps has not verified the adequacy of the applicant's avoidance and minimization statement at this time.

**Compensatory Mitigation:** The applicant has stated the following concerning compensatory mitigation for unavoidable impacts to Waters of the United States:

For the 1 acre of emergent wetland that would be used for access to the transmission line work site, no mitigation is proposed as all work would be temporary and conducted on bog mats.

To compensate for temporal functional losses attributable to the 15-acre temporary wetland impacts, the permanent functional losses attributable to the 9 acres (7 emergent, 2 forested) of permanent wetland impacts, and the permanent partial loss of functions attributable to permanently culverting and enclosing the 1- acre emergent wetlands South Canal site, approximately 107 acres of wetlands, including 68 acres of emergent wetlands, 8 acres of scrub shrub wetlands, and 24 acres of forested wetlands that have been modified by agricultural practices and hydrological disturbances (tiling, diking, ditching, etc.) would be reestablished and rehabilitated at an off-site coastal area . The proposed compensatory mitigation area is a 1260-acre site located along the shore of Lake Erie just north of La Plaisance Creek and west of La Plaisance Bay, and approximately 7-1/2 miles southeast of the proposed Fermi 3 NPP site.

Regulated activities associated with the mitigation work would include dredging, mechanized land clearing, grading, removing/breaking drain tiles, eliminating the pumping of water off-site, dike breaching, drain diversion, planting, seeding, water control structure installation, structural invasive species control measures, and the installation of fish and wildlife habitat structures.

The applicant also proposes to place the mitigation site in a conservation easement with the State of Michigan.

Besides installation of structural invasive species control measures, as applicable, the applicant also proposes long-term control and management of invasive species. This would be conducted by the operation and maintenance of any installed structures and the application of a variety of currently acceptable (in scientific community) invasive species control measures depending on the target species. The applicant also proposes to periodically evaluate invasive species control measures used at the site, as well as acceptable invasive species control measures, and adapt such measures to meet evolving site conditions.

The applicant's proposed conceptual aquatic resource mitigation strategy can be found in appendix K of the referenced DEIS.

The Corps has not verified the adequacy of this mitigation proposal at this time.

**Other Authorizations Required:** A permit from the Michigan Department of Environmental Quality under applicable provisions of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451. The State file number is 10-58-0011.

The referenced DEIS contains a complete listing of Federal, interstate, State or local agency authorizations required for the proposed Fermi 3 NPP project and their status.

**Comments:** We are publishing this notice in compliance with Title 33 Code of Federal Regulations Parts 320-332. Comments on this notice should be submitted in writing and postmarked or delivered by the expiration date of this public notice. Comments of a positive or negative nature may be submitted. All responses must refer to Corps of Engineers file number LRE-2008-00443-1-S11. We will interpret a lack of response as meaning that there is no objection to the permit application. Comments may be mailed or e-mailed, as shown below, but must include a name and mailing address:

Mail: Wally Gauthier, Chief, Permit Evaluation Eastern Branch, Regulatory Office, US Army Corps of Engineers-Detroit District, 477 Michigan Avenue, Detroit, MI 48226-2550

E-mail: Colette.M.Luff@usace.army.mil

**Public Hearing:** Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

**Evaluation:** The decision whether to issue the Department of the Army permit will be based on evaluation of the probable impact of the proposed activity on the public interest. This decision will reflect the national concerns for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The Corps permit decision would be made following issuance of the NRC's Final EIS for the Combined License for Enrico Fermi Unit 3.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this

proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

The proposed Fermi 3 and compensatory mitigation activities involve the discharge of dredged or fill material into waters of the United States. Therefore, the U.S. Army Corps of Engineers' evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator of the Federal Environmental Protection Agency, under the authority of Section 404(b)(1) of the Clean Water Act.

**Endangered Species:** We have conducted a preliminary review of this application for potential impacts on threatened or endangered (T/E) species pursuant to Section 7 of the Endangered Species Act (ESA), as amended.

We have also reviewed the studies relevant to this resource that were conducted by the applicant within the Fermi 3 NPP project area, which contains the Corps permit area, as part of the NRC's combined license application process for the proposed Fermi 3 NPP project. The referenced Fermi 3 NPP DEIS contains a detailed discussion of the potential impacts on this resource at the proposed Fermi 3 NPP site.

The following Federally listed T/E species are known to or believed to occur in Monroe County in which the proposed Fermi 3 site and proposed compensatory mitigation site are located: Indiana bat, Eastern massasauga rattlesnake, Karner blue butterfly, Mitchell's satyr, American burying beetle, Eastern prairie fringed orchid, Northern riffleshell [mussel], Rayed bean [mussel] and Snuffbox mussel.

As the lead Federal agency for the proposed Fermi 3 NPP project, the NRC has initiated formal consultation, with the Corps participating as a cooperating agency, with the U.S. Fish & Wildlife Service pursuant to Section 7 of the ESA, for the proposed Fermi 3 NPP project. Consultation is ongoing.

The Corps preliminary review of this application indicates that proposed regulated activities to be conducted within the Corps Fermi 3 permit area and the off-site compensatory mitigation permit area, would not affect these Federally-listed T/E species or critical habitat.

We invite information and/or comments regarding the potential presence of, or impacts to, any listed species or critical habitat relative to the Corps regulated activities/sites associated with the proposed Fermi 3 NPP project, including the proposed compensatory mitigation site/activities.

**Cultural Resources:** The Corps District staff has reviewed the latest published National Register of Historic Places (NRHP) and no listed sites were found within the Corps permit area for the proposed Fermi 3 regulated activities or the off-site, proposed mitigation activities.

Corps staff also reviewed the historic property studies that were conducted by the applicant within the Fermi 3 NPP project area, which contains the Corps permit area, as part of the NRC's COL application process for the proposed Fermi 3 NPP project. The referenced Fermi 3 NPP DEIS contains a detailed discussion of the potential impacts on this resource at the proposed Fermi 3 NPP site.

As the lead Federal agency for the proposed Fermi 3 NPP project, the NRC has initiated consultation, with the Corps participating as a cooperating agency, with the Michigan State Historic Preservation Office (SHPO) and consulting parties, pursuant to Section 106 of the National Historic Preservation Act, for the proposed Fermi 3 NPP project. Consultation is ongoing.

Corps staff also reviewed a preliminary historic property study conducted by the applicant for the proposed mitigation site.

The Corps preliminary review of this application indicates that proposed regulated activities to be conducted within the Corps Fermi 3 permit area and the off-site compensatory mitigation site permit area would not affect any NRHP-listed properties or properties eligible for NRHP listing.

The District Engineer invites responses to this Public Notice from Federal, State and local agencies, historical and archaeological societies, Indian tribes, and other parties likely to have knowledge of or concerns with historic properties in the area.

Additional Information: This public notice and drawings are also available for viewing/printing at: <u>http://www.lre.usace.army.mil/functions/rf/html/pncur.htm</u>. Questions concerning this application may be directed to Colette Luff at the Corps of Engineers address listed above, or telephone number 313-226-7485.

FOR THE DISTRICT ENGINEER:

Wally Gauthier Chief, Permit Evaluation Eastern Branch Regulatory Office

#### NOTICE TO POSTMASTERS:

We request that the above notice be conspicuously and continuously posted for the time period of this notice