The Detroit Edison Company
One Energy Plaza, Detroit, MI 48226-1279

10 CFR 51.45
10 CFR 52.77

February 15, 2010
NRC3-10-0005

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

References:
1) Fermi 3
Docket No.: 52-033
2) Letter from Bruce Olson (USNRC) to Peter W. Smith (Detroit Edison), "Requests for Additional Information Letter No. 2 Related to the Environmental Review for the Combined License Application for Fermi Nuclear Power Plant, Unit 3," dated November 6, 2009
3) Letter from Peter W. Smith (Detroit Edison) to USNRC, "Detroit Edison Company Response to NRC Requests for Additional Information Related to the Environmental Review," NRC3-09-0012 dated July 31, 2009
4) Letter from Peter W. Smith (Detroit Edison) to USNRC, "Detroit Edison Company Response to NRC Requests for Additional Information Related to the Environmental Review," NRC3-09-0014 dated September 30, 2009
5) Letter from Peter W. Smith (Detroit Edison) to USNRC, "Detroit Edison Company Response to NRC Requests for Additional Information Related to the Environmental Review," NRC3-09-0015 dated October 30, 2009
6) Letter from Peter W. Smith (Detroit Edison) to USNRC, "Detroit Edison Company Response to NRC Requests for Additional Information Related to the Environmental Review," NRC3-09-0016 dated November 23, 2009
7) Letter from Peter W. Smith (Detroit Edison) to USNRC, "Detroit Edison Company Response to NRC Requests for Additional Information Letter No. 2 Related to the Environmental Review," NRC3-10-0004 dated January 29, 2010

D095
NRO

Attachment 7
NRC3-10-0005

Response to RAI letter related to Fermi 3 ER

RAI Question TE2.4.1-12
RAI Question TE2.4.1-13
RAI Question TE4.3.1-8
RAI Question TE4.3.1-9

NRC RAIs

The following RAIs involve the eastern fox snake and are interrelated. Accordingly, Detroit Edison has elected to address these RAIs with a single response.

A. TE2.4.1-12

Provide up-to-date and complete data on the locations and dates of sightings of the eastern fox snake (Pantherophis gloydi) on the proposed Fermi 3 site, including any sightings by Detroit Edison staff or others in the last 10 years.

Information about the numbers and locations of sightings of the eastern fox snake in recent years would facilitate evaluation of the nature of this snake's population on the project site. In a phone conversation with Ecology and Environment, the Michigan Department of Natural Resources (MDNR) indicated that its records of a viable population of eastern fox snakes on the Fermi property come at least in part from reports by Detroit Edison personnel.

Detroit Edison should investigate its own records as well as coordinate with MDNR to determine the extent of recent and historical sightings data and to provide a basis for determining potential impacts to the eastern fox snake.

B. TE2.4.1-13

Provide a delineation of potential eastern fox snake habitat within the proposed Fermi 3 site.

Provide information, including a map, describing the location of the revised project footprint with respect to potential eastern fox snake habitat.

While the ER provided a general description of potential eastern fox snake habitat, a more complete analysis of the Fermi 3 site with respect to its potential to provide habitat for this snake and a graphical representation of where the revised project footprint would overlap potential eastern fox snake habitat would provide a more complete basis for assessing impacts to this snake.

C. TE4.3.1-8

Provide an assessment of the potential impacts of the proposed Fermi 3 project on eastern fox snakes and potential eastern fox snake habitat.

Additional detail beyond the information provided in the ER in Section 4.3.2.1 is needed to adequately assess potential impacts on the eastern fox snake.

D. TE4.3.1-9

Provide a discussion of measures Detroit Edison is considering to mitigate potential impacts to the eastern fox snake and its habitat.

Detroit Edison should also provide complete documentation of any discussions or correspondence to date with the MDNR Natural Heritage Program related to the project's impact on the eastern fox snake and measures Detroit Edison would consider for mitigating impacts to this snake.

This RAI is a request to Detroit Edison to document its consideration of mitigation measures to minimize impacts on the eastern fox snake. Detroit Edison has been working with the MDNR to mitigate impacts to this snake, and documentation of those discussions is needed.

Response

A. TE2.4.1-12

Provide up-to-date and complete data on the locations and dates of sightings of the eastern fox snake (Pantherophis gloydi) on the proposed Fermi 3 site, including any sightings by Detroit Edison staff or others in the last 10 years.

A map indicating where known observations of eastern fox snakes have occurred is provided as Enclosure 1 to this response. The sightings which are indicated as having been made by Detroit Edison employees (represented by stars on the map) were made from 1990 to 2007. Two sighting made by Ducks Unlimited (represented by triangles on the map) were made during a site wetland survey conducted in 2008.

At the locations where fox snakes were sighted by Detroit Edison employees, from 1-6 snakes have been observed per occasion. In addition, multiple sightings were made at each location over the course of the 1990-2007 period of time.

B. TE2.4.1-13

Provide a delineation of potential eastern fox snake habitat within the proposed Fermi 3 site.

Provide information, including a map, describing the location of the revised project footprint with respect to potential eastern fox snake habitat.

As demonstrated on the map provided in the response to part A of this letter, eastern fox snakes have been observed in numerous locations including those that are developed and currently in use for Fermi 2 operations. Due to the observed wide distribution, all undeveloped areas on the site are considered to provide habitat for the species. While eastern fox snakes have been observed at numerous developed locations, these sites do not possess habitat (food, cover, or water) for the snakes. It is believed that the snakes observed at these locations were migrating from areas possessing habitat or using the paved and gravel surface as a means of increasing their body temperature.

The construction of the Fermi 3 power plant will impact a portion of the site's undeveloped areas resulting in an impact to eastern fox snake habitat. A revised Environmental Report (ER) Figure 2.1-4 was provided in response to RAI GE3.1-1 in Detroit Edison letter NRC3-09-0017 (ML093650121), dated December 23, 2009. This figure provided a map of the areas, including undeveloped areas, which will be impacted as a result of the construction of Fermi 3. A review of site layout changes being implemented by Detroit Edison will clearly show that environmental impacts to the undeveloped areas of the site have been significantly minimized, particularly to preferred habitat for the eastern fox snake, such as wetlands. The revised layout has decreased the impact to undeveloped areas, which are suitable as fox snake habitat, by 117 acres.

C. TE4.3.1-8

Provide an assessment of the potential impacts of the proposed Fermi 3 project on eastern fox snakes and potential eastern fox snake habitat.

All impacts to the eastern fox snake will be minimized through mitigation efforts. Plans for mitigation are provided in the response to RAI TE4.3.1-9 below.

Based on observations, it is believed that eastern fox snakes are widely distributed throughout the Fermi site. During the course of construction activities it may be possible to find eastern fox snakes in developed areas migrating from one area of habitat to another or utilized paved and rocky surfaces to raise their body temperature.

All undeveloped areas of the site are considered to provide habitat for the eastern fox snake. As a result, disturbances in these areas will have the potential to impact the snakes directly or affect their habitat. The revised ER Figure 2.1-4 mentioned in part B shows the undeveloped areas which will be impacted. Referencing this figure, the major impacts will be: EF3 Parking (~36 acres), Construction Laydown (~35 acres), and Fox Road Construction Layout (~24 acres). All three of these areas will be temporary impacts; following completion of the project they will be restored to a condition of equivalent or better ecological value. In addition, lesser impacts will occur at the location of the new meteorological tower located at the southern end of the property, the site of the Fermi 3 cooling tower (point 23) where invasive vegetation covers spoil piles from previous work, and the structures at points 32, 34 and 37 where the structures will infringe on undeveloped areas.

A review of site layout changes being implemented by Detroit Edison will clearly show that environmental impacts to the undeveloped areas of the site have been significantly minimized, particularly to preferred habitat for the eastern fox snake, such as wetlands. The revised layout has decreased the impact to undeveloped areas, which are suitable as fox snake habitat, by 117 acres.

D. TE4.3.1-9

Provide a discussion of measures Detroit Edison is considering to mitigate potential impacts to the eastern fox snake and its habitat.

Detroit Edison should also provide complete documentation of any discussions or correspondence to date with the MDNR Natural Heritage Program related to the project's impact on the eastern fox snake and measures Detroit Edison would consider for mitigating impacts to this snake.

The strategy for reducing Fermi 3 construction impacts to the eastern fox snake included modifications to the site layout. These modifications significantly reduced the amount of undeveloped area which will be impacted. The reduction in impact can be seen by comparing ER Figure 2.1-4 in Revision 0 of the ER to the revised figure discussed in the response to TE2.4.1-13 above which shows the current layout plan. Modifications to the layout have decreased the impact to undeveloped areas by 117 acres.

As a means of further reducing impacts to the eastern fox snake population, a mitigation plan will be finalized prior to construction and implemented to minimize impacts to the resident population. The draft of this plan is provided in Enclosure 2 to this response.

Documentation of discussions with the MDNR is provided in Enclosure 3 to this response. The following discussions are documented and provided:

Summary of discussion with the MDNR on the Fermi 3 impact on fox snakes held on April 14, 2009.

A letter from Lori G. Sargent (Michigan Department of Natural Resources) to Gregory P. Hatchett (US NRC) dated February 9, 2009 discussing eastern fox snakes at the Fermi site.

A letter from Lori G. Sargent (Michigan Department of Natural Resources) to Ralph E. Brooks (Black and Veatch Corporation) dated November 28, 2007 RE: Proposed new nuclear power electrical generating facility at Consumers Power Enrico Fermi Facility; B&V Project 147483

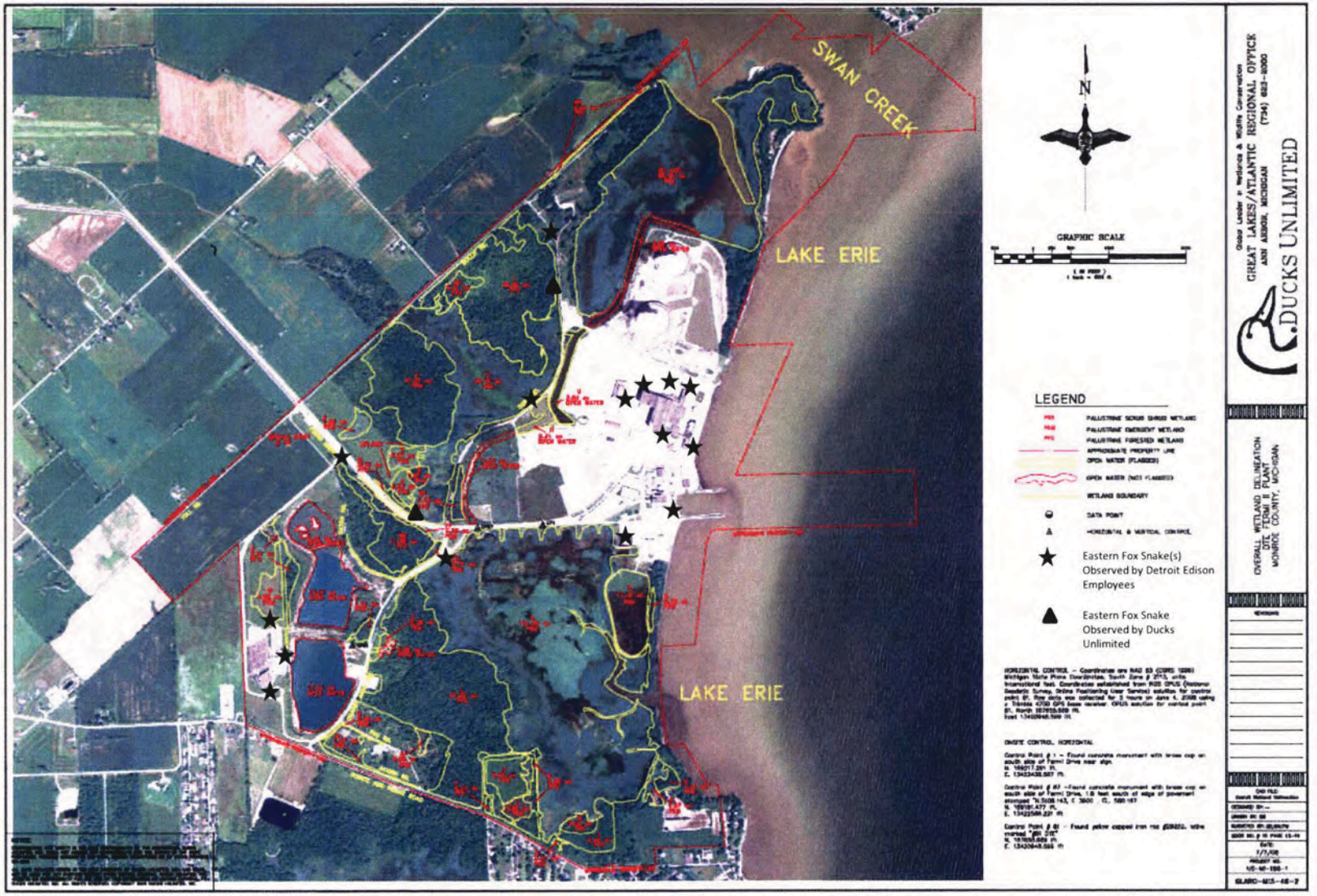
Proposed COLA Revision

None

Attachment 7
NRC3-10-0005

Enclosure 1

Eastern Fox Snake Sightings Map
(following 1 page)



Attachment 7
NRC3-10-0005

Enclosure 2

Habitat and Species Conservation Plan
(following 12 pages)

Detroit Edison

Fermi 3

Habitat and Species Conservation Plan Eastern Fox Snake (*Elaphe gloydi*)

Table of Contents

Executive Summary

The eastern fox snake (*Elaphe gloydi*) is a threatened species in Michigan with four known isolated populations remaining in Southeastern Michigan. Two of these populations occur in Monroe County along the shores of Lake Erie (Reference 8.1). It is known that Detroit Edison's Fermi property has a population of fox snakes. Detroit Edison currently operates one nuclear generating unit on this property and is considering building an additional unit, Fermi 3. The construction of Fermi 3 has the potential to impact the existing fox snake population and its habitat. The site's personnel have an elevated awareness of wildlife habitat and associated wildlife populations as a result of the site's Wildlife Habitat Certification (certified by the Wildlife Habitat Council), functional ISO 14001 certified Environmental Management System and a cooperative agreement with the US Fish and Wildlife Service to manage on-site habitats as part of the Detroit River International Wildlife Refuge. It is the intent of this document to describe measures to be implemented in order to create further employee awareness and decrease impacts on the population of eastern fox snakes and their habitat caused by Fermi 3 construction activities.

1.0 Introduction and Background

1.1 Overview

The construction of Detroit Edison's Fermi 3 Power Plant will involve a significant amount of heavy construction activity. During the course of these construction activities awareness about wildlife and its habitat will need to be discussed during pre-job briefings to help assure that impacts are minimized. The development of an environmental check-list will assist in making construction personnel aware that some activities and the locations in which they are performed may have impacts on wildlife in general and the eastern fox snake in particular. The use of "fox snake" and "snake" refer to the eastern fox snake in this document. Additionally, communicating the behavior, appearance and preferred habitat of the fox snake will promote greater awareness. Undeveloped areas to be impacted will be surveyed by a team of trained personnel to help remove snakes prior to construction activities.

1.2 Regulatory/Legal Framework

The Federal *Endangered Species Act of 1973* (ESA 1973), and the State of Michigan's *Natural Resources and Environmental Protection Act (NREPA), Act 451 of 1994 PART 365* require all parties to include endangered and threatened species protection within project planning. This requires projects to be reviewed by State and/or Federal agencies. This review determines if the project requires an *incidental take permit*, as outlined in ESA 1973. With the application for an incidental take permit a *Habitat Conservation Plan* (HCP) needs to be authored to demonstrate to the agencies that there is a plan in place that reduces the impact on endangered and threatened species. The eastern fox snake is not federal listed species but is listed by the state of Michigan as threatened.

1.3 Plan Area

This plan will cover activities occurring on the Fermi power plant site related directly to the construction of the Fermi 3 power plant. Areas utilized by the eastern fox snake throughout its life cycle include shorelines, wetlands and adjacent uplands which are critical habitat for the fox snake (Reference 8.2). These habitats occur throughout the Fermi Power Plant property and the wetlands are outlined in Fig. 1 in the Appendix. The Michigan Department of Natural Resources and Environment (MDNRE) maintains an *Endangered Species Assessment* website (Reference 8.3) for the specific purpose of project planning. This website is used to obtain a course overview for project planning and users can get an immediate idea if further review by the MDNRE is required for projects. The Fermi Power Plant property is entirely contained within a high priority area for endangered and threatened species as displayed on the MDNRE's map of areas with unique natural features (Reference 8.4).

2.0 *Environmental Setting/Biological Resources*

2.1 *Environmental Setting*

The Fermi site is on the west shore of Lake Erie at the mouth of Swan Creek, approximately 24 miles northeast of Toledo, Ohio and 30 miles southwest of Detroit, Michigan. The Fermi 3 power plant will be located on the current Fermi site in Frenchtown Township; Monroe County, Michigan at the following coordinates:

Latitude	Longitude
41° 57' 39" North	83° 15' 43" West

Zone 17T UTM (NAD83) Coordinates	
4,647,902 m Northing	312,551 m Easting

The U.S./Canada international border runs through Lake Erie about seven miles east of the Fermi site. The Power Plant and ancillary systems are built primarily on fill materials.

2.1.1 *Climate*

Bailey's eco-region classification system (Reference 8.5) has been utilized to describe climate, and associated biological interactions, throughout the world. Bailey's eco-region system is widely used by many government and non-government groups to describe climate and associated ecology in project or management areas. The descriptors identifying the eco-region that the Fermi site is located in are as follows:

Baileys Eco-region Classification for Detroit Edison's Fermi Power Plant

Domain	Humid Temperate
Division	Hot Continental
Province	Eastern Broadleaf Forest
Section	Erie and Ontario Lake Plain

2.1.2 *Topography/Geology*

Fermi Power Plant is situated in the Lake Erie lake plain. The topography at this location is flat and formed both by the physical process of Lake Erie and Swan Creek. Historically this region was part of a vast wetland complex associated with Lake Erie, Swan Creek and in part by the hydrologic processes of the Detroit and Raisin Rivers. Large lake plain deposits of clay and sand dominate the soil types as a result of the post glacial Lake Erie formation.

2.1.3 Hydrology/Streams, Rivers and Drainages

Currently the hydrology of the area is influenced greatly by the physical processes of Lake Erie. Lake Erie has a perfect fetch for seiche activity. With a predominant southwest wind pattern Lake Erie is susceptible to great fluctuations in water levels. This is due to sustained winds pushing the lake water to the east, and then, as the winds subside, the water returns to the west. This creates large waterless expanses followed quickly by water inundating into creek and river mouths resulting in a bath tub like "sloshing" effect. This creates unique opportunities for both plants and wildlife. Other local hydrological conditions are dictated by the Swan Creek.

2.1.4 Vegetation

Vegetation varies throughout the Fermi property. A survey was conducted from 2008 through 2009 and the findings have been detailed in, "Fermi 3 Terrestrial Vegetation Survey, Final Report", November 2009. Numerous land uses preceded the Power Plant including fish farming, residential and recreational. As a result of dikes, filling activity and various other disturbances, many vegetation types are in varying stages of succession.

Undeveloped areas of the site account for 656 acres and are cooperatively managed with USFWS as part of the Detroit River International Wildlife Refuge (DRIWR) Lagoona Beach Unit. The majority of the undeveloped areas are wetlands of various types (e.g., high and low marsh, wet meadow, forested wetland, scrub-shrub wetland, shallow open water, etc.).

2.1.5 Wildlife

The Fermi site has been a certified wildlife habitat site through the Wildlife Habitat Council since 2000. The focus of wildlife habitat certification is to utilize unused lands for the benefit of wildlife. A wildlife survey was conducted on the site from 2008 through 2009 and the results are documented in "Fermi 3 Terrestrial Wildlife Survey, Final Report", September 2009. The survey contains an assessment of the fox snake as follows:

Eastern fox snake (Elaphe gloydi)

State endangered. The eastern fox snake inhabits Great Lakes emergent wetlands, preferring habitats dominated by herbaceous vegetation, such as cattails (*Typha* spp.). Although primarily a wetland species, eastern fox snakes also use drier habitats such as vegetated dunes and beaches, old fields, and open woodlands. They occasionally use disturbed areas such as farm fields, pastures, woodlots, vacant urban lots, rock riprap, ditches, dikes and residential properties. eastern fox snakes usually are found near water, and are capable of swimming long distances. Specific habitat features required by eastern fox snake are downed woody debris in Great Lakes marshes, lakeplain wet prairie, lakeplain wet-mesic prairie, emergent marsh, open dunes, sand and gravel beach, mesic sand prairie, mesic southern forest and lakeplain oak openings (MNFI, 2007).

Eastern fox snake was observed in wetlands west of Doxy Road by Ducks Unlimited field staff while conducting a wetland delineation of the Fermi site in May and June 2008. The species was not observed during the present study. Portions of habitats used by the snake, principally emergent marsh, would be filled for Fermi 3 construction and some individuals could be accidentally harmed or killed if they do not withdraw from active construction areas. Scheduling of work periods should be timed to coincide with eastern fox snake active periods (as opposed to hibernation) to allow snakes to withdraw from construction areas as needed. If ground disturbing construction work involving potential hibernacula would occur during hibernation periods, it is recommended that a biologist evaluate the work area, including all ingress/egress routes, before any work begins to determine if eastern fox snake or other protected snakes are present. Suitable hibernacula for eastern fox snake generally consist of rock piles or similar structures, including railroad berms and trestle footings. Other features that retain heat from sunlight also could be used by this snake.

Significant marsh and transitional habitat would remain intact post-construction and it is expected that the eastern fox snake population within the Fermi site would persist. A site management plan that includes provisions to protect eastern fox snake habitat during construction and after construction is recommended. Based on the available information, no significant impacts are anticipated. However, available information regarding eastern fox snake habitat requirements is sketchy and as new information becomes available, the potential for impacts should be re-evaluated. Further consultation with MDNRE is recommended before construction begins.

2.1.6 Existing Land Use

The Fermi site is 1,260 acres in area of which 656 acres are undeveloped. The remaining 604 acres is used for a variety of purposes including the Fermi 2 power plant, office buildings, parking lots and maintenance buildings. Permanent impacts resulting from the construction of the Fermi 3 power plant will occur primarily on already developed or highly disturbed areas. A minimal amount of undeveloped land will be permanently impacted and those areas containing wetlands will be mitigated appropriately. A draft mitigation plan has been prepared, "Wetland Mitigation Plan, Detroit Edison, Fermi Plant, Monroe County, MI" and a finalized plan will be written prior to beginning construction activities.

2.2 Species of Concern in Plan Area

The studies which were performed to investigate the terrestrial and aquatic ecology had a particular focus on protected species within the Fermi 3 area of potential effect (APE). In addition to the eastern fox snake a wide range of species were identified as having the potential to utilize the Fermi site. Additional information on these species can be found in these survey reports: "Fermi 3 Terrestrial Vegetation Survey, Final Report", November 2009, "Fermi 3 Terrestrial Wildlife Survey, Final Report", September 2009, and "Aquatic Ecology Characterization Report, Detroit Edison Company Fermi 3 Project, Final Report", November 2009.

3.0 Project Description/Activities Covered by Permits

3.1 Project Description

Detroit Edison proposes to construct and operate an Economic Simplified Boiling Water Reactor (ESBWR) at the Fermi Nuclear Power Plant site. The Fermi site is located in Monroe County, Michigan, approximately 30 miles southwest of Detroit. There are two existing nuclear reactors at Fermi. Fermi 1 is a non-operational demonstration liquid metal fast breeder reactor that is currently undergoing decommissioning. Fermi 2 is an operating boiling water reactor. Fermi 3 will be located adjacent to and generally to the south of Fermi 2 and west of Fermi 1.

Detroit Edison is the sole owner of the existing Fermi 1 and 2 nuclear units. Detroit Edison is the licensed operator of the existing facilities, with control of the Fermi site and existing facilities. Detroit Edison will be responsible for construction and operation of the proposed Fermi 3 power plant.

The ESBWR is a 4,500 MWt reactor that uses natural circulation for normal operation and has passive safety features. General Electric Company (GE, now GE-Hitachi Nuclear Energy Americas, LLC (GEH)) submitted an application for final design approval and standard design certification for the ESBWR on August 24, 2005, which the NRC is currently reviewing under docket number 52-010. It is anticipated that the design certification of the ESBWR will be issued in fall 2011. This COL application references and incorporates the Design Control Document (DCD) currently under review in the design certification proceeding.

All aspects of the Fermi 3 project are detailed in the Fermi 3 Combined Operating and Licensing Application. The project has been designed with a goal to minimize the impacts to undeveloped areas and wetlands. Project structures are primarily to be located in already developed or heavily disturbed areas.

3.2 Activities Covered by Permit

This mitigation plan will be provided to the MDNRE as part of the permit application process. The permit(s) obtained will help determine the scope of construction activities as they pertain to eastern fox snake impacts.

4.0 Potential Biological Impacts

Fermi 3 construction activities have the potential to kill resident eastern fox snakes as well as destroy or degrade their onsite habitat.

5.0 Conservation Program/Measures to Minimize and Mitigate Impacts

Employee Education Documentation – A document will be prepared which describes the eastern fox snake and it habitat and bring attention to its threatened status. The document will contain

pictures and contact information for when sightings are made. Each construction employee will be required to review and sign in acknowledgement prior to beginning work (refer to ISO 14001 pamphlets).

Employee Education/Pre-job brief – At the beginning of each construction work shift, for those construction activities where fox snakes may be encountered, work leaders will review the possibility of discovering eastern fox snakes and the steps to be taken upon a discovery. This pre-job task will be noted on the pre-job brief checklists which are used as part of the project. Job leaders will receive additional education in order to fully understand the fox snake mitigation goals.

Prior to beginning daily work on a developed or already disturbed area, designated employees will walk down the site and observe for eastern fox snakes. Any fox snakes located in these areas will be removed by a designated Detroit Edison employee who will then relocate the snakes to undeveloped areas of the site which will not be impacted by Fermi 3 construction.

One week and again one day prior to clearing undeveloped areas, the areas will be walked through by a team led by a biologist familiar with eastern fox snakes and their habitat. Land clearing activities should be scheduled to be performed outside of the fox snakes hibernation periods so that they are active, easier to locate and safely remove from the area. During this walkthrough, any fox snakes observed will be captured and relocated to an undeveloped location on site which will not be impacted by Fermi 3 construction activities. The lead biologist will ensure that the snakes are not harmed while being captured, transported or released. Potential hiding places for the snakes will be uncovered and searched. Construction workers will continue to observe for snakes as clearing progresses. If a construction worker observes a fox snake during work activities, they are to stop work until the snake clears the area or until designated personnel can clear it from the area.

5.1 Biological Goals

The biological goals of this document have been created utilizing available literature from different sources such as the MDNRE, Michigan Natural Features Inventory, and supplemental field guides on reptiles. The over-arching goal will be to prevent the deaths of eastern fox snakes as a result of Fermi 3 construction activities through employee education and awareness, capture and release and monitoring.

5.2 Measures to Minimize Impacts

5.2.1 Redesigned site layout to minimize the impacts to undeveloped areas which provide potential habitat for eastern fox snakes. The redesign has reduced the construction impact by 117 acres.

5.2.2 Educate Employees through use of a fox snake manual to be created. Employees are to read and sign manual prior to work beginning.

5.2.3 Add fox snake to the pre-job brief checklist so that the issue is reinforced prior to work beginning each day.

5.2.4 Capture and release snakes observed during the course of construction in developed areas.

5.2.5 Search for and capture snakes found in undeveloped areas to be cleared. Release snakes to onsite undeveloped areas which will not be impacted.

5.3 Measures to Mitigate Unavoidable Impacts

5.3.1 Lead Biologist and team will walk the area(s) prior to the start of construction activities, capturing and then releasing any snakes found to a safe area.
5.3.2 Develop procedure for capture and relocation of snakes including description of devices to use and locations for release.
5.3.3 Employees are to halt work upon discovery of an eastern fox snake until the snake is clear of the activity or is removed by a designated employee.

5.4 Monitoring reports

A log will be maintained, documenting when and where monitoring is performed. In cases where a fox snake is observed while performing a walkthrough, a report will be created noting the number of snakes located and removed and where they were relocated to. A yearly report will also be created summarizing the results of the mitigation efforts. Any snakes killed in the construction process will be reported to the MDNRE as required by applicable take permits.

6.0 Funding

Funding for fox snake mitigation efforts will be provided as part of the Detroit Edison Fermi 3 construction budget.

7.0 Changed Circumstances

If during the course of construction any changes in the Fermi 3 site layout are made which will potentially impact fox snakes or fox snake habitat then those employees involved with conducting fox snake surveys will be contacted. These employees will modify the scope of their surveyed areas to include the new areas to be impacted.

8.0 References

8.1 Weatherby, C. A.,Michigan Nature Conservancy Elaphe vulpina gloydi and Clonophis kirtlandii 1986 contracted survey. Michigan Nature Conservancy, Unpublished, rep. 25 pp.

8.2 Lee, Y., "Special animal abstract for *Elaphe vulpina gloydi* (eastern fox snake). Michigan Natural Features Inventory, Lansing, MI. 3 pp.

8.3 Michigan Department of Natural Resources, Endangered Species Assessment http://www.mcgi.state.mi.us/esa, accessed January 15, 2010

8.4 Michigan Department of Natural Resources, Endangered Species Assessment, Map http://www.mcgi.state.mi.us/esa/map.asp?action=map_south, accessed January 15, 2010

8.5 Bailey, R.G., Ecoregions of the United States, 1978

9.0 Appendix

Figure 1 – Wetland Delineation

N

GRAPHIC SCALE

300 0 250 500 1000 2000

(IN FEET)
1 inch = 500 ft.

LEGEND

PSS	PALUSTRINE SCRUB SHRUB WETLAND
PEM	PALUSTRINE EMERGENT WETLAND
PFO	PALUSTRINE FORESTED WETLAND
	APPROXIMATE PROPERTY LINE
	OPEN WATER (FLAGGED)
	OPEN WATER (NOT FLAGGED)
	WETLAND BOUNDARY
	DATA POINT
	HORIZONTAL & VERTICAL CONTROL

HORIZONTAL CONTROL – Coordinates are NAD 83 (CORS 1996) Michigan State Plane Coordinates, South Zone # 2113, units international feet. Coordinates established from NGS OPUS (National Geodetic Survey, Online Positioning User Service) solution for control point 81. Raw data was collected for 5 hours on June 4, 2008 using a Trimble 4700 GPS base receiver. OPUS solution for control point 81, North 167655.689 ift.
East 13420948.599 ift.

ONSITE CONTROL, HORIZONTAL

Control Point # 1 – Found concrete monument with brass cap on south side of Fermi Drive near sign.
N. 169217.291 ift.
E. 13423438.587 ift.

Control Point # 87 –Found concrete monument with brass cap on south side of Fermi Drive, 1.6 feet south of edge of pavement stamped "N.5106.143, E 3600 , EL. 580.167.
N. 169181.477 ift.
E. 13422586.221 ift.

Control Point # 81 – Found yellow capped iron rod #29252, lathe marked "#81 DTE"
N. 167655.689 ift.
E. 13420948.599 ift

Global Leader in Wetlands & Wildlife Conservation

GREAT LAKES/ATLANTIC REGIONAL OFFICE
ANN ARBOR, MICHIGAN (734) 623-2000

DUCKS UNLIMITED

OVERALL WETLAND DELINEATION
DTE FERMI II PLANT
MONROE COUNTY, MICHIGAN

REVISIONS:

CAD FILE: Overall Wetland Delineation
DESIGNED BY: –
DRAWN BY: GB
SURVEYED BY: GB,WM,PW
BOOK NO. # 16 PAGE 13
DATE: 7/7/08
PROJECT NO.: US-MI-188-1
GLARO-MI3-46-2

DTE000005
3/29/2013

Attachment 7
NRC3-10-0005

Enclosure 3

MDNR Discussions
(following 6 pages)

Summary of Discussion with the MDNR on the Fermi 3 Impact on Fox Snakes

A meeting was held on April 14, 2009 with the Michigan Department of Resources employee Chris Hoving (Threatened and Endangered Species Coordinator) to discuss the impact of the proposed Fermi 3 power plant on the resident population of the threatened eastern fox snake.

DTE Representation:

Randy Westmoreland

Matt Shackelford

Craig Tylenda

The meeting was held to primarily inform Mr. Hoving of the goal of modifying the site plan to minimize the impact to the site's coastal wetlands, a preferred habitat of the eastern fox snake, and other efforts to minimize the impact to the snake populations.

- The eastern fox snake is a subspecies of the fox snake and its habitat around Michigan is primarily around lakeshores
- A PowerPoint presentation was made and described :
    - The current site arrangement
    - The arrangement, size and flow of the site's wetlands
    - The proposed revised site arrangement
- It was apparent that Mr. Hoving had reviewed at least part of the ER and had some background based on his discussions with Lori Sargent.
- Chris appeared pleased that the revised plan would so greatly diminish the overall wetland impact.
- The DNR will need to issue a permit before construction is allowed to commence
- All relevant wildlife data and site plan information will be submitted to the DNR prior to construction and ultimately Mr. Hoving or whoever may be holding his position in the future would write the permit. The permit will describe the allowable impacts.

The meeting appeared useful in educating Mr. Hoving on the project in general and the goals of minimizing impacts to wildlife habitat and threatened and endangered species. It also appeared to be a good start toward forming a positive and productive relationship with the DNR as the project advances.

JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
LANSING

REBECCA A. HUMPHRIES
DIRECTOR

February 9, 2009

Mr. Gregory P. Hatchett, Acting Chief
Environmental Projects Branch 2
Division of Site and Environmental Reviews
Office of New Reactors
US Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Mr. Hatchett:

Thank you for the Fermi 3 Combined License Application, Part 3: Environmental Report. A response to a threatened/endangered species review of the Fermi 3 proposed project in Wayne County, Michigan was sent from this office to the Black & Veatch Corporation November 28, 2007. In that response four endangered or threatened animal species were listed as being present in the area as were three species of threatened plants. Upon review of this report I noticed some discrepancies and causes for concern in regard to threatened species protection.

One animal species that is of primary concern in the area is the Eastern fox snake (*Pantherophis gloydi*). On page 2-333 of the Environmental Report it states that "nine occurrences were reported in Monroe County...the snake was sighted two times on the Fermi property in June 2008." There is a discrepancy to this statement on page 4-45 where it states "The eastern fox snake (a Michigan threatened species) has not been observed on the Fermi property, but the potential for its occurrence on the property does exist."

According to our records there is a viable population of Eastern fox snake at the site of the proposed project. We believe that going forward with the construction would not only kill snakes but destroy the habitat in which they live and possibly exterminate the species from the area. We would like to see a plan for protection of this rare species with regard to this new reactor project.

Please contact me if you have questions or concerns. Thank you.

Sincerely,

Lori G. Sargent
Endangered Species Specialist
Wildlife Division
(517) 373-1263

cc: Dr. Ralph E. Brooks, Black & Veatch Corporation
Detroit Edison
Michigan Department of Environmental Quality, Jackson District
US Army Corps of Engineers
Peter Wyckoff, Ducks Unlimited
Frenchtown Township

JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
LANSING

REBECCA A. HUMPHRIES
DIRECTOR

November 28, 2007

Dr. Ralph E. Brooks
Black & Veatch Corporation
4800 Meadows Road, Suite 200
Lake Oswego, OR 97035

RE: **Proposed new nuclear power electrical generating facility at Consumers Power Enrico Fermi Facility; B&V Project 147483**

Dear Dr. Brooks:

The location of the proposed project was checked against known localities for rare species and unique natural features, which are recorded in a statewide database. This continuously updated database is a comprehensive source of information on Michigan's endangered, threatened and special concern species, exemplary natural communities and other unique natural features. Records in the database indicate that a qualified observer has documented the presence of special natural features at a site. The absence of records may mean that a site has not been surveyed. The only way to obtain a definitive statement on the presence of rare species is to have a competent biologist perform a field survey.

Under Act 451 of 1994, the Natural Resources and Environmental Protection Act, Part 365, Endangered Species Protection, "a person shall not take, possess, transport, ...fish, plants, and wildlife indigenous to the state and determined to be endangered or threatened," unless first receiving an Endangered Species Permit from the Department of Natural Resources, Wildlife Division. *Responsibility to protect endangered and threatened species is not limited to the list below. Other species may be present that have not been recorded in the database.*

The presence of threatened or endangered species does not preclude activities or development, but may require alterations in the project plan. Special concern species are not protected under endangered species legislation, but recommendations regarding their protection may be provided. Protection of special concern species will help prevent them from declining to the point of being listed as threatened or endangered in the future.

The following is a summary of the results for the project in Monroe County, sections 20, 21, 28, 29 T6S R10E.

The following list includes unique features that are known to occur on or near the site(s) and may be impacted by the project.

common name	status	scientific name
Barn owl	**state endangered**	***Tyto alba***
Common tern	**state threatened**	***Sterna hirundo***
Eastern fox snake	**state threatened**	***Pantherophis gloydi***
Bald eagle	**state threatened**	***Haliaeetus leucocephalus***

Brindled madtom	**special concern**	***Noturus miurus***
American lotus	**state threatened**	***Nelumbo lutea***
Arrowhead	**state threatened**	***Sagittaria montevidensis***
Frank's sedge	**state threatened**	***Carex frankii***
Trailing wild bean	**special concern**	***Strophostyles helvula***

More detailed information regarding habitats and biology on these species can be found at http://web4.msue.msu.edu/mnfi/pub/abstracts.cfm .

In summary, the project site may include suitable habitat for the above listed species. Potential impacts might include direct destruction of species and disturbance of critical habitat. **Clearance from this office in the form of a "No Effect" statement will be needed before work on this project begins.** To obtain an evaluation for project clearance, please provide **at least one** of the following to this office:

1. Description of the project area with regard to the species habitat type(s) described above. A recent photo of the project site and a map that shows habitat type(s) and location(s) of the proposed project will be necessary. This can be done by the landowner, other responsible party, or knowledgeable source (i.e. botanist, ecologist, biologist, experienced birder, etc.). This level of evaluation will only define the presence or absence of available habitat. If this office determines that there is no significant available habitat, the project may be cleared at this point. If potential habitat does exist, the next level of evaluation must be undertaken (see options 2 or 3 below).

OR

2. A statement from a knowledgeable source (see above) stating that suitable habitat is or is not present and why the project will not impact the species or habitat(s) identified above.

OR

3. Results from a complete and adequate survey by a knowledgeable source (see above) showing whether or not the above listed species are present in the affected project area. Guidelines for conducting surveys can be obtained from this office on request. For additional information and guidance for conducting surveys, including consultation with MNFI staff biologists, please contact me at the number below or go to the DNR website at www.michigandnr.com/publications/pdfs/huntingwildlifehabitat/TE_consultants.pdf .

In most situations, the most efficient, thorough, and expeditious evaluation of the project and its impacts results from option 3. Please provide information **in writing** to the mailing address or e-mail provided below.

Michigan Department of Natural Resources
Wildlife Division – Natural Heritage Program
PO Box 30180
Lansing, MI 48909

Thank you for your advance coordination in addressing the protection of Michigan's natural resource heritage. If you have further questions, please call me at 517-373-1263 or e-mail at SargenL2@michigan.gov .

Sincerely,

Lori G. Sargent
Endangered Species Specialist
Wildlife Division