

## Fermi3CEm Resource

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**From:** Dexter, James (DNR) [DexterJ1@michigan.gov]  
**Sent:** Thursday, January 12, 2012 11:05 AM  
**To:** Fermi3COLEIS Resource  
**Subject:** Draft Environmental Impact Statement - Fermi Unit 3 Combined License Application

On behalf of Dr. Kelley D. Smith, Acting Deputy Director for the Michigan Department of Natural Resources, please accept these comments regarding Fermi Unit 3.

**SUBJECT:** Michigan Department Of Natural Resources Comments  
Draft Environmental Impact Statement - Fermi Unit 3 Combined License Application

The Michigan Department of Natural Resources (Department) has reviewed the draft environmental impact statement (DEIS) for the proposed expansion at the FERMI nuclear site operated by Detroit Edison. The Department has some concerns regarding the resulting effects from operating the proposed FERMI Unit 3 reactor. While the Department acknowledges that on the scale of Lake Erie the effects of operating the FERMI Unit 3 Reactor may be low, it is important that additional consideration be given to potential effects in the Western Basin of Lake Erie and within the project area for effects on fish and wildlife resources including cumulative impacts resulting from this additional operation.

Our specific comments are as follows:

1. The thermal plume that will result from the operation of the FERMI 3 reactor will increase the current thermal discharge to Lake Erie from the operation of the FERMI 2 reactor. While the current proposed design attempts to minimize the area and volume of water influenced by the temperature increase from the discharge plume, the expected affects are likely to be more significant on Lake Erie resources in the area of the project than the DEIS suggests. The Department requests that a detailed thermal analysis be conducted as part of the EIS process for this project that fully examines the effects of operating this additional reactor on the water temperature regime in the Western Basin of Lake Erie. This analysis should include an evaluation of the effects of the likely thermal plume from this expanded project on fish and wildlife resources in the project area, the cumulative effects of this project on Western Basin water temperatures when other thermal discharges are considered, and recommended best available technologies to effectively minimize these thermal effects.
2. Impingement and Entrainment - The DEIS discusses the effects of fish mortality from entrainment through the cooling water intake system for the FERMI 3 reactor based on estimates from studies conducted at the FERMI 2 reactor intake. Results from two different studies are presented with significantly greater entrainment and mortality during the most recent study. The DEIS appears to minimize the effect of the impacts of entrainment by comparing the results to the overall populations

within Lake Erie. There is less analysis of the effects on a regional and localized level. While most of the adults, juveniles, eggs and larval fish are comprised of forage species, that does not mean they lack significance in the vicinity of the proposed project. In addition to the entrainment and mortality of forage species, significant numbers of game fish of several species are included in the results. It is not clear from the DEIS that the level of entrainment will not have an effect on local populations. An additional critical concern with the most recent entrainment study is the relatively short time period covered. While covering all seasons, it does not address the issue of variance between years that is likely to be large and unaccounted for by a single year study. The Department recommends that the applicant either consider the results of the most recent entrainment study as a minimum estimate of entrainment and fully develop needed mitigative measures based on this estimate or develop improved estimates using a new entrainment study that covers at least 2 years.

The proposed traveling screen system appears to be adequate for handling and reducing mortality of large juveniles and adult fish, however the Department requests that the applicant review the current available best technology for reduction of larval and egg mortality and provide a set of recommended technologies that are feasible for installation at the FERMI 3 project. The Department anticipates there will be new requirements for intake systems in 2012; therefore the applicant should be prepared to revisit the intake protection standards. While the proposed new regulations are under Environmental Protection Agency review, the Department suggests the applicant review the Michigan Department of Environmental Quality guidance for intake structures which can be found on the internet at:

[http://www.michigan.gov/deq/0,1607,7-135-3313\\_3682\\_3713---,00.html](http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3713---,00.html) .

The Department appreciates the opportunity to comment on the DEIS for this facility expansion. If you have any questions or need clarification, please feel free to contact Kyle Kruger, Fisheries Division (989-826-3211, [krugerk@michigan.gov](mailto:krugerk@michigan.gov)).

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**Federal Register Notice:** 76FR66998  
**Comment Number:** 59

**Mail Envelope Properties** (01068D22A4D1C34799756F802BBB889D0DDC4D29CC)

**Subject:** Draft Environmental Impact Statement - Fermi Unit 3 Combined License  
Application  
**Sent Date:** 1/12/2012 11:04:43 AM  
**Received Date:** 1/12/2012 11:07:41 AM  
**From:** Dexter, James (DNR)

**Created By:** DexterJ1@michigan.gov

**Recipients:**  
"Fermi3COLEIS Resource" <Fermi3COLEIS.Resource@nrc.gov>  
Tracking Status: None

**Post Office:** HCT084VSNBE007.som.ad.state.mi.us

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	4982	1/12/2012 11:07:41 AM

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