

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
Before the Atomic Safety and Licensing Board

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DECLARATION OF DIANE D'ARRIGO
IN SUPPORT of Joint Petitioners
In the matter of Detroit Edison Company
Fermi 3
NRC3-08-0005

I, Ms. Diane D'Arrigo, hereby declare as follows:

1. I am the Radioactive Waste Project Director at Nuclear Information and Resource Service (NIRS) at 6930 Carroll Avenue, Suite 340, Takoma Park, Maryland 20912, and have been at NIRS for 23 years.
2. I am an expert on the policy aspects and general technical characteristics of so-called "low-level" radioactive waste. I hold a Bachelor of Science degree in chemistry with a course concentration in environmental studies and a postgraduate environmental law course. My work experience has been with industry research and development, academic research, laboratory analysis, public interest research, and environmental advocacy. I have closely followed the so-called "low-level" radioactive waste issue since the passage of the 1980 Low Level Radioactive Waste Policy Act and its 1985 Amendments, including efforts to site new waste repositories and to deregulate/declare "below regulatory concern"/release/clear the waste from radioactive regulatory control. I regularly make presentations and occasionally provide testimony to legislators and regulators on related topics. For over twenty five years I have been tracking and participating in policy-making and implementation of policies regarding the generation, disposal, management and deregulation of nuclear waste and materials, primarily from the operation of nuclear power plants and their fuel chain. My work has included research and public education on safety and environmental risks posed by wastes from the operation of nuclear power plants and the fuel chain and the regulations for disposal. I have spoken publicly and published articles on these topics.

3. I am familiar with the current situation in the United States with regard

to “low-level” radioactive waste and with the legislative and regulatory history from the early 1980s up to the present. I am generally familiar with NRC policies and regulations with respect to “low-level” radioactive waste.

4. There is clear public concern about so-called “low-level” radioactive waste especially the highly concentrated, long-lasting, biologically active waste in Classes B, C and Greater-Than-C. The majority of the radioactivity in this waste comes from nuclear power reactors, such as the proposed Fermi 3 nuclear power reactor.

5. As of July 1, 2008, the Barnwell, South Carolina disposal site has limited its access to waste generated within the Atlantic Compact (SC, NJ, CT). The US Ecology-run commercial radioactive waste disposal site at Hanford/Richland Washington already limits access to generators in the Northwest and Rocky Mountain States only. A recently licensed, but legally contested site in Texas can take waste from Texas and Vermont only. For the rest of the country, then, including Michigan and Tennessee (location of most 3rd party nuclear waste processors), generators of Class B and C radioactive waste have no licensed disposal site to which to send their waste. In addition, there is no disposal site for Greater-than-C radioactive wastes which would be generated by the Fermi 3 reactor if it were to operate.

6. The nuclear utilities and the NRC are developing guidelines for extended long-term on-site storage of so-called “low level” radioactive waste at nuclear power reactors. This is not a responsible permanent solution for isolation of these long-lasting, highly concentrated radioactive wastes. As with high level radioactive waste, the outcome could likely be de-facto permanent onsite storage at the reactor site. Rather than

assume off-site disposal will become available, Detroit Edison should show that the Fermi 3 site can meet licensing criteria for disposal and/or very long term storage of the radioactive waste it generates. A likely and completely realistic scenario is that the waste generated by the Fermi 3 will not leave the site.

7. In its application, Detroit Edison has failed to address how its Class B, C and Greater-Than-C “low-level” radioactive waste will be disposed according to NRC regulations. Some of the wastes in the “low-level” category will remain radioactively hazardous well beyond the 60 year plan described for onsite of the waste management and packaging for offsite disposal. This could significantly affect the health, safety and security of the site. Serious consideration must be given to meeting the NRC criteria for nuclear waste disposal equivalent to 10 CFR 61 or Michigan’s state requirements.

8. Absent any known licensed disposal for Classes B, C and Greater-Than-C radioactive waste to which Detroit Edison has access, the applicant must analyze the impacts of alternatives for its “low-level” radioactive waste disposal. The application is incomplete because there is no "realistic" alternative for nuclear waste isolation and disposal proposed. Although onsite storage is discussed, this is not final disposal of Class B, C or Greater-Than-C wastes, which will be generated by the Fermi 3 nuclear reactor.

9. Some so-called “low-level” radioactive waste can give high doses of radiation if one is exposed unshielded. According to the Government Accounting Office (GAO/RCED-98-40R Questions on Ward Valley, 5-22-98 pp. 49-52) some so-called ‘low-level’ radioactive waste can give a lethal dose at one meter, unshielded, in approximately 20 minutes. In addition, so-called ‘low-level’ radioactive wastes

“contain every radionuclide found in ‘high-level’ radioactive waste...low-level radioactive wastes constitute a very broad category containing many different types and concentrations of radionuclides, including the same radionuclides that may be found in high-level radioactive wastes.”

These include plutonium-239 (hazardous life 250 to 500 thousand years), iodine-129 (hazardous life 170 to 340 million years), strontium 90 (hazardous life 280-560 years) and cesium-137 (hazardous life 300 to 600 years).

It is imperative that the safety and security issues of permanent on-site storage/de-facto disposal of radioactive waste be addressed in Detroit Edison’s COL application.

10. The assumption appears to be that there will be a site that accepts the full range of waste generated by Fermi 3. The Process Control Program, while explaining temporary storage, does not explain how the application will comply with the need for permanent disposal of long-lasting radioactive in the absence of licensed disposal facilities for Classes B, C and Greater-Than-C waste. Even waste sent offsite to vendors, could be returned for storage in the absence of permanent disposal. The unsubstantiated assumption is made that the vendor will render all waste suitable for some offsite disposal site.

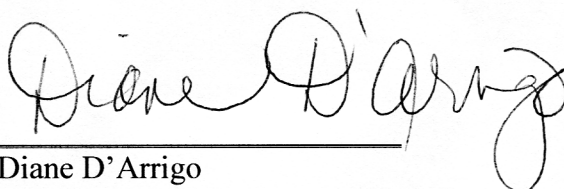
11. The special location of the site on water deserves deeper evaluation from the perspective of exorbitant water use, to potential contamination by routine releases and unintended possible radioactive and heat releases from reactor and waste processing,

treatment and/or storage operations. The fact that there are other reactors in the same watershed should be factored in.

12. The risk of flooding and receding shorelines at this site and consequences of dispersal of the large amounts of radioactivity that would accumulate as all the Class B, C and Greater than C waste is stored onsite has not been adequately addressed.

13. There is no justification provided for producing long-lasting, intensely radioactive wastes for which no disposal exists. There is no realistic plan for isolation of the wastes or permanent disposal of the wastes. Considering the long history of failed so-called "low-level" radioactive waste disposal sites in the country, assumptions that new ones will be available are not justified.

I declare under penalty of perjury that the foregoing statements of fact are true and correct to the best of my knowledge and that the opinions expressed herein are based on my best professional judgment.

A handwritten signature in black ink, appearing to read "Diane D'Arrigo", written over a horizontal line.

Diane D'Arrigo
Radioactive Waste Project Director
Nuclear Information and Resource Service

Dated: March 6, 2009

April 16, 2009

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
Before the Atomic Safety and Licensing Board

In the Matter of:)	Docket No. 52-033
The Detroit Edison Company)	
(Fermi Nuclear Power Plant,)	
Unit 3))	

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the "Declaration of Diane D'Arrigo" has been served on the following persons via Electronic Information Exchange this 16th day of April, 2009:

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