Environmental Impact Statement Scoping Process

Summary Report

Fermi Nuclear Power Plant, Unit 3
Monroe County, Michigan
Combined License Environmental Review

June 2009

U.S. Nuclear Regulatory Commission
Rockville, Maryland

Contents

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1. Introduction and Summary

On September 18, 2008, Detroit Edison Company (Detroit Edison) submitted to the U.S. Nuclear Regulatory Commission (NRC) an application for a combined license (COL) for construction and operation of a new commercial nuclear power reactor, the Fermi Nuclear Power Plant, Unit 3 (Fermi 3), at its existing Fermi site. The Fermi site is located in eastern Monroe County, Michigan, along the western shore of Lake Erie, approximately 24 miles northeast of Toledo, Ohio, 30 miles southwest of Detroit, Michigan, and 7 miles from the United States/Canada international border.

As part of the application, Detroit Edison submitted an Environmental Report (ER) prepared in accordance with the requirements of Title 10 of the *Code of Federal Regulations* (CFR) Part 51 (10 CFR Part 51) and 10 CFR Part 52. The ER focuses on potential environmental effects from the construction and operation of a new nuclear power plant at the Fermi site. It also includes an evaluation of the environmental consequences of alternatives to the proposed action and discusses any actions that may be taken to mitigate environmental impacts. NRC regulations related to the environmental review of COL applications are contained in 10 CFR Part 51 and 10 CFR Part 52, Subpart C. In addition, the environmental review is conducted in accordance with NUREG-1555, *Standard Review Plans for Environmental Reviews for Nuclear Power Plants*. The NRC staff is concurrently conducting a safety review of the Detroit Edison COL application in accordance with NUREG-0800, *Standard Review Plan for the Review of Safety Analysis for Nuclear Power Plants*.

The NRC staff is preparing an Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended, in response to the COL application. The EIS will evaluate the environmental impacts of construction and operation of a new baseload nuclear power generation facility, Fermi 3, on the existing Fermi site, in support of the NRC's proposed action to issue a combined license to Detroit Edison for the facility. The EIS will also include an evaluation of the environmental impacts of alternatives to the proposed action, including the no-action alternative, alternative energy options, alternatives related to the facility cooling and circulating water systems, and alternative sites. The evaluation of alternative sites will determine if there is an obviously superior alternative to the proposed site.

NRC regulations that implement NEPA are contained in 10 CFR Part 51, Subpart A. In addition, NRC follows Council on Environmental Quality regulations to the extent set forth in 10 CFR 51.10 and 10 CFR 51.14(b).

On December 10, 2008, in accordance with 10 CFR 51.26, NRC initiated the EIS scoping process by publishing a Notice of Intent to Prepare an Environmental Impact Statement and Conduct Scoping Process in the *Federal Register* (73 FR 75142). Through this notice, NRC invited Detroit Edison; Federal, Tribal, State, and local government agencies; and individuals to participate in the scoping process by providing oral comments at two public scoping meetings and/or by submitting written comments no later than February 9, 2009.

The scoping process provides an opportunity for public participation to identify issues to be addressed in the EIS. The Notice of Intent identified the following objectives of the scoping process:

- Define the proposed action that is to be the subject of the EIS.

- Determine the scope of the EIS and identify the significant issues to be analyzed in depth.
- Identify and eliminate from detailed study those issues that are peripheral or that are not significant.
- Identify any environmental assessments and other EISs that are being or will be prepared that are related to but not part of the scope of the EIS being considered.
- Identify other environmental review and consultation requirements related to the proposed action.
- Identify parties NRC must consult with under the National Historic Preservation Act, as set forth in 36 CFR 800.8(c)(1)(i).
- Indicate the relationship between the timing of the preparation of the environmental analyses and the Commission's tentative planning and decision-making schedule.
- Identify any cooperating agencies and, as appropriate, allocate assignments for preparation and schedules for completing the EIS to the NRC and any cooperating agencies.
- Describe how the EIS will be prepared, including any contractor assistance to be used.

The public scoping meetings were held at the Monroe County Community College's La-Z-Boy Center Meyer Theater in Monroe, Michigan, on Wednesday, January 14, 2009. NRC announced the meetings in the Notice of Intent and in local newspapers (*Detroit Free Press*, *Toledo Blade*, *Monroe Evening News*, and *Windsor Star*), issued a press release, and distributed flyers locally. Approximately 100 individuals attended the afternoon scoping meeting session, and approximately 60 attended the evening session.

The scoping meetings began with NRC staff members providing a brief overview of NRC's review process for COL applications and the NEPA process. After NRC's prepared statements, the meetings were opened for public comments. Forty afternoon scoping meeting attendees and 25 evening attendees provided either written statements or oral comments that were recorded and transcribed by a certified court reporter. The meeting summary, which was issued on March 3, 2009, is available electronically for public inspection in the NRC Public Document Room, from the Publicly Available Records component of NRC's Agencywide Documents Access and Management System (ADAMS) under Accession Number ML090291080, or in NRC's public website at http://www.nrc.gov/reactors/new-reactors/col/fermi.html#nrcDocuments. ADAMS is accessible from the NRC website at http://www.nrc.gov/reading-rm/adams.html. Note that the URLs identified above are case-sensitive.

At the conclusion of the scoping period, the NRC staff and its contractor, Argonne National Laboratory, identified individual comments from the transcripts of the public meetings and all written material received. The transcripts can be found under Accession Numbers ML090440586 and ML090440588 in ADAMS. The written comments provided at the public meetings can be found in ADAMS under Accession Numbers ML090440585, ML090480683 and ML090430317. In addition, 26 letters and 51 e-mails containing comments were received during the scoping period and are also in ADAMS (see below). All comments and suggestions received orally during the scoping meetings or in writing were considered by the NRC staff.

Table 1 identifies in alphabetical order the individuals providing comments, their affiliation (if given), the ADAMS Accession Number for each comment document (transcript, e-mail, letter, or

other document in which comments were made), and the comment document identification (ID) number.

Comment documents frequently contained a number of individual, discrete comments that focused on particular issues or topics. Each of these discrete comments was assigned an ID number according to the sequence of occurrence within the comment document. Thus, unique comment ID numbers in this report consist of the comment document ID number and discrete comment ID number separated by a hyphen. For example, 0058-3 refers to the third comment within comment document 0058. Table 2 lists all of the comments according to comment category, commenter name, and comment ID number.

All comments and NRC-prepared responses are presented in Section 2. The comment categories and corresponding section numbers are listed in Table 3. For each comment, the comment ID number and commenter's name are provided in parentheses following the text of the comment. Comments with similar content were grouped together and received a single response.

The draft EIS for Detroit Edison's COL application will address the relevant environmental issues raised during the scoping process, among many other factors. The draft EIS will be made available for public comment. Interested Federal, Tribal, State, and local government agencies and members of the public will be given the opportunity to provide comments on the draft EIS. The NRC staff will consider these comments during the development of the final EIS.

Table 1. Individuals Providing Comments During the Scoping Period

Commenter	Affiliation (if given)	Comment Source and ADAMS Accession Number	Comment Document ID Number
Richa[(a)]		E-mail (ML091020580)	0006
Anderson, Alan	Southern Wayne County Regional Chamber	Meeting Transcript (ML090440586)	0058
Askwith, Annemarie		E-mail (ML090401003)	0027
B., M. J.[(b)]		Written Materials from Afternoon Scoping Meeting (ML090440585)	0082
Baker, Mildred M		E-mail (ML090401002)	0026
Barnes, Kathryn	Don't Waste Michigan, Sherwood Chapter	Written Materials from Evening Scoping Meeting (ML090480683)	0083
Barnes, Kathryn		Meeting Transcript (ML090440588)	0059
Barnes, Kathryn		Written Materials from Evening Scoping Meeting (ML090480683)	0083
Bell, Mary Faith	Sisters, Servants of Immaculate Heart of Mary	Letter (ML090440092)	0063
Bettega, Gayle		E-mail (ML090410070)	0047
Biernot, Marilyn		E-mail (ML090340438)	0020
Bihn, Sandy	Western Lake Erie Association	Written Materials from Afternoon Scoping Meeting (ML090440585)	0082
Bihn, Sandy	Western Lake Erie Association	Meeting Transcript (ML090440586)	0058
Brown, George	City of Monroe	Meeting Transcript (ML090440586)	0058
Browne, Elizabeth M.	Land and Water Management Division, Michigan Department of Environmental Quality	Letter (ML0906504561)	0079
Campana, Jean Ann		Letter (ML0904402021)	0075
Cappuccilli, Al		Written Materials from Afternoon Scoping Meeting (ML090440585)	0082
Carey, Corinne	Don't Waste Michigan	E-mail (ML09120578)	0004
Carroll, Connie	United Way of Monroe County	Meeting Transcript (ML090440586)	0058

Table 1. (contd)

Commenter	Affiliation (if given)	Comment Source and ADAMS Accession Number	Comment Document ID Number
Carroll, Connie	United Way of Monroe County	Meeting Transcript (ML090440588)	0059
Colligan, Mary A.	National Marine Fisheries Service, Northeast Region	Letter (ML090711069)	0085
Conner, Mary V.		E-mail (ML090401007)	0030
Cumbow, Kay	Citizens for Alternatives to Chemical Contamination	E-mail (ML090410081)	0051
Cumbow, Kay	Citizens for Alternatives to Chemical Contamination	Meeting Transcript (ML090440586)	0058
Czarnecki, Craig A.	U.S. Fish and Wildlife Service, East Lansing Office	Letter (ML090750973	0087
D'Amour, James Carl		E-mail (ML090401016)	0038
Davis, Gary		Letter (ML09040093)	0064
Diederichs, Dorothy		Letter (ML09040094)	0065
Drake, Gerald A.		E-mail (ML090410097)	0054
Duggan, Marion		Letter (ML0904400870)	0067
Dyson, Ed		Meeting Transcript (ML090440586)	0058
Eddy, Dorothy	Sisters, Servants of the Immaculate Heart of Mary	Letter (ML090440196)	0069
Edwards, Gordon	Canadian Coalition for Nuclear Responsibility	E-mail (ML090410071)	0048
Ellison, Jacob		Meeting Transcript (ML090440586)	0058
Englund, Lance		E-mail (ML090401035)	0041
Farris, Mark		Meeting Transcript (ML090440588)	0059
Fedorowicz, Meg		E-mail (ML090410092)	0052
Feldpausch, Larry		Meeting Transcript (ML090440586)	0058
Feldpausch, Regina A.		Letter (ML0906504611)	0077
Fischer, Lydia		Meeting Transcript (ML090440586)	0058
Freiburger, Chris	Michigan Department of Natural Resources	E-mail (ML090401006)	0029
Fulara, Dan		Meeting Transcript (ML090440588)	0059

Table 1. (contd)

Commenter	Affiliation (if given)	Comment Source and ADAMS Accession Number	Comment Document ID Number
Green, Frank		Meeting Transcript (ML090440588)	0059
Gruelle, Martha	Wildlife Habitat Council	Written Materials from Afternoon Scoping Meeting (ML090440585)	0082
Guthrie, Patricia		E-mail (ML0904430199)	0055
Hart, Donna		E-mail (ML090350415)	0021
Henige, Ann		Meeting Transcript (ML090440588)	0059
Henige, Ann		Written Materials from Evening Scoping Meeting (ML090480683)	0083
Henige, Margaret Ann	Sisters, Servants of the Immaculate Heart of Mary	Letter (ML090440091)	0062
Hesson, Gerald		Meeting Transcript (ML090440586)	0058
Holden, Anna		Meeting Transcript (ML090440586)	0058
Hungerman, Marie Gabriel		E-mail (ML090400999)	0024
Ingels, Mike		Meeting Transcript (ML090440588)	0059
Kamps, Kevin and Keegan, Michael		Written Materials from Evening Scoping Meeting (ML090430317)	0084
Kamps, Kevin	Beyond Nuclear	E-mail (ML090410076)	0050
Kamps, Kevin	Beyond Nuclear	Letter (ML0902804060)	0057
Kamps, Kevin	Beyond Nuclear	Meeting Transcript (ML090440586)	0058
Kamps, Kevin	Beyond Nuclear	Meeting Transcript (ML090440588)	0059
Karas, Josephine		Letter (ML090440197)	0070
Kaufman, Hedi		E-mail (ML090401038)	0042
Kaufman, Hedi		Written Materials from Evening Scoping Meeting (ML090480683)	0083
Kaufman, Hedwig		Meeting Transcript (ML090440588)	0059

Table 1. (contd)

Commenter	Affiliation (if given)	Comment Source and ADAMS Accession Number	Comment Document ID Number
Kaufman, Hedwig		Written Materials from Evening Scoping Meeting (ML090480683)	0083
Keegan, Michael		Meeting Transcript (ML090440586)	0058
Keegan, Michael		Meeting Transcript (ML090440588)	0059
Keith, Fred		Meeting Transcript (ML090440586)	0058
Lavelline, Joe	Michigan Chapter of the American Nuclear Society	Meeting Transcript (ML090440586)	0058
Lavelline, Joe	Michigan Chapter of the American Nuclear Society	Meeting Transcript (ML090440588)	0059
Lavelline, Joe	Michigan Chapter of the American Nuclear Society	Written Materials from Evening Scoping Meeting (ML090480683)	0083
Lawson, Ph.D., Charles	International Joint Commission	E-mail (ML090270697)	0015
Lawson, Ph.D., Charles	International Joint Commission	Letter (ML090440198)	0071
Leonard, Dolores		E-mail (ML090291092)	0017
Lodge, Terry		E-mail (ML090410065)	0045
Lodge, Terry		Written Materials from Afternoon Scoping Meeting (ML090440585)	0082
Lodge, Terry		Meeting Transcript (ML090440586)	0058
Mahoney, Charlie	Four-M Associates-Communications Group	E-mail (ML090230099)	0010
Mangano, Joseph		Written Materials from Evening Scoping Meeting (ML090430317)	0084
Mantai, Frank		Meeting Transcript (ML090440588)	0059
Mantai, Frank		Written Materials from Evening Scoping Meeting (ML090480683)	0083
Marks, Esq., D.Min, Bertram		E-mail (ML090230107)	0014
May, Ron	Detroit Edison	Meeting Transcript (ML090440586)	0058

Table 1. (contd)

Commenter	Affiliation (if given)	Comment Source and ADAMS Accession Number	Comment Document ID Number
May, Ron	Detroit Edison	Meeting Transcript (ML090440588)	0059
McArdle, Ed		Meeting Transcript (ML090440586)	0058
McGuire, Jim	Area Agency on Aging	Meeting Transcript (ML090440586)	0058
Mechtenberg, Marilynn	Sisters, Servants of the Immaculate Heart of Mary	E-mail (ML090400997)	0023
Mentel, Floreine	Monroe County	Meeting Transcript (ML090440586)	0058
Mentel, Floreine	Monroe County	Meeting Transcript (ML090440588)	0059
Meyer, Richard		Meeting Transcript (ML090440586)	0058
Meyers, Marcie		Meeting Transcript (ML090440588)	0059
Micka, Jeanne	Lotus Garden Club of Monroe	Written Materials from Afternoon Scoping Meeting (ML090440585)	0082
Micka, Jeanne	Lotus Garden Club of Monroe	Meeting Transcript (ML090440586)	0058
Micka, Richard	Experiential Tourism Task Group War of 1812 Bicentennial Steering Committee	Written Materials from Afternoon Scoping Meeting (ML090440585)	0082
Micka, Richard	Experiential Tourism Task Group War of 1812 Bicentennial Steering Committee	Meeting Transcript (ML090440586)	0058
Micka, Richard	Experiential Tourism Task Group War of 1812 Bicentennial Steering Committee	Meeting Transcript (ML090440588)	0059
Miller, Anna	U.S. Environmental Protection Agency, Region 5	E-mail (ML090401019)	0040
Mitchell, Rita		E-mail (ML090401017)	0039
Morris, Bill		Meeting Transcript (ML090440586)	0058
Morris, Bill		Meeting Transcript (ML090440588)	0059

Table 1. (contd)

Commenter	Affiliation (if given)	Comment Source and ADAMS Accession Number	Comment Document ID Number
Morris, William P.	Monroe County Industrial Development Corporation	Written Materials from Afternoon Scoping Meeting (ML090440585)	0082
Mumaw, Joan	Sisters, Servants of the Immaculate Heart of Mary	Meeting Transcript (ML090440588)	0059
Mumaw, Joan	Sisters, Servants of the Immaculate Heart of Mary	Written Materials from Evening Scoping Meeting (ML090480683)	0083
Nash, Sarah		E-mail (ML090401013)	0036
Nett, Ann C.		E-mail (ML090401011)	0034
Newman, Kent		E-mail (ML090120581)	0007
Newnan, Hal		Meeting Transcript (ML090440586)	0058
Nixon, Dave	Monroe County Community College	Meeting Transcript (ML090440588)	0059
Nordness, Dorothy		E-mail (ML090410095)	0053
Oberleiter, Tracy	Monroe County Economic Development Corporation	Written Materials from Afternoon Scoping Meeting (ML090440585)	0082
Oberleiter, Tracy	Monroe County Economic Development Corporation	Meeting Transcript (ML090440586)	0058
Oberleiter, Tracy	Monroe County Economic Development Corporation	Meeting Transcript (ML090440588)	0059
Patterson, John	Monroe County Convention and Tourism Bureau	E-mail (ML090230104)	0012
Petrak, Genevieve	Sisters, Servants of the Immaculate Heart of Mary	Letter (ML090440088)	0060
Pfeiffer, Jelica B.		Letter (ML0906504661)	0078
Pfeiffer, Jelica B.		Meeting Transcript (ML090440586)	0058
Pitoniak, Gregory	Southeast Michigan Community Alliance	Meeting Transcript (ML090440588)	0059
Pitoniak, Gregory	Southeast Michigan Community Alliance	Written Materials from Evening Scoping Meeting (ML090480683)	0083
Rabaut, Martha		E-mail (ML090350435)	0022
Richmond, Roberta	Sisters, Servants of the Immaculate Heart of Mary	Letter (ML090440089)	0061
Richters, Karina	City of Windsor	E-mail (ML090410074)	0049

Table 1. (contd)

Commenter	Affiliation (if given)	Comment Source and ADAMS Accession Number	Comment Document ID Number
Ripple, Florence		Letter (ML0906504651)	0076
Ripple, John		Letter (ML090440200)	0073
Rivera, Gloria		E-mail (ML090291091)	0016
Ryan, Janet	Sisters, Servants of the Immaculate Heart of Mary	Letter (ML0906504681)	0081
Rysztak, Robert		E-mail (ML090401009)	0032
Rysztak, Robert		E-mail (ML0904021008)	0031
Sanchez, Mira		E-mail (ML090230106)	0013
Sargent, Lori	Michigan Department of Natural Resources	E-mail (ML090401014)	0037
Sargent, Lori	Michigan Department of Natural Resources	Letter (ML090750975)	0086
Schemanski, Sally		E-mail (ML090340437)	0019
Schwartz, R.		E-mail (ML090020433)	0002
Scobie, Randall		Letter (ML090440201)	0074
Seubert, Nancy	Sisters, Servants of the Immaculate Heart of Mary	Meeting Transcript (ML090440586)	0058
Seubert, Nancy	Sisters, Servants of the Immaculate Heart of Mary	Written Materials from Evening Scoping Meeting (ML090480683)	0083
Shiffler, Nancy L.		E-mail (ML090401005)	0028
Shumaker, John		E-mail (ML090401018)	0056
Simonton, Aaron	The Monroe Center for Healthy Aging	E-mail (ML090120579)	0005
Simpson, Robert		Meeting Transcript (ML090440586)	0058
Smolinski, Myron		Meeting Transcript (ML090440586)	0058
Spencer, Dr. Donald A.	Monroe County Intermediate School District	Written Materials from Afternoon Scoping Meeting (ML090440585)	0082
Spencer, Dr. Donald A.	Monroe County Intermediate School District	Meeting Transcript (ML090440586)	0058
Stock, Ed & Kim		E-mail (ML090230105)	0011
Stone, Paula	CASEnergy Coalition	E-mail (ML090410069)	0046

Table 1. (contd)

Commenter	Affiliation (if given)	Comment Source and ADAMS Accession Number	Comment Document ID Number
Sweat, Ron	Plumbers and Pipefitters, Local 671	Written Materials from Afternoon Scoping Meeting (ML090440585)	0082
Sweat, Ron	Plumbers and Pipefitters, Local 671	Meeting Transcript (ML090440586)	0058
Sweat, Ron	Plumbers and Pipefitters, Local 671	Meeting Transcript (ML090440588)	0059
Tigay, Barry	Oakland Psychological Clinic, P.C.	E-mail (ML090140205)	0009
Timmer, Marilyn		Letter (ML090440199)	0072
Tinnirello, Nicole		Letter (ML090440086)	0066
Van Ooteghem, Rose Bernadette		E-mail (ML090401000)	0025
Vaughn, Charlene Dwin	Advisory Council on Historic Preservation	E-mail (ML090410060)	0044
Vitale, Fred		E-mail (ML090401012)	0035
Walby, Charlotte		Letter (ML090440195)	0068
Walker, Joseph		E-mail (ML083640037)	0003
Weber, Margaret	Adrian Dominican Sisters	Written Materials from Afternoon Scoping Meeting (ML090440585)	0082
Weber, Margaret	Adrian Dominican Sisters	Meeting Transcript (ML090440586)	0058
Westlake, Kenneth A.	Office of Enforcement and Compliance Assistance, U.S. EPA Region 5	Letter (ML0906504671)	0080
White, Greg	Michigan Department of Energy, Labor and Economic Growth	Meeting Transcript (ML090440586)	0058
Wolfe, Janet		Meeting Transcript (ML090440588)	0059
Wolfe, Janet		Written Materials from Evening Scoping Meeting (ML090480683)	0083
Wolfe, Robert		Meeting Transcript (ML090440588)	0059
Worrell, Mark	City of Monroe	Meeting Transcript (ML090440586)	0058
Yascolt, Stas		Meeting Transcript (ML090440586)	0058

Table 1. (contd)

Commenter	Affiliation (if given)	Comment Source and ADAMS Accession Number	Comment Document ID Number
Zorn, Dale		Meeting Transcript (ML090440588)	0059

(a) Only one name provided in e-mail.

(b) Name on comment form not legible.

Table 2. Comment Categories, Commenters, and Comment ID Numbers

Comment Category	Commenter (Comment ID)
Accidents – Design Basis	• Meyer, Richard (0058-125) • Ryan, Janet (0081-2)
Accidents – Severe	• Barnes, Kathryn (0059-13; 0083-23) • Kamps, Kevin (0050-3; 0050-8; 0058-71) • Newnan, Hal (0058-81) • Sanchez, Mira (0013-2) • Timmer, Marilyn (0072-2)
Alternatives – Energy	• Askwith, Annemarie (0027-2) • Barnes, Kathryn (0059-20; 0083-34) • Bettega, Gayle (0047-7) • Campana, Jean Ann (0075-1) • Conner, Mary V. (0030-2) • Cumbow, Kay (0058-25) • D'Amour, James Carl (0038-1) • Davis, Gary (0064-2) • Edwards, Gordon (0048-9) • Farris, Mark (0059-67) • Henige, Ann (0059-40; 0083-10) • Henige, Margaret Ann (0062-2) • Kamps, Kevin (0050-24; 0050-25; 0059-74; 0059-76) • Karas, Josephine (0070-4) • Keith, Fred (0058-139) • Lodge, Terry (0058-115) • Mantai, Frank (0059-24) • May, Ron (0058-4; 0058-6; 0059-36) • McArdle, Ed (0058-103) • Meyer, Richard (0058-128) • Mitchell, Rita (0039-4; 0039-7) • Nett, Ann C. (0034-4) • Newman, Kent (0007-3) • Newnan, Hal (0058-85) • Pfeiffer, Jelica B. (0058-31) • Rivera, Gloria (0016-4) • Rysztak, Robert (0031-7; 0032-2) • Schwartz, R. (0002-2) • Shiffler, Nancy L. (0028-4) • Simpson, Robert (0058-41) • Sweat, Ron (0058-145; 0059-31; 0082-6) • Tinnirello, Nicole (0066-2; 0066-4) • Vitale, Fred (0035-2) • White, Greg (0058-64) • Wolfe, Janet (0059-53; 0083-6) • Wolfe, Robert (0059-57)
Alternatives – Sites	• Bihn, Sandy (0058-56; 0082-25)

Table 2. (contd)

Comment Category	Commenter (Comment ID)
Benefit-Cost Balance	• Richa (0006-1) • Askwith, Annemarie (0027-3) • B., M. J. (0082-40) • Barnes, Kathryn (0059-19; 0083-33) • Carey, Corinne (0004-8) • Davis, Gary (0064-1) • Drake, Gerald A. (0054-4) • Edwards, Gordon (0048-1; 0048-2; 0048-7) • Englund, Lance (0041-2) • Farris, Mark (0059-66; 0059-69) • Fedorowicz, Meg (0052-1; 0052-3) • Fischer, Lydia (0058-89) • Henige, Margaret Ann (0062-1) • Holden, Anna (0058-98; 0058-102) • Kamps, Kevin (0050-23; 0059-73) • Karas, Josephine (0070-2) • Keegan, Michael (0058-63) • Mahoney, Charlie (0010-5) • Mantai, Frank (0083-36) • McGuire, Jim (0058-136) • Meyer, Richard (0058-130) • Nett, Ann C. (0034-3) • Nordness, Dorothy (0053-5; 0053-6) • Pfeiffer, Jelica B. (0058-30) • Pitoniak, Gregory (0083-21) • Schemanski, Sally (0019-10) • Seubert, Nancy (0058-18; 0083-35) • Tinnirello, Nicole (0066-1) • Weber, Margaret (0058-69; 0082-35) • Wolfe, Janet (0059-47; 0059-52; 0059-54; 0083-1; 0083-7) • Wolfe, Robert (0059-59) • Yascolt, Stas (0058-32)
Cumulative Impacts	• Askwith, Annemarie (0027-1) • Bihn, Sandy (0058-46; 0058-49; 0058-50; 0058-51; 0058-55; 0058-58; 0082-13; 0082-15; 0082-17; 0082-24) • Carey, Corinne (0004-9) • Freiburger, Chris (0029-6) • Guthrie, Patricia (0055-3) • Kamps, Kevin (0050-12; 0050-14; 0050-19) • Leonard, Dolores (0017-2) • May, Ron (0059-35) • Mumaw, Joan (0059-42; 0083-9) • Newman, Kent (0007-1; 0007-2) • Schemanski, Sally (0019-6) • Shiffler, Nancy L. (0028-1; 0028-3)

Table 2. (contd)

Comment Category	Commenter (Comment ID)
Ecology – Aquatic	• Barnes, Kathryn (0059-16; 0083-31) • Bihn, Sandy (0058-45; 0058-47; 0058-48; 0058-52; 0058-54; 0082-10; 0082-12; 0082-20; 0082-21; 0082-23) • Colligan, Mary A. (0085-1; 0085-2; 0085-3) • Cumbow, Kay (0058-27) • D'Amour, James Carl (0038-2) • Englund, Lance (0041-4) • Freiburger, Chris (0029-1; 0029-3; 0029-4; 0029-5) • Hungerman, Marie Gabriel (0024-1) • Kamps, Kevin (0050-15; 0050-17; 0050-21) • McArdle, Ed (0058-109) • Mitchell, Rita (0039-6) • Schemanski, Sally (0019-5) • Wolfe, Janet (0059-49; 0083-3)
Ecology – Terrestrial	• Browne, Elizabeth M. (0079-3; 0079-5) • Czarnecki, Craig A. (0087-1; 0087-2; 0087-3; 0087-4) • Freiburger, Chris (0029-8; 0029-9; 0029-11) • Gruelle, Martha (0082-1) • May, Ron (0058-10) • Micka, Jeanne (0058-123; 0082-26) • Micka, Richard (0082-28) • Miller, Anna (0040-2) • Sargent, Lori (0037-1; 0086-1) • Westlake, Kenneth A. (0080-2)
Geology	• Miller, Anna (0040-3) • Westlake, Kenneth A. (0080-3)
Health – Nonradiological	• Cumbow, Kay (0051-5)
Health – Radiological	• Anderson, Alan (0058-86) • Barnes, Kathryn (0059-12; 0059-18; 0083-22) • Bell, Mary Faith (0063-1) • Bettega, Gayle (0047-5) • Cumbow, Kay (0051-7; 0058-19; 0058-22; 0058-24) • Diederichs, Dorothy (0065-1) • Drake, Gerald A. (0054-3) • Duggan, Marion (0067-1) • Guthrie, Patricia (0055-1; 0055-2) • Kamps, Kevin (0050-6; 0050-7; 0050-9; 0050-11; 0050-13; 0050-16) • Karas, Josephine (0070-3) • Keegan, Michael (0059-64) • Lawson, Ph.D., Charles (0015-2; 0071-2) • Mangano, Joseph (0084-1) • McArdle, Ed (0058-106) • Meyers, Marcie (0059-88) • Mitchell, Rita (0039-2) • Mumaw, Joan (0059-41; 0059-43; 0083-8; 0083-13; 0083-14)

Table 2. (contd)

Comment Category	Commenter (Comment ID)
	• Nash, Sarah (0036-1) • Nett, Ann C. (0034-2) • Petrak, Genevieve (0060-1) • Pfeiffer, Jelica B. (0058-28; 0058-29; 0078-1) • Ryan, Janet (0081-1; 0081-4) • Rysztak, Robert (0031-5; 0032-3; 0032-4; 0032-5) • Schemanski, Sally (0019-3; 0019-8) • Simpson, Robert (0058-40) • Walby, Charlotte (0068-1) • Wolfe, Janet (0059-48; 0083-2) • Wolfe, Robert (0059-58) • Yascolt, Stas (0058-34; 0058-35; 0058-36; 0058-37)
Historic and Cultural Resources	• Micka, Richard (0082-29; 0082-32) • Vaughn, Charlene Dwin (0044-1)
Hydrology – Groundwater	• Barnes, Kathryn (0059-17; 0083-32)
Hydrology – Surface Water	• Bihn, Sandy (0058-53; 0082-11; 0082-14; 0082-18; 0082-19; 0082-22) • Browne, Elizabeth M. (0079-2; 0079-4) • Cumbow, Kay (0058-26) • Dyson, Ed (0058-134) • Freiburger, Chris (0029-2; 0029-7) • Holden, Anna (0058-100) • Kamps, Kevin (0050-18; 0050-20) • Kaufman, Hedwig (0083-30) • McArdle, Ed (0058-108; 0058-110) • Rivera, Gloria (0016-3) • Rysztak, Robert (0031-4) • Schemanski, Sally (0019-4) • Shiffler, Nancy L. (0028-2) • Weber, Margaret (0058-68; 0082-34)
Land Use – Site and Vicinity	• Browne, Elizabeth M. (0079-1) • Ingels, Mike (0059-80) • Micka, Richard (0058-124; 0059-87; 0082-27; 0082-30; 0082-31)
Meteorology and Air Quality	• Edwards, Gordon (0048-3) • Lavelline, Joe (0058-120) • McArdle, Ed (0058-107) • Mitchell, Rita (0039-3)
Need for Power	• Fischer, Lydia (0058-90) • Holden, Anna (0058-97) • Keith, Fred (0058-138) • Mahoney, Charlie (0010-3) • May, Ron (0058-5; 0059-34; 0059-39) • McGuire, Jim (0058-135)

Table 2. (contd)

Comment Category	Commenter (Comment ID)
	• Mentel, Floreine (0058-13; 0059-5) • Newnan, Hal (0058-84) • Nordness, Dorothy (0053-1) • Pitoniak, Gregory (0083-19) • Simpson, Robert (0058-42) • White, Greg (0058-65) • Wolfe, Robert (0059-56) • Worrell, Mark (0058-95)
Opposition – Licensing Action	• Barnes, Kathryn (0059-22; 0083-25) • Bettega, Gayle (0047-1) • Bihn, Sandy (0058-57) • Carey, Corinne (0004-1) • Drake, Gerald A. (0054-6) • Englund, Lance (0041-1; 0041-7) • Kamps, Kevin (0050-1) • Karas, Josephine (0070-1) • Mechtenberg, Marilynn (0023-4) • Mitchell, Rita (0039-1) • Nett, Ann C. (0034-1) • Newnan, Hal (0058-80; 0058-83) • Nordness, Dorothy (0053-7) • Rivera, Gloria (0016-1) • Rysztak, Robert (0031-1; 0031-6; 0032-1; 0032-8) • Shumaker, John (0056-1) • Tinnirello, Nicole (0066-3) • Vitale, Fred (0035-1) • Walker, Joseph (0003-1) • Wolfe, Robert (0059-61) • Yascolt, Stas (0058-39)
Opposition – Licensing Process	• Kamps, Kevin (0059-78) • Keegan, Michael (0059-63)
Opposition – Nuclear Power	• Barnes, Kathryn (0059-14; 0083-24) • Bettega, Gayle (0047-6) • Biernot, Marilyn (0020-1) • Carey, Corinne (0004-2) • Edwards, Gordon (0048-10) • Farris, Mark (0059-70) • Pfeiffer, Jelica B. (0078-2) • Rysztak, Robert (0031-2) • Schemanski, Sally (0019-1; 0019-11)
Opposition – Existing Plant	• Drake, Gerald A. (0054-1) • Leonard, Dolores (0017-1; 0017-4) • Wolfe, Robert (0059-55)

Table 2. (contd)

Comment Category	Commenter (Comment ID)
Outside Scope – Emergency Preparedness	• Baker, Mildred M (0026-1) • Englund, Lance (0041-5) • Kamps, Kevin (0050-5) • Kaufman, Hedi (0042-1; 0042-2; 0042-3; 0083-28) • Zorn, Dale (0059-3)
Outside Scope – Miscellaneous	• Edwards, Gordon (0048-4) • May, Ron (0058-8) • Nixon, Dave (0059-72) • Worrell, Mark (0058-96)
Outside Scope-NRC Oversight	• Carey, Corinne (0004-3) • Green, Frank (0059-83) • Mumaw, Joan (0083-17) • Timmer, Marilyn (0072-4)
Outside Scope – Safety	• Freiburger, Chris (0029-10) • Cumbow, Kay (0051-4) • Mantai, Frank (0059-25) • Nordness, Dorothy (0053-2; 0053-3) • Wolfe, Janet (0059-50; 0083-4) • Timmer, Marilyn (0072-3) • Worrell, Mark (0058-93)
Outside Scope – Security and Terrorism	• Barnes, Kathryn (0059-15; 0083-25) • Bettega, Gayle (0047-3) • Bihn, Sandy (0082-16) • Dyson, Ed (0058-133) • Edwards, Gordon (0048-8) • Kamps, Kevin (0050-4) • Kaufman, Hedwig (0059-45) • Schwartz, R. (0002-1) • Wolfe, Robert (0059-60)
Process – COL	• Browne, Elizabeth M. (0079-6) • Carey, Corinne (0004-4; 0004-5; 0004-10) • Cumbow, Kay (0051-1; 0051-8; 0058-23) • D'Amour, James Carl (0038-4) • Fischer, Lydia (0058-87) • Hart, Donna (0021-2) • Kamps & Keegan, Kevin and Michael (0084-2) • Kamps, Kevin (0050-22; 0057-2) • Kaufman, Hedi (0083-26) • Keegan, Michael (0058-62) • Leonard, Dolores (0017-3) • Lodge, Terry (0058-117; 0058-118; 0082-37) • May, Ron (0058-3; 0058-7; 0058-9; 0058-11; 0059-38) • McArdle, Ed (0058-105) • Meyer, Richard (0058-132) • Rysztak, Robert (0032-7)

Table 2. (contd)

Comment Category	Commenter (Comment ID)
	• Shiffler, Nancy L. (0028-5) • Spencer, Dr. Donald A. (0058-59) • Stock, Ed & Kim (0011-2)
Process – NEPA	• Askwith, Annemarie (0027-4) • Carey, Corinne (0004-7) • Cumbow, Kay (0051-2; 0051-3; 0058-20) • Fischer, Lydia (0058-88) • Kamps, Kevin (0057-1) • Kaufman, Hedi (0083-29) • Keegan, Michael (0058-61; 0059-62) • Lawson, Ph.D., Charles (0015-1; 0071-1) • Lodge, Terry (0045-1; 0045-2; 0045-3; 0045-4; 0058-116) • Miller, Anna (0040-1; 0040-4) • Richters, Karina (0049-1) • Simpson, Robert (0058-43) • Stock, Ed & Kim (0011-1) • Westlake, Kenneth A. (0080-1; 0080-4)
Socioeconomics	• Brown, George (0058-2) • Ellison, Jacob (0058-112) • Englund, Lance (0041-6) • Ingels, Mike (0059-79; 0059-81) • Kamps, Kevin (0059-75) • Mahoney, Charlie (0010-2; 0010-4) • McArdle, Ed (0058-104) • Mentel, Floreine (0058-15; 0058-16; 0059-7) • Morris, William P. (0082-36) • Oberleiter, Tracy (0082-42) • Pitoniak, Gregory (0059-23; 0083-18; 0083-20) • Scobie, Randall (0074-1) • Smolinski, Myron (0058-113) • Sweat, Ron (0058-146; 0059-32) • Zorn, Dale (0059-1)
Support – Licensing Action	• Anderson, Alan (0058-79) • Cappuccilli, Al (0082-38) • Carroll, Connie (0058-44; 0059-82) • Keith, Fred (0058-141) • Lavelline, Joe (0058-119; 0058-122; 0059-84; 0059-86; 0083-11; 0083-15) • Marks, Esq., D.Min, Bertram (0014-2) • May, Ron (0059-37) • McGuire, Jim (0058-137) • Mentel, Floreine (0058-12) • Meyer, Richard (0058-131) • Morris, Bill (0058-78; 0059-11) • Oberleiter, Tracy (0058-76; 0059-26; 0082-39) • Patterson, John (0012-1) • Simonton, Aaron (0005-1)

Table 2. (contd)

Comment Category	Commenter (Comment ID)
	• Smolinski, Myron (0058-114) • Spencer, Dr. Donald A. (0082-9) • Sweat, Ron (0059-33; 0082-7) • Tigay, Barry (0009-1) • Worrell, Mark (0058-94)
Support – Licensing Process	• Morris, Bill (0059-10) • White, Greg (0058-66)
Support – Nuclear Power	• Fulara, Dan (0059-71) • Keith, Fred (0058-140) • Lavelline, Joe (0058-121; 0059-85; 0083-12) • Marks, Esq., D.Min, Bertram (0014-1) • Mentel, Floreine (0058-14; 0059-6) • Meyer, Richard (0058-129) • Stone, Paula (0046-1) • Sweat, Ron (0058-143; 0059-29; 0082-4)
Support – Existing Plant	• Brown, George (0058-1) • Ellison, Jacob (0058-111) • Gruelle, Martha (0082-2) • Hesson, Gerald (0058-147) • Mahoney, Charlie (0010-1) • Mentel, Floreine (0058-17; 0059-4; 0059-8) • Meyer, Richard (0058-127) • Morris, Bill (0059-9) • Oberleiter, Tracy (0058-77; 0059-27) • Simonton, Aaron (0005-2) • Spencer, Dr. Donald A. (0058-60; 0082-8) • Sweat, Ron (0058-142; 0058-144; 0059-28; 0059-30; 0082-3; 0082-5) • Zorn, Dale (0059-2)
Transportation	• Mechtenberg, Marilynn (0023-2)
Uranium Fuel Cycle	• Barnes, Kathryn (0059-21) • Bettega, Gayle (0047-2; 0047-4) • Carey, Corinne (0004-6) • Conner, Mary V. (0030-1) • Cumbow, Kay (0051-6; 0058-21) • D'Amour, James Carl (0038-3) • Drake, Gerald A. (0054-2; 0054-5) • Eddy, Dorothy (0069-1) • Edwards, Gordon (0048-5; 0048-6) • Englund, Lance (0041-3) • Farris, Mark (0059-68) • Fedorowicz, Meg (0052-2; 0052-4) • Feldpausch, Larry (0058-91; 0058-92) • Feldpausch, Regina A. (0077-1) • Hart, Donna (0021-1)

Table 2. (contd)

Comment Category	Commenter (Comment ID)
	• Holden, Anna (0058-99; 0058-101) • Kamps, Kevin (0050-2; 0050-10; 0058-70; 0058-72; 0058-73; 0058-74; 0058-75; 0059-77) • Kaufman, Hedi (0083-27) • Kaufman, Hedwig (0059-44; 0059-46) • Keegan, Michael (0059-65) • Mechtenberg, Marilynn (0023-1; 0023-3) • Meyer, Richard (0058-126) • Mitchell, Rita (0039-5) • Newnan, Hal (0058-82) • Nordness, Dorothy (0053-4) • Rabaut, Martha (0022-1) • Richmond, Roberta (0061-1) • Ripple, Florence (0076-1) • Ripple, John (0073-1) • Rivera, Gloria (0016-2) • Ryan, Janet (0081-3) • Rysztak, Robert (0031-3; 0032-6) • Sanchez, Mira (0013-1) • Schemanski, Sally (0019-2; 0019-7; 0019-9) • Timmer, Marilyn (0072-1) • Van Ooteghem, Rose Bernadette (0025-1) • Weber, Margaret (0058-67; 0082-33) • Wolfe, Janet (0059-51; 0083-5) • Yascolt, Stas (0058-33; 0058-38)

Table 3. Section Numbers and Comment Categories as Presented in this Report

2.1	Comments Concerning Process – COL
2.2	Comments Concerning Process – NEPA
2.3	Comments Concerning Land Use – Site and Vicinity
2.4	Comments Concerning Meteorology and Air Quality
2.5	Comments Concerning Geology
2.6	Comments Concerning Hydrology – Surface Water
2.7	Comments Concerning Hydrology – Groundwater
2.8	Comments Concerning Ecology – Terrestrial
2.9	Comments Concerning Ecology – Aquatic
2.10	Comments Concerning Socioeconomics
2.11	Comments Concerning Historic and Cultural Resources
2.12	Comments Concerning Health – Nonradiological
2.13	Comments Concerning Health – Radiological
2.14	Comments Concerning Accidents – Design Basis
2.15	Comments Concerning Accidents – Severe
2.16	Comments Concerning the Uranium Fuel Cycle
2.17	Comments Concerning Transportation
2.18	Comments Concerning Cumulative Impacts
2.19	Comments Concerning the Need for Power
2.20	Comments Concerning Alternatives – Energy
2.21	Comments Concerning Alternatives – Sites
2.22	Comments Concerning Benefit-Cost Balance
2.23	General Comments in Support of the Licensing Action
2.24	General Comments in Support of the Licensing Process
2.25	General Comments in Support of Nuclear Power
2.26	General Comments in Support of the Existing Plant
2.27	General Comments in Opposition of the Licensing Action
2.28	General Comments in Opposition to the Licensing Process
2.29	General Comments in Opposition to Nuclear Power
2.30	General Comments in Opposition of the Existing Plant
2.31	Comments Concerning Issues Outside Scope – Emergency Preparedness
2.32	Comments Concerning Issues Outside Scope – Miscellaneous
2.33	Comments Concerning Issues Outside Scope – NRC Oversight
2.34	Comments Concerning Issues Outside Scope – Safety
2.35	Comments Concerning Issues Outside Scope – Security and Terrorism

2. Public Scoping Comments and Responses

The comments and suggestions received as part of the scoping process are summarized and discussed below. Parenthetical numbers after each comment refer to the Comment Identification (ID) number (document number-comment number) and the commenter name. Comments are grouped by category.

The draft Environmental Impact Statement (EIS) will take into account the relevant issues raised during the scoping process, and it will be made available for public comment.

The comment period for the draft EIS will offer the next opportunity for Detroit Edison; interested Federal, Tribal, State, and local government agencies; local organizations; and members of the public to provide input to the NRC's environmental review process. The comments received on the draft EIS will be considered in the preparation of the final EIS. The final EIS, along with the staff's Safety Evaluation Report, will be considered in NRC's decision on Detroit Edison's combined license (COL) application for Fermi 3.

2.1 Comments Concerning Process – COL

Comment: Please advise me how the Nuclear Regular Commission intends to move on this possibility. Who will be involved in the decision? Will the local community have a voice? (**0021-2** [Hart, Donna])

Response: *The licensing process for COL applications is specified in Title 10 of the Code of Federal Regulations (10 CFR) Part 52. The process includes a detailed review by the NRC of an applicant's COL application to determine the safety and environmental effects of construction and operation of a nuclear power facility. After review of the application against the regulations, a hearing will be conducted to determine whether it is appropriate to issue the license. Both safety issues and environmental issues will be evaluated before a decision on an application is reached. As described in the regulations, based on the finding of its review, NRC can deny issuance of a license if it would not meet the regulatory requirements.*

Public involvement and comments are invited and encouraged throughout the environmental review of major Federal actions; the issuance of a COL would be a major Federal action and, therefore, requires the development of an EIS. NRC formally solicits both written and oral comments from members of the public at two different times during the environmental review, at the beginning of the process during environmental scoping for the EIS and when the draft EIS is issued.

Comment: Finally, you've heard about the application that we put in. We spent a couple of years on it. It's now going through the process. We're very comfortable with where we are, and we feel that it would be an important step to really search through this application process and ensure that we're on the right track. (**0058-11** [May, Ron])

Comment: You're aware that we filed a combined license application for Fermi 3 in September. You just heard that. And we also think that today's hearing is not only an important milestone for that licensing process, but it also provides us, with you as our neighbors, many of you as our customers, gives you an opportunity to influence the way we're thinking about this, but also the way your community is shaping up. And we don't take that lightly. We know the NRC is very

interested in your comments, but we are as well.

I would also like to make it clear that this is a process for us. So we haven't decided to build a nuclear power plant. We decided to put a license in for that building if eventually we decide to. And, why would we do that? (**0058-3** [May, Ron])

Comment: But it won't take care of the day when the wind doesn't blow or the sun doesn't shine; and what do we want to have that next power be? And we're thinking that we should not avoid looking hard at a nuclear power plant. And there's no good way to do that, in my feeling, and I think our company as well, without actually going through the process. So we really feel comfortable with the fact that we put our application in. We're in the game, but we haven't committed yet to build. (**0058-7** [May, Ron])

Comment: And I would say overall we're looking at a GE plant, not a plant from France. We are looking at a company called Detroit Edison to own and operate this plant. We did not put an application in for loan guarantees, so there's nothing out there currently that would say that we're trying to do something in some sort of way that would obligate future generation, or some of the statements around other taxpayers. (**0059-38** [May, Ron])

Response: *The comments are general in nature and outline Detroit Edison's plans for the project; the comments do not provide new information relating to environmental effects of the proposed action, and will not be evaluated in the EIS.*

Comment: Although no other MDEQ divisions have' comments on this project at this time, we recommend that the NRC and DEC maintain communications with the appropriate MDEQ staff throughout the planning, permitting, and development processes. The LWMD will be in contact with those divisions, as well as coordinating with the Michigan Department of Natural Resources (MDNR) on their fisheries and wildlife comments and the U.S. Army Corps of Engineers, as this project progresses. Based on our preliminary review of potential impacts to rare resources on the site, the LWMD may have significant concerns about this project. We recommend that DEC schedule a pre-application meeting with us as soon as possible. The pre-application form can be found under Information at www.michigan.gov/deqwetlands. (**0079-6** [Browne, Elizabeth M.])

Response: *In developing the EIS, the NRC staff will interact with Federal and State agencies, including the Michigan Department of Environmental Quality, Michigan Department of Natural Resources, and others, to obtain information relevant to the environmental review.*

Comment: Where do you follow the standards of the International Joint Commission, by irrefutable Treaty applicable to our precious Great Lakes and Fermi's location on Lake Erie? (**0004-4** [Carey, Corinne])

Response: *In developing the EIS, the NRC staff will interact with Federal and State agencies, as well as the International Joint Commission (IJC), to obtain information relevant to the environmental review. In fact, the NRC staff specifically solicited scoping comments from the IJC, and the IJC provided comments that will be considered as NRC's environmental review proceeds.*

Comment: Where do you respect and include testimony and hearings with the many highly expert scientists and organizations such as NIRS and NEIS and Sierra, etc. etc. etc.? (**0004-5** [Carey, Corinne])

Response: *The NRC staff prepares an EIS in accordance with the requirements of NEPA, 10 CFR Part 52, and 10 CFR Part 51. In its review, the NRC staff focuses on the environmental effects of construction and operation of a new reactor. The staff's review is based on information presented in the COL application Environmental Report (ER) submitted by the applicant and information obtained from independent sources. During the scoping process, interested organizations and the public are invited to participate by submitting comments. The information presented in the applicant's ER is open for comment during the scoping process. If a member of the public is aware of something missing from the ER, or if other information is available that the NRC staff needs to be aware of for its review, the NRC staff is interested in obtaining that information during the scoping process so that it may be considered.*

Comment: Until, and IF ever, NRC processes act in the necessary far more scientific way, you and those processes regarding nuclear uses are to be held highly suspect and rejected for the sake of we, the living, and our grandchildren, and theirs... (**0004-10** [Carey, Corinne])

Comment: I contend it is on these environmental issues alone that the NRC should discontinue further review of DTE Energy's applications for construction of a new facility until these matters are resolved. (**0038-4** [D'Amour, James Carl])

Response: *These comments provide general information in opposition to NRC's COL process and will not be evaluated further. The NRC staff will carefully review the application against its regulations that are intended to protect public health and safety and the environment.*

Comment: Why the rush? Money? Why not wait to see what programs President Obama can implement with wind and solar? Both are probably less expensive, less harm to human and animals alike. There is a thinking these days about renewable energy and energy efficiency. (**0017-3** [Leonard, Dolores])

Comment: Since we can't get rid of the waste of Fermi 1&2, why is Fermi 3 being rushed into as the way to go? (**0032-7** [Rysztak, Robert])

Comment: There are two comment periods right now going on, both on emissions and influence from nuclear power plants. Both of them encompassed the Thanksgiving holiday and the Christmas holiday, and they all come before the Obama administration can be involved in setting those standards. (**0058-23** [Cumbow, Kay])

Response: *As an independent executive agency accountable to Congress, NRC has a timely obligation to initiate the review in response to a COL application as long as the application is considered by the NRC staff to be technically sufficient and complete. Decisions regarding which generation sources and alternatives to deploy are made by the applicant and regulatory bodies such as State energy planning agencies. The alternatives must be technically viable, feasible, and competitive. Alternative actions such as the no-action alternative (energy efficiency and demand-side management), new generation alternatives, purchased electrical power, alternative technologies (including renewable energy such as wind and solar), and the combination of alternatives will be considered in Chapter 9 of the EIS.*

Comment: There are many other critical issues, that need to be addressed and cannot be addressed in this short time period. (**0051-8** [Cumbow, Kay])

Response: *The licensing process for COL applications is specified in 10 CFR Part 52; it will take several years to complete. The process includes a detailed review of an applicant's COL*

application to determine the environmental effects of construction and operation of a nuclear power facility. After review of the application against the regulations and regulatory guidance, a hearing will be conducted to determine whether it is appropriate to grant the license. Safety issues as well as environmental issues will be evaluated before a decision on an application is reached. As described in the regulations, based on the finding of its review, NRC can deny issuance of a license if it would not meet the regulatory requirements.

Comment: I just want to really encourage DTE and the NRC to employ a deliberative process that will ensure that Fermi 3, if it is built, is safe and a clean alternative for its users, and I believe that it can be. (**0058-59** [Spencer, Dr. Donald A.])

Response: *This comment provides general information in support of NRC's COL process and will not be evaluated further. NRC will carefully review the application against its regulations that are intended to protect public health and safety and the environment.*

Comment: The procedure is premature because the Nuclear Regulatory Commission has not yet approved the design of the reactor that Detroit Edison said it intends to order. That is the GE-Hitachi Economic Simplified Boiling Water Reactor. The design has been abandoned by several other utilities and isn't yet certified by federal officials. It does not make sense to make comments on a reactor design which does not exist. If in fact design has been abandoned by several other utilities and isn't yet certified by federal officials, which new plant design will be chosen? (**0011-2** [Stock, Ed & Kim])

Comment: The application proposes the use of an Economic Simplified Boiling Water Reactor (ESBWR), a design which is not yet complete and which has not yet been certified by the NRC.

Five other proposed uses of this design around the country have been cancelled, and the Department of Energy has indicated that this design will not receive any of the nuclear loan guarantee funding already approved by Congress.

DTE will inevitably have to withdraw this design and resubmit the application, making this current process a waste of time and taxpayer money. (**0028-5** [Shiffler, Nancy L.])

Comment: DTE's proposed Economically Simplified Boiling Water Reactor (ESBWR) design is woefully incomplete, and thus the current NRC licensing proceeding is premature. Hundreds of thorny technical questions have yet to be answered, and no date certain has been established for final NRC certification. The two largest nuclear power utilities in the U.S., Exelon of Chicago and Entergy of New Orleans, have cancelled four ESBWRs due to the design's uncertain status. It is absurd for the concerned public to be asked to comment on the environmental impacts of a proposed reactor design that does not yet exist. This proceeding should be suspended until the ESBWR design is finalized and NRC-certified. (**0050-22** [Kamps, Kevin])

Comment: I ask that the NRC's review of the Environmental Report be suspended until a reactor is chosen that has a finalized design that citizens can actually critique. Simply stated, a reactor is the heart of a reactor project. The ESBWR does not have a finalized design nor is it certified or approved by the NRC. To shut the public out of the scoping process for the EIS for a reactor project before a reactor is chosen is saying that every reactor is alike, with the same risks. This and many of the reactors being chosen today are untried in the real world and the citizens are the guinea pigs, both financially and in the case of safety questions and the long-term protection of the ecosystem, as any serious accident or incident with a nuclear reactor could prove devastating to the Great Lakes and its inhabitants, whose lives are tied intimately to

the Great Lakes, for fisheries (a four billion dollar industry), drinking water, recreation, and tourism. (**0051-1** [Cumbow, Kay])

Comment: A compelling reason to grant the 120 day extension to the comment deadline is the fact that the ESBWR design is not yet certified by NRC. In fact, GE-Hitachi has yet to finish the design. There remain hundreds of unresolved technical issues. Thus, it is impossible for us to comment meaningfully on a design that is neither complete nor certified. Some nuclear utilities (Exelon, Entergy), in fact, have cancelled their involvement with the ESBWR design, given its incomplete status. It would be a violation of the public's good will and good faith to rush this Fermi 3 licensing proceeding only to have DTE Energy cancel its pursuit of the ESBWR design -- a not unlikely possibility, given recent developments -- for concerned citizens and environmental organizations would have participated in good faith, only to have their significant investment of time, work and resources wasted when DTE announces it has decided to cancel its ESBWR proposal.

For the reasons laid out above, and on behalf of our members in Michigan and Ohio, I request a 120 day extension to the environmental scoping deadline for public comments on Fermi 3. This would make much more possible meaningful public involvement by a much larger number of concerned citizens and environmental organizations. (**0057-2** [Kamps, Kevin])

Comment: The other problem I see, and I've provided a letter to the Nuclear Regulatory Commission today, is this problem of the economically simplified boiling water reactor design. The problem with it is that it doesn't exist. It has to undergo a formal rulemaking, which is just barely gotten off the ground, which is not anticipated to be completed before 2011, and yet you're being asked to comment on a boiling water reactor design that will be different in some major respects from existing reactor designs, that is not proven, that is not economically going to be sanctioned for taxpayer underwriting by the Department of Energy at any point in the near future; that in effect will not be finalized or certified, if indeed it is -- I understand the NRC staff has asked many, many dozens of very complex and intelligent questions. But it's a design that won't exist yet by March 9th, 2009. Public organizations and people who want to have a trial, contenting that there are problems with the idea of putting up a Fermi 3, have to have identified their experts, have to of identified their information and evidence to combat a design that they don't know for sure will be the ultimate design.

In this proceeding by early February, you are being asked to talk about environmental considerations for design that is neither approved nor is final. Without a fixed, certified, ESBWR design, public commentors in this ongoing NEPA proceeding, and the adjudicatory proceeding, of which it will ultimately be a part, can't meaningfully comment concerning operational prospects and associated environmental effects, accident scenarios, and the fallout, if you will, from those. Nor can they be afforded an understanding of the ongoing routine radiation emissions that come from all operating nuclear power plants. (**0058-117** [Lodge, Terry])

Comment: The public faces these deadlines to comment in this NEPA proceeding and to decide whether or not and how to join the issues by March 9th in the adjudicatory proceeding without knowing with any certainty even whether it will be an ESBWR. Any licensing efforts that are conducted by the NRC will, as a result, be riddled with doubts and conditions which will of course heighten the growing perception that the fix is in and that this process is, unfortunately, merely bread and circuses. (**0058-118** [Lodge, Terry])

Comment: This is all premature because we are asked to be making comment on a reactor design which does not exist. Recently there have been several revelations. There were six --

there were five utilities which chose to go with the economically simplified boiling water reactor. Five of those utilities have canceled those projects.

General Electric's Hitachi's Economic Simplified Boiling Water Reactor Design, proposed by DTE to be built as a new Fermi 3 reactor, has not even been completed, let alone certified by the U.S. NRC. The ESBWR has suffered many recent setbacks calling into serious question its viability.

November 24th, Exelon, the largest nuclear utility in the nation, canceled their facilities in Texas. Just this past Friday, Entergy and Dominion canceled the ESBWR as well. That leaves Detroit Edison standing alone as the only utility embracing this uncompleted design, which is not scheduled for review until mid 2011. So we are asked to be making comment, environmental comment, on a facility that doesn't even exist and has not been tested. So we need to go back to square one. This whole EIS scoping meeting is invalid because we do not have a valid reactor design which to challenge, which to address.

The ESBWR design has over 200 requests for additional information. There are many many unresolved problems. For Detroit Edison to pursue this utility, this design, they are putting the ratepayers and the taxpayers in great jeopardy. This is a design that is not going to come to fruition. Detroit Edison needs to come clean with it. What this meeting amounts to is a bait and switch. They will be aborting this design and choosing another, so this is all premature. (**0058-62** [Keegan, Michael])

Comment: I say no to Fermi 3 because recent news confirmed that this type of reactor, the ESBWR, has yet to be completed, making today's NRC hearing premature. This of course I am reiterating a point by a couple of people who spoke before me. The viability of this type of reactor is seriously in doubt. Out of the six such reactors that had been proposed to be built by different utilities in different states, five have been canceled, and only one, DTE, is proposing to build and its plans are left standing. Obviously there are serious doubts about the worthiness and viability of this design.

In fairness to the public and ratepayers, DTE should withdraw its application and NRC should suspend this proceeding until the ESBWR design has been certified, which will be no earlier than 2011, if ever.

That is the path chosen by the second largest nuclear generator in the US, Entergy, which on January 9 was the third utility to announce the cancellation of its ESBWR reactor proposal at each of two sites previously chosen. The truth seems to be that there are no nuclear reactors ready to install right now. (**0058-87** [Fischer, Lydia])

Comment: The other is the fact that that application that we've put in has chosen the ESBWR. It's one that like the other applications throughout the country, are looking to have their designs approved by the NRC. We are as well. And that's in flight. We won't get the license as we just heard, until after those designs are approved. (**0058-9** [May, Ron])

Comment: The Michigan Chapter of the Sierra Club, Beyond Nuclear, Citizens for Alternatives to Chemical Contamination, Citizens Resistance at Fermi 2, Coalition for a Nuclear-Free Great Lakes, Don't Waste Michigan, and Toledo Coalition for Safe Energy, along with several individual residents in the Monroe, Michigan area respectfully request that the U.S. Nuclear Regulatory Commission immediately suspends the current proceedings aimed and review and ultimately, approval of DTE Energy Company's combined construction and operating license

application ("COLA") for Fermi 3, a proposed new nuclear power plant near Monroe, Michigan.

These public organizations and citizens make this request to suspend the COLA adjudication for Fermi 3 pending the commencement and completion of the design certification rulemaking proceeding or the proposed Economically Simplified Boiling Water Reactor ("ESBWR") design on which DTE's COLA depends. We ask that the Commission repudiate a recent policy statement that would unlawfully remove the COLA's design-related contents from the scope of issues that may be challenged in the COLA adjudication and refer those issues to be resolved in a separate, parallel rulemaking proceeding to our knowledge has not been scheduled or commenced, the Policy Statement on the Conduct of New Reactor Licensing Proceedings, 72 Fed. Reg. 20 963 (April 17, 2008; 2008 Policy Statement). The 2008 Policy Statement -which is not enforceable law or regulation -should be ignored because it violates Section 189a of the Atomic Energy Act ("AEA"), as well as judicial precedents interpreting the AEA, and the NRC s Part 52 regulations for the conduct of licensing proceedings on COLAs. Pacific Gas & Electric Co. v. FPC, 506 F. 2d 33, 38-39 (D.C. Cir . 1974); when an agency applies a policy in a particular situation, “it must be prepared to support the policy just as if the policy statement had never been issued”). The Commission should further reconsider and revoke a recent decision that affirms and applies the unlawful policy, Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15 (July 23, 2008) (“CLI-08-15”). The Sierra Club and other public organizations and individuals further suggest that the manner in which the NRC is poised to conduct the licensing proceeding would deprive these groups and individuals and the general public a fair and meaningful opportunity for a hearing on the Fermi COLA, in violation of the AEA, the Administrative Procedure Act (“APA”) and the NRC’s own regulations. As a matter of law, the COLA is incapable of meeting the APA’s requirement for an adequate hearing notice, because one of the chief “issues of . . . law” that must be included in the hearing notice – the content of the ESBWR standard design certification rule – has not been established. The legal circumstance here is that the application cannot be considered “complete” for purposes of satisfying the docketing standard in 10 C.F.R. § 2.101 (a) (2) or § 2.104(b)’s requirement to provide notice of the factual issues subject to a hearing, because the underlying design is not even finished, let alone certified.

Without a fixed, certified ESBWR design, public commenters in the ongoing NEPA proceeding cannot meaningfully comment concerning operational prospects and associated environmental effects, accident scenarios and such effects; nor can they be afforded an understanding of the ongoing radiation emissions that come from all operating nuclear power plants. Furthermore, the public faces a March 9, 2009 deadline to raise trial contentions in the coming adjudication of the license. The absence of certainty about whether the ESBWR design will even be the ultimate reactor constructed by DTE (assuming that somehow nuclear is the preferred alternative against far safer and cheaper options) is a denial of due process to the public. Consequently, any licensing efforts conducted by the NRC will be riddled with doubts and conditions which will, of course, heighten the growing perception that the fix is in and that this process is merely bread and circuses.

The regulatory scheme embodied in 10 CFR Part 52 regulatory scheme leaves the Commission only two choices with respect to the conduct of a licensing proceeding for the proposed Fermi 3 either to hold an adjudication on the entire COLA, including the ESBWR design certification application that is incorporated by reference into the COLA; or to complete the ESBWR design certification rulemaking before holding an adjudicatory hearing on the Fermi 3 COLA. The Part 52 regulations do not give the NRC the option of removing the COLA’s design-related contents from the scope of the adjudication on the COLA and referring them to a separate rulemaking for resolution.

The NRC has apparently committed to conduct a rulemaking on the ESBWR standard design certification application. The Sierra Club and other public groups and individuals respectfully suggest that the Commission must complete the ESBWR design certification rulemaking before commencing the Fermi 3 COLA adjudication and therefore they request to suspend all further steps toward that adjudication immediately, pending completion of the ESBWR design certification rulemaking. (**0082-37** [Lodge, Terry])

Comment: General Electric-Hitachi's so-called Economic Simplified Boiling Water Reactor (ESBWR) design, proposed by DTE to be built as the new Fermi 3 reactor, has not even been completed, let alone certified by the U.S. Nuclear Regulatory Commission. The ESBWR has suffered many recent setbacks, calling into serious question its viability.

On November 23, 2008 there were six ESBWRs proposed to be built across the country: one by Dominion Nuclear at North Anna, Virginia; others by Entergy Nuclear at Grand Gulf, Mississippi and River Bend, Louisiana; two more by Exelon Nuclear at Victoria County Station, Texas; and the sixth by DTE at Fermi nuclear power plant near Monroe, Michigan.

However, on November 24th the ESBWR dominoes began to fall. That's when Exelon announced it would abandon the ESBWR design for its proposed two new reactors at Victoria County Station, Texas.

Texans for a Sound Energy Policy had objected to NRC allowing an ESBWR licensing proceeding to continue, given the incomplete status of the design. In fact, they argued that the continuation of the licensing proceeding would violate federal laws and NRC regulations. Such pressure contributed to the nuclear utility, Exelon, the largest in the U.S., announcing that it was no longer considering the ESBWR design for its Victoria County Station, Texas twin reactor project. Exelon notified NRC it would seek another reactor design, stating “technologies other than the ESBWR provide the project greater commercial and schedule certainty...As a result, Exelon is considering reactor technologies that have more mature designs, more certain cost structures and better availability of information than the ESBWR.”

January 9, 2009 marked Black Friday for the ESBWR design. Entergy, the second-largest nuclear generator in the United States, announced cancellation of its ESBWR new reactor proposals at both Grand Gulf, Mississippi and River Bend, Louisiana. An Entergy press release reported:

The company asked the Nuclear Regulatory Commission on Friday to suspend reviews specific to GE Hitachi's Economic Simplified Boiling Water Reactor after unsuccessful attempts to come to mutually acceptable business terms with GEH [General Electric Hitachi]. Entergy Nuclear also will temporarily defer environmental reviews related to the construction and operating license applications for potential projects at its nuclear sites at Grand Gulf, near Port Gibson, Miss., and River Bend, near St. Francisville, La. Paul Hinnenkamp, vice president of Entergy Nuclear's business development function, said “... this action simply reflects the fact that we have not been able to come to mutually agreeable terms and conditions with GEH for the potential deployment of an ESBWR."

Later that same day, Reuters reported that Dominion Resources Inc. had likewise been unable to reach an agreement with GE Hitachi to pursue development of a new nuclear plant in Virginia.... Reuters went on: [Spokesman]. Jim Norvelle said Dominion has decided to open a competitive bidding process to select a new engineering, procurement and construction partner

for a proposed single new reactor at the North Anna nuclear station in Virginia. While Exelon, Entergy, and Dominion have pledged to continue pursuing new reactors at these same sites, they have made clear that they would not be ESBWRs. (**0084-2** [Kamps, Kevin and Keegan, Michael])

Response: *10 CFR 52.55(c) allows a COL applicant, at its own risk, to reference a design that is under review by NRC but not yet certified. The ESBWR design is one such design currently under review. However, a COL cannot be issued by NRC until the reactor design is certified by NRC. Applicants select a reactor technology based on their own business criteria. If the ESBWR does not receive certification, then Detroit Edison Company (Detroit Edison) would have to determine whether it would proceed with a different reactor technology. A change in the reactor technology would need to be considered by NRC to determine whether the change would be significant in terms of the environmental impacts of construction or operation.*

Comment: I have a complaint about the documents. I've got an old type phone-in type computer that operates on the phone line, called phone modem, and it takes a long time to download documents. And to take up space and time at a library to download some of this stuff, you know, is asking a lot. And so I haven't read the Environmental Review by the company. So some of the things I may say may not be pertinent. But I would appreciate if hard copy documents could be available in more locations. Perhaps -- there's a reference library at the University of Michigan-Dearborn, there's one at the Centennial Library in Dearborn, Detroit Library I'm sure has one, probably Toledo also. That would be helpful. (**0058-105** [McArdle, Ed])

Comment: I understand that at this time DTE/Detroit Edison and NRC documentation regarding the Fermi 3 project is available for public review at only the main branch (Ellis Branch) of the Monroe County Library. Fermi 2 is in Frenchtown Charter Township and I understand that the DTE/Detroit Edison proposal is to build Fermi 3 next to Fermi 2. The main branch of the Monroe County Library is not in Frenchtown Charter Township. However three other branches of that library are. Could you add those three other branches and the Frenchtown Township government center to the list of locations where Fermi 3 environmental review and other documentation will be available for review? (**0083-26** [Kaufman, Hedi])

Response: *Detroit Edison's ER is available for public inspection at the NRC Public Document Room in Rockville, Maryland. The ER is also available electronically through NRC's Agencywide Documents Access and Management System (ADAMS) website at http://www.nrc.gov/reading-rm/adams.html and at http://www.nrc.gov/reactors/new-reactors/col/fermi.html. The Public Document Room can also be contacted at http://www.nrc.gov/reading-rm/pdr/copy-service.html to request a paper copy or CD/DVD of the document for a fee. NRC also wanted to ensure that there was an opportunity for meaningful public participation in the environmental review for such circumstances where electronic access could be difficult; consequently, the NRC staff is providing local access to Detroit Edison's ER and certain other documents at the Ellis Reference & Information Center of the Monroe County Library System in Monroe, Michigan. The NRC staff believes that these options offer reasonable opportunities for public access.*

Comment: As far as a reactor design, the criticism of a license for that reactor vessel, it's an upscale of what already exists. It's just adding more fuel bundles in a larger diameter vessel, so not very much to think about. (**0058-132** [Meyer, Richard])

Response: *The comment refers to characteristics of the ESBWR design. It provides no new information relevant to the environmental review and will not be considered further.*

2.2 Comments Concerning Process – NEPA

Comment: For all actions significantly affecting the quality of the human environment, the federal agency must provide a detailed statement on the environmental impact of the proposed action, alternatives to the proposed actions, and any irreversible and irretrievable commitments of resources that would occur with implementation of the action. 42 U.S.C. 4332(2)(C). The Environmental Impact Statement must contain a full and fair discussion of significant environmental impacts that is supported by evidence that the agency has made the necessary environmental analyses. 40 C.F.R. 1502.1. The discussion must include an analysis of the direct, indirect, and likely cumulative impacts of the proposed action. See 40 C.F.R. 1508.7, 1508.8, 1508.25. Federal agencies also must analyze and discuss significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. 40 C.F.R.1502.9(c). To satisfy NEPA, the NRC must demonstrate it has taken a hard look at the environmental consequences of the proposed action. To comply with NEPA's "hard look" requirement an agency must adequately identify and evaluate environmental concerns. Friends of the Bow v. Thompson, 124 F.3d 1210, 1213 (10th Cir. 1997).

NEPA's twin objectives are to ensure that the federal agency consider[s] every significant aspect of the environmental impact of a proposed action and to inform the public that it has indeed considered environmental concerns in its decision-making process. Earth Island Inst. v. U.S. Forest Serv., 442 F.3d 1147, 1153-54 (9th Cir. 2006); Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, 462 U.S. 87, 97 (1983). See also 40 C.F.R. 1500.1(b), (c). Thus, NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken [emphasis supplied]... Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. Id. 1500.1(b).

NEPA's emphasis on the importance of coherent and comprehensive up-front environmental analysis. . . ensure[s] informed decision-making to the end that the agency will not act on incomplete information, only to regret its decision after it is too late to correct. Blue Mtns. Biodiversity Project v. Blackwood, 161 F.3d 1208, 1216 (9th Cir. 1998). In Foundation on Economic Trends v. Heckler, 756 F.2d 143 (D.C. Cir. 1985), the D.C. Circuit Court of Appeals characterized NEPA litigation as the critical juncture in judicial enforcement of the hard look doctrine, to ensure that the agency has adequately considered and disclosed the environmental impacts of its actions and that its decision is not arbitrary or capricious. Id. at 151. The purpose of NEPA is to ensure that agencies do not make uninformed - as opposed to unwise - decisions. Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 348 (1989). (**0045-2** [Lodge, Terry])

Response: *The comment relates to the requirements set forth in NEPA for preparing an EIS. Section 102 of NEPA directs that an EIS be prepared for major Federal actions that have the potential to significantly affect the quality of the human environment. NRC has implemented Section 102 of NEPA in 10 CFR Part 51. Further, in 10 CFR 51.20, the Commission has determined that the issuance of a COL under 10 CFR Part 52 is an action that requires an EIS. The comment is consistent with NRC policy and practice, but it provides no specific information related to the proposed licensing action for the Fermi 3 nuclear plant, and will not be considered in developing the EIS.*

Comment: The scoping for the draft EIS should include a thorough review of all environmental and safety implications to Essex County, Ontario, Canada including the City of Windsor. The following entities shall be invited to participate in the scoping process:

- The City of Windsor and other municipalities bordering the Detroit River and Lake Erie;
- The County of Essex;
- The Ontario Ministry of the Environment; and
- Environment Canada.

Further notifications shall be direct to:
City Clerk's Office
City of Windsor
350 City Hall Square, Rm 201
Windsor, Ontario Canada
N9A 6S1 (**0049-1** [Richters, Karina])

Response: *The environmental impacts in Canada from the construction or operation of the proposed Fermi 3 nuclear plant will be considered as appropriate. Public notices of the scoping process were provided in a* Federal Register *(FR) Notice of Intent to conduct scoping (73 FR 75142), advertisements in U.S. and Canadian newspapers, and a press release.*

Comment: Due to the timing of the past meeting, in the dead of winter, the federal Nuclear Regulatory Commission should extend the deadline for accepting comments on the scope of the planned federal environmental review of the proposal for at least 90 days and hold another hearing in the spring when the weather would be better and provide a better input by the community at large. (**0011-1** [Stock, Ed & Kim])

Comment: If the NRC does not suspend review of the Environmental Report (the scoping process for the EIS), then I call for an extension of the comment period for 120 days. The NRC scheduled a short comment period for 1771 pages - actually much greater than that with referenced materials - and over the Christmas/New Year's holiday when citizens have hefty civic and family responsibilities. The official notice of the only public meetings was made on Christmas Eve. The only public meetings were held in bitter winter weather with snow-covered roads and black ice that made travel treacherous. There were days that documents could not be accessed from the NRC's website, by the NRC's own admission, and those with dial-up computers could not download larger documents. Another public meeting should be scheduled to take the place of the ones that occurred in treacherous weather. (**0051-2** [Cumbow, Kay])

Comment: On behalf of our members in Michigan and Ohio, I am writing to request a 120 day extension to the current Feb. 9, 2009 deadline for public comment on the environmental scoping for the proposed Fermi 3 reactor near Monroe, Michigan. I also request that NRC hold another public meeting, like the one held on Jan. 14th at Monroe County Community College, only this time in the spring, when the weather is more conducive to a large public turn out.

Ever since the Fermi 3 licensing proceeding was first announced in early December, 2008 in the Federal Register, I have had repeated problems utilizing NRC's website and ADAMS system to access relevant documents due to the NRC system's dysfunctionality. Such problems were especially bad during the holiday season between Christmas and New Year's, when preparations for the Jan. 14th meeting were urgently needed to be undertaken. Given the immense size of the documentation -- nearly 2,000 pages for the Environmental Report alone, and around 17,000 pages for the overall Combined Construction and Operating License Application (COLA) -- it is eminently reasonable for NRC to grant a 120 day extension to the current deadline. This is the only way for ordinary citizens concerned about the Fermi 3 proposal to read and analyze such incredibly long and technical documents, and seek expert assistance in their analysis and in the preparation of comments to NRC in response.

NRC's publication of the press release announcing the Jan. 14th public meeting late in the afternoon on Christmas Eve also served to significantly lower public involvement. In fact, the press release was obscured by the fact that it was not posted on the NRC's homepage, but only in its press release archives, even on the initial day of its publication.

This poor public notification was compounded by the extreme winter weather that occurred on Jan. 14th. NRC should have realized that holding a public meeting on Jan. 14 in southeast Michigan on the Great Lakes shore ran a high risk of experiencing severe winter weather that would dramatically lower public turn out. The blowing and drifting snow, and extreme cold, deterred a significant number of persons from venturing forth to the meeting on Jan. 14th. An entire carpool of concerned citizens from Ann Arbor, who oppose the Fermi 3 reactor, phoned to inform me that the extreme winter weather would make it impossible for them to attend either of the day's sessions. The impacts and risk of this extreme cold was made all the more clear by the dead car battery experienced by NRC's Gregory Hatchett that day. The extreme cold was near record breaking, and The Weather Channel on cable television, and other authorities, were explicitly urging vulnerable persons -- such as the elderly -- to remain indoors and not risk outdoor travel given the hazardous road conditions. All of this dramatically reduced what would have been a much larger turn out at the public meeting. By way of comparison, a much larger crowd of participants from the public attended the NRC introductory meeting last August 20th, 2008 at the same location. However, that event was not an official NRC meeting for the acceptance of official public comment into the NEPA record. For these reasons, I request a hearing during more reasonable weather conditions, such as in May or June. This would be made possible by a 120 day extension to the comment period. (**0057-1** [Kamps, Kevin])

Comment: I first want to say that this is being done way too hastily, and that we had 1,771 pages to review over the Christmas and New Year's holiday. And that's when people have a lot of other family and community obligations. This room should be packed, and one reason it isn't is because of those holiday considerations. This is also one of the coldest weeks in the year. And, that happens in January. (**0058-20** [Cumbow, Kay])

Comment: I want to go on record as stating this whole process is premature. I object to being publicly notified on Christmas Eve that there would be a meeting; and I object to the meeting being held in the middle of a Michigan winter, when the probability of people attending this proceeding, this hearing, would likely be diminished. So I am requesting an extension of the comment period for an additional 90 days; and I am requesting that another meeting of this type be held in the spring, when people can come out and they don't have to brave the coldest night of the year, last night, and the weather condition. So I object to this entire process. (**0058-61** [Keegan, Michael])

Comment: And again, one wonders about the timing of these hearings. (**0058-88** [Fischer, Lydia])

Comment: I must say I'm presenting under protest, in that the notification, the public notification occurred on Christmas Eve and the meeting was scheduled in the heart of a Michigan winter, and as you can see the weather is quite inclement. If you were to schedule a meeting where you didn't want the public to be participating, it would be January 14th, in the middle of blizzards and record cold temperatures. (**0059-62** [Keegan, Michael])

Comment: I request an extension of the public comment deadline, 30 days beyond Feb. 9. (**0083-29** [Kaufman, Hedi])

Response: *More than one month prior to receipt of the Fermi 3 COL application, NRC conducted a Public Outreach Meeting in the site vicinity to heighten public awareness of the NRC process for conducting licensing reviews under 10 CFR Part 52. At that meeting, the NRC staff discussed both the safety and environmental reviews that would be conducted. Public involvement and comments are invited and encouraged throughout the environmental review of a project, and NRC formally solicits both written and oral comments from members of the public at two different times during the review.*

The scoping process is the public's first opportunity for comment, and is conducted to define the proposed action, determine the scope of the environmental impact statement, and identify significant issues to be analyzed. NRC conducted scoping meetings near the proposed site to facilitate public participation. NRC published the Federal Register *notice that informed the public of the times and locations. As outlined at the Public Outreach Meeting, the dates of public scoping meetings were contingent upon when the application was submitted to NRC and the resulting environmental review schedule. NRC also published meeting notices in newspapers in communities near the plant and posted a notice of the meeting on the NRC's website for the project. The website provides addresses for written comments to be submitted in person, by mail, or electronically. The deadline for comments is usually 60 days following the publication in the* Federal Register *of the Notice of Intent to conduct scoping.*

The public's second opportunity to comment will occur after the draft EIS is published. NRC will file the draft EIS with the U.S. Environmental Protection Agency (EPA), and the EPA will issue a Notice of Filing in the Federal Register *to formalize the start of the public comment period. The NRC staff places a Notice of Availability in the* Federal Register *and on the NRC website indicating that the draft EIS has been issued, with instructions for the public and other interested parties on how to obtain copies. Those persons already on the mailing list will receive copies of the NRC notice and the draft EIS without further action. The draft EIS will also be available on the NRC website. The notice will request comments on the draft EIS and will provide addresses for delivering or sending the comments to NRC. Usually, a 75-day period is allotted for the public's review and the receipt of comments. During the public comment period, the NRC staff will hold a second set of public meetings in the vicinity of the proposed site to present the results of the draft EIS to the public and to obtain comments, both oral and written, from the public.*

Comment: When do you sponsor open direct public discussion-debates with these experts, rather than the biased, staged dog-and pony-shows which few concerned public citizens attend, partly because of distrust via past experiences, partly because advance notice of such meetings is inadequate, limited and never visibly itemized at the meetings. (**0004-7** [Carey, Corinne])

Response: *It is the policy of NRC to involve the public in the Commission's decision-making process; therefore, NRC elects to conduct open public scoping meetings in association with its environmental review process. Meetings are generally held in a location accessible by the largest population that will experience the most direct environmental impact as a result of the proposed action. In the case of the proposed Fermi 3 nuclear plant, this population is located in the area of Monroe County, Michigan. The scoping period was open for 60 days, and during that time, the public and other agencies were welcome to provide verbal comments at scoping meetings or to submit written comments. NRC will hold additional public meetings after the draft EIS is published. Separate meetings will be held by NRC in association with the safety review process.*

Comment: However, the IJC does have additional responsibilities under the Canada-U.S. Great Lakes Water Quality Agreement and is pleased, therefore, that your environmental assessment will consider the potential impact of the proposed plan on water quality, aquatic biota and their habitat, or other environmental resources. (**0015-1** [Lawson, Ph.D., Charles]; **0071-1** [Lawson, Ph.D., Charles])

Comment: U.S. Environmental Protection Agency (EPA) staff members were pleased to be a part of the Fermi 3 site audit visit in early February. We have a better understanding of the topics the Nuclear Regulatory Commission (NRC) will cover in its Environmental Impact Statement (EIS) for this project, a new reactor unit associated with the existing Fermi Nuclear Power Plant in Monroe County, Michigan. (**0040-1** [Miller, Anna]; **0080-1** [Westlake, Kenneth A.])

Comment: Thank you for inviting us to participate in the site audit and for considering our comments on the EIS scope. We look forward to working with your staff during the environmental review process. (**0040-4** [Miller, Anna]; **0080-4** [Westlake, Kenneth A.])

Response: *NRC conducts a number of activities during its review that will involve direct interactions with other governmental organizations. The comments are general in nature, provide no new information related to the impacts of construction or operations of the proposed Fermi 3 nuclear plant, and will not be considered in developing the EIS.*

Comment: If is very difficult to change habits. I ask you to be brave in taking action to avoid the possibility of serious or irreversible environmental harm even when scientific knowledge is incomplete or inconclusive. I ask you to be courageous in taking in the information that we are learning and in learning from any mistakes from your field. We humans can now affect the global climate, environment and life by our actions. We can add to the burden of a withering planet or we can bring enormous relief and safety. Please turn all your leadership toward clear energy solutions in favor of long-term care and flourishing Earth's human and ecological communities. Sincerely counting on your openness and determination to support thoughtful energy plans. (**0027-4** [Askwith, Annemarie])

Response: *NRC does not have a role in establishing the energy policy of the United States. NRC does not promote the use of nuclear power as a preferred energy alternative, and it does not regulate alternatives to producing electricity that do not involve nuclear power. Establishing energy policy is the domain of the President, the Congress, and the U.S. Department of Energy. Nevertheless, as part of NRC's environmental review, alternative actions such as the no-action alternative (energy efficiency and demand-side management), new generation alternatives, purchased electrical power, alternative technologies (including renewable energy such as wind and solar), and the combination of alternatives will be considered in Chapter 9 of the EIS.*

Comment: A NEPA document in connection with Fermi 3 will be a vain undertaking unless the Nuclear Regulatory Commission administratively forbids the initiation of any physical construction or preconstruction activities at the Fermi 3 site until the completion and finalization of an Environmental Impact Statement and selection of a preferred alternative.

In 2007 the Nuclear Regulatory Commission promulgated a new, de-regulated definition of construction as that term applies to the building of new nuclear power plants. Under the new 10 C.F.R. 50.10(a)(2), the following activities were relieved of all NRC oversight:

- Site exploration

- Procurement
- Logging, clearing of land, grading
- Excavation for any structure
- Fabrication at other than the final onsite, in-place location (modules)

At the same time, the limited work authorization - the first point at which NRC build authority must be sought - was moved higher/later in the licensing continuum. The new LWA list of allowable activities contained in the revised 10 C.F.R. 50.10(d)(1) includes:

- Driving of pilings
- Subsurface preparation
- Placement of backfill, concrete, or permanent retaining walls
- Installation of foundation

The drastic alteration of the meaning of construction circumvents NEPA. By allowing excavation activity, for example, the utility commences an irretrievable commitment to a nuclear-fired power plant long before the completion of an Environmental Impact Statement which is supposed to seriously consider reasonable alternatives. This manifests an undeniable bias toward central baseload plant construction and precludes substantive consideration of any other alternatives such as wind, solar, geothermal and energy conservation. By de-regulating the nuclear plant construction process from NEPA restrictions, the Commission is handing DTE, as applicant, the sunk costs argument, i.e., that because the utility has incurred expenses for its project, it should not, nay, must not, be denied an NRC license to complete it.

If the Commission were to allow any acts of construction to proceed before the completion of the NEPA process, such is illegal because it is contrary to NEPA. Because such enabling would act to deprive the public of the benefit of the procedural protections of NEPA, the NRC revamping of its definition of construction comprises a denial of due process and is unconstitutional as applied. (**0045-1** [Lodge, Terry])

Comment: The present process allows DTE to, de facto, irretrievably commit to the project and to invest heavily in construction prior to the de jure selection of a preferred alternative. This makes the environmental document into a farce. A project being built while it is being licensed is far more difficult to stop than a project which seeks merely paper approval. Sunk costs significantly undermine the effectiveness of environmental laws. And besides massive investment, the work undertaken prior to a final EIS drastically affects the environment and natural resources - the very resources that should have been protected until more thorough analysis of the project's impact on the environment was conducted. By the time opponents of the project can get a court to consider enjoining the project, the court faces a fait accompli.

The First Circuit Court of Appeals illustrated in Sierra Club v. Marsh the dangers that sunk costs pose in the NEPA context. There, the Court of Appeals vacated a district court ruling denying a preliminary injunction to environmental plaintiffs. The plaintiffs sought to halt the construction of a causeway to an island that the State of Maine wanted to develop into a marine terminal. The district court had denied the preliminary injunction in the belief that the harm to the environment was not irreparable because the causeway always could be removed at a later time.

The Court of Appeals vacated the district court's decision not to issue a preliminary injunction, Sierra Club v. Marsh, 872 F.2d 497, 500-501 (1st Cir. 1989) because setting aside an agency's decision at a later date would not undo environmental harm. Moreover, the commitment of

resources already made to the project would influence any re-evaluation of the merits of the project. The appellate panel held that it is far easier to influence an initial choice than to change a mind already made up and that the harm at stake is a harm to the environment, but the harm consists of the added risk to the environment that takes place when governmental decision makers make up their minds without having before them an analysis (with prior public comment) of the likely effects of their decision upon the environment. Id. Hence premature decisions irreparably harm the environment, by increasing the risk to the environment.

Congress promulgated NEPA to ensure that federal projects were not initiated until an accurate assessment of the project's impact on the environment was complete. Vermont Yankee Nuclear Power Corp. v. National Resources Defense Council, Inc., 435 U.S. 519, 558 (1978; finding Congress passed NEPA to ensure that federal agencies consider the environmental consequences of proposed actions during the decision-making process, thereby insuring fully informed and well-considered decisions); Massachusetts v. Watt, 716 F.2d 946, 953 (1st Cir. 1983; [NEPA's] purpose is to require consideration of environmental factors before project momentum is irresistible, before options are closed, and before agency commitments are set in concrete. (quoting W. Rogers, Environmental Law 7.7 at 767 (1977)); Arlington Coalition on Transp. v. Volpe, 458 F.2d 1323, 1333 (4th Cir.; stating that the purpose of NEPA [is] to insure that actions by federal agencies be taken with due consideration of environmental effects), cert. denied sub nom. Fugate v. Arlington Coalition on Transp., 409 U.S. 1000 (1972).

Regulations issued pursuant to NEPA state that until an agency issues a record of decision ... no action concerning the proposal shall be taken which would: (1) have an adverse environmental impact; or (2) limit the choice of reasonable alternatives. 40 C.F.R. 1506.1 (1995); see also 40 C.F.R. 1501.2 (stating that agencies must integrate the NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values .. (**0045-3** [Lodge, Terry])

Comment: In the case of Fermi 3, the Commission should immediately forbid any physical activity at the proposed plant site by DTE or its contractors and subcontractors which is designed to further a build alternative at the proposed site for Fermi 3, pending formal and final completion of an EIS and the selection of a preferred alternative. To allow otherwise violates NEPA and invites a lawsuit. (**0045-4** [Lodge, Terry])

Comment: I call for the NRC to not allow any preconstruction activity until a full EIS is completed and all alternatives are examined in a comprehensive way. Allowing preconstruction activity defeats the purpose of NEPA, as well as not allowing examination or mitigation of preconstruction activity by NEPA. (**0051-3** [Cumbow, Kay])

Comment: I'd like to talk about the integrity of the NEPA process. I appreciate greatly the fact that the Nuclear Regulatory Commission has professional staff who are devoted to ensuring that NEPA's complied with. And it's not the people here today I have problems with. I have problems with the former Commissioner Merrifield, who departed the NRC in 2007 only after he had hand-carried through the process a rule change that deregulated the construction process so that Detroit Edison, and other utilities, are able to undertake serious construction of nuclear power plants before the NEPA process is completed. And to my knowledge it's the only agency that I've ever encountered that is able to -- that has enabled its client population to do that.

When there's a timber cut, Environmental Impact Statement process, the trees don't get cut before the ultimate decision is made and the environmental considerations denominated. When the Department of Energy wants to detonate a test weapon at the Nevada Test Site, they don't

set off the bomb before they've completed the NEPA process. When your State Highway Department of Transportation wants to build an interstate through your living room, they don't get to start the bulldozers and knock over houses before they've completed the NEPA process, ruled in or ruled out alternatives. (**0058-116** [Lodge, Terry])

Comment: The other thing that I was concerned about was that these plants, like Fermi, are able to build part of their structure outside the regulation of a permit. In other words, if I want to lay all the concrete that it's going to take to build the plant, I don't have to wait for the permit to be approved to go ahead and start building.

It's kind of a flaw in the law because, as I see it, it looks like the taxpayer is subsidizing the possibility that there will be any kind of a refusal of the NRC to approve the plant. So if the plant has a chance of being refused, then the taxpayer will pick up the cost of all of the structures that are built without the approval.

The only way that I can see that somebody would go ahead and start building structures like these, is if they already knew that the approval would take place. If that's not correct I would like somebody to tell me why someone would spend millions and millions of dollars without having any idea of whether they would be reimbursed. (**0058-43** [Simpson, Robert])

Response: *These comments refer to a 2007 amendment to the Commission's regulations concerning limited work authorizations (72 FR 57416, October 9, 2007). In 10 CFR sections 50.10(a) and 51.4, the definition of "construction" is limited to activities which are for safety-related structures, systems, or components (SSCs) and certain other SSCs. A limited work authorization, construction permit, or COL is required before performing such activities. Activities that do not fall within NRC's definition of construction, such as clearing and grading, excavating, building transmission lines, and erecting support buildings are considered "preconstruction" activities that do not require NRC authorization. Most of these activities are regulated by other local, State, Tribal, or Federal agencies and require permits from them to proceed. In its environmental review, NRC must consider "preconstruction" activities in the context of cumulative impacts. These impacts will be evaluated in Chapters 4 and 7 of the EIS.*

2.3 Comments Concerning Land Use – Site and Vicinity

Comment: Ironically the War of 1812 Bicentennial planning process shares the same timeframe as the Environmental Review process for Fermi unit 3. And in accordance the State of Michigan Centers for Regional Excellence Program, groups tourism with energy production as collaborative activities. In fact, the seven-and-a-half mile radius from Fermi unit 3 includes all of the cultural, historical, recreational, and natural sites being considered as bicentennial legacy projects.

The group I represent will be long gone before Fermi unit 3 is operational. However, the Experiential Tourism Task Group War of 1812 Bicentennial Steering Committee in Monroe County was charged with the responsibility of creating bicentennial legacy projects to enhance tourism. Our objective is to marshal all of the heritage resources on the waterfront to make a compelling experience for visitors to the Lake Erie west region. Efforts are underway with the help of the Native American community, to bring back wild rice as an 1812 bicentennial project. Fermi unit 3 has ample areas suitable for the propagation of wild rice. This would be a cultural, economic endeavor that would bridge the gap to future generations. It would start the process of reintroducing missing species that once were abundant in the Lake Erie marshes. The

Downriver link, Greenways Initiative, has advocated a non-motorized trail around Fermi unit on North Dixie Highway. The National Park Service promotes the rivers trails, and conservation assistance program that would supplement this effort.

Within the seven-and-a-half radius of Fermi Unit 3, the U.S. Fish and Wildlife Service has established an international wildlife refuge. The National Park Service operates the Motor City's National Heritage area, and is exploring the establishment of a National Battlefield Park, that would connect to the North Country National Scenic Trail near Fort Meigs in Perrysburg, Ohio. The US Army Corps of Engineers operates a confined disposal facility on the St. Lawrence Seaway at Pointe Mouillee, that is the world's largest freshwater marsh restoration project. This is all exciting news, and the combined license application should be updated to reflect these initiatives, and the application should join in the effort to create a center for regional excellence built on the energy industry in the Lake Erie West region. (**0058-124** [Micka, Richard])

Comment: One of the key elements in the State centers of regional excellence program is energy production. Another element is tourism. Ironically both of these elements have come together on the shores of Lake Erie. All the bicentennial heritage resources, cultural, historic, recreational, and natural, are within the seven-and-a-half mile radius of Fermi Unit 3, proposed Fermi Unit 3.

The planning process for the bicentennial coincides with the environmental review process for Fermi Unit 3. The greatest challenge for the Bicentennial Task Group is achieving center of regional excellence status in capacity building, which is the hallmark of sustainable energy production.

This sphere of influence surrounding the existing Fermi nuclear power plant makes it a prime candidate to become a center of regional excellence under the Governor's transformation initiative. The scoping process for Fermi's Unit 3 comes at a critical time. Achieving center of regional excellence could be a byproduct of the Fermi Unit 3 environmental report and would benefit the entire community.

The Fermi 3 scoping process and environmental report provide a compilation of all the efforts undertaken to date to restore environmental resources on the shore of Lake Erie. So there's an immediate result and benefit from this process that we're taking under our administration here this evening. So have heart and stay with the program. (**0059-87** [Micka, Richard])

Comment: The 7.5 Mile Radius within the Fermi Unit 3 Sphere of Influence can become a Center for Regional Excellence (CRE) under the Governor's Transformation Initiative. It needs to be packaged in such a way that it fulfills the Cultural, Economic, Development Action Strategy proposed by the State of Michigan. An Energy Corridor along the West Shore of Lake Erie would benefit the Community Cultural Economic Development Readiness Initiative. This process uses a prescribed Set of Capacity Building Tools toward attainment of Community Empowerment and Actualization Goals. The COLA already uses these tools in bringing about Sustainable Energy Resources such as Efficiency, Research, Assessment, Evaluation, Consultancy, Training, Mentoring, Planning, Partnerships, Collaborations and Incentives. Fermi Unit 3 can lead by example. As a member of the Community, Fermi Unit 3 should work with Monroe County to implement a Cultural, Economic, Development Action Strategy (copy attached). The entire Electrical Generation Resources of Monroe County should be harnessed to create a Center for Regional Excellence. The Energy Story needs to be told specifically where Stewardship of Natural Resources is concerned. Finally, there are two 1812 Legacies within the 7.5 mile Radius that need to be explored.

Wild Rice. Efforts are under way with the help of the Native American Community to bring back Wild Rice as an 1812 Bicentennial Project. Fermi Unit 3 has ample areas suitable for the propagation of Wild Rice. This would be a cultural, economic endeavor -that would bridge the gap to future generations. It would start the process of reintroducing missing species that once were abundant in the Lake Erie Marshes.

Non-Motorized Transportation. The Downriver Linked Greenways Initiative (Brochure attached) has advocated a non-motorized trail around Fermi Unit 3 on North Dixie Hwy. (Hull's Road). This is a CRE Project and could become a part of the Fermi Unit 3 Evacuation Plan. The NPS promotes the Rivers, Trails and Conservation Assistance (RICA) Program that would supplement this effort. (**0082-31** [Micka, Richard])

Response: *These interdisciplinary comments relate to existing and proposed land use, cultural resources, and ecology in the site vicinity. These aspects of the affected environment will be discussed in Chapter 2 of the EIS. General impacts of the proposed action on land use including expected permanent and temporary land use changes at the site in the vicinity, in the region, and in offsite areas such as affected transmission corridors will be evaluated in Chapters 4 and 5 of the EIS. Impacts specifically related to the 1812 Bicentennial Project will be addressed in the cultural resources impact discussions in Chapters 4 and 5 of the EIS. Impacts specifically related to the possible reestablishment of wild rice in the wetlands along Lake Erie will be addressed in the terrestrial ecology impact discussions in those same chapters. Cumulative impacts of the proposed action will be discussed in Chapter 7 of the EIS.*

Comment: If there is some way of better connecting the natural spaces we still have along the shoreline. These power plants, whether they're coal or nuclear, tend to be dead spots for outdoor recreation. Hikers can't access them generally, and fishermen oftentimes have to deal with sometimes water access problems because of security in the age of terrorism. And I guess what I'm asking DTE maybe to do is to do some compensation for the local residents to have some positive environmental and recreational impact in addition to the plant development. (**0059-80** [Ingels, Mike])

Response: *Impacts of construction and operation of the proposed Fermi 3 nuclear plant on recreational opportunities, and a discussion of any possible and appropriate mitigation measures, will be presented in the land use impact discussions in Chapters 4 and 5 of the EIS.*

Comment: Staff of the MDEQ has conducted an initial review of the proposal, which indicates that this project is located within Michigan's coastal management boundary and is subject to Federal Consistency requirements. Before the U.S. Nuclear Regulatory Commission can issue the proposed COL, staff of the LWMD will need to review the proposed project for Federal Consistency with Michigan's Coastal Management Program (MCMP), as required by Section 307 of the Coastal Zone Management Act, PL 92-583, as amended. This will happen after the final EIS has been submitted to our office with a request for Coastal Zone Management certification of Federal Consistency. A determination of Federal Consistency with the MCMP requires evaluation of a project to determine if it will have an adverse impact on coastal, land, or, water uses or coastal resources. Projects are evaluated using the permitting criteria contained in the regulatory statutes administered by the MDEQ. These statutes constitute the enforceable policies of the MCMP. The statutes that this project will be reviewed against for Federal Consistency are found in Michigan's NREPA. The COL proposes state regulated construction activities which will require state permits and may cause significant impacts, as discussed in more detail below. (**0079-1** [Browne, Elizabeth M.])

Response: *Prior to issuance of a COL for the proposed Fermi 3 nuclear plant, Detroit Edison will be required to demonstrate compliance with all applicable Federal and State laws and regulations including those of the Coastal Zone Management Act.*

Comment: Figure 2.4-6 illustrates the Detroit River International Wildlife Refuge Boundary. The south extent of the Boundary follows 1-75 to the Ohio line. It does not terminate at the River Raisin Federal Navigation Channel (Monroe Harbor) as indicated in Figure 2.4-6.

Paragraph 2.2.1.2.5 (Page 2~18) Natural and Recreational Areas. The ER indicates that the Detroit River International Wildlife Refuge (DRIWR) is not open to the public. There are units within the Refuge such as Humbug Marsh (Trenton, MI) and Erie Marsh (Erie, MI) that are open to the public at certain times of the year. In the future, the Refuge will encourage public visitation. The Fermi Unit 3 Area is not open to the public. (**0082-27** [Micka, Richard])

Response: *This comment provides information on land use categories and restrictions in the vicinity of the Fermi site, particularly as related to the Detroit River International Wildlife Refuge. This information will be considered in Chapter 2 of the EIS.*

Comment: Figure 2.1-2 illustrates a 7.5 mile Radius around the Fermi Unit 3 vicinity. This radius encompasses a number of Heritage Resource Sites in the Coastal Zone of Monroe County, MI.

RECREATIONAL. Sterling State Park and Downriver Linked Greenways Initiative. (Michigan DNRJ National Park Service/Rivers, Trails & Conservation Assistance Program).

NATURAL. Detroit River International Wildlife Refuge -Eagle Island Marsh (US Fish & Wildlife Service/DRlWR). (**0082-30** [Micka, Richard])

Response: *This comment provides information on land use categories and restrictions in the vicinity of the Fermi site, particularly as related to Heritage Resource Sites. This information will be considered in Chapter 2 of the EIS.*

2.4 Comments Concerning Meteorology and Air Quality

Comment: Construction of the project would create additional greenhouse gases from the cement required for the project, as well as the transportation used to move materials to the area. (**0039-3** [Mitchell, Rita])

Comment: The proponents should be required to do a complete carbon- footprint analysis involved in the construction of the plant and the preparation of materials and equipment, including the carbon emissions associated with uranium mining, refining, enrichment, and fuel fabrication. (**0048-3** [Edwards, Gordon])

Comment: One cannot read a newspaper or watch a television news program without seeing references to the desire for decreased reliance on carbon-based fuels for national security and environmental reasons, to name a few.

The Fermi 3 project provides a step in the right direction towards achieving this goal. (**0058-120** [Lavelline, Joe])

Response: *The NRC staff will evaluate air quality impacts associated with the construction and operation of the Fermi 3 nuclear power plant (including those from carbon and other greenhouse gas emissions) in Chapters 4 and 5, respectively, of the EIS. Carbon emissions from the uranium fuel cycle will be addressed in Chapter 6 of the EIS.*

Comment: I don't know if the cooling towers are included, but if there are I know some cooling towers use fungicides and algaecides to reduce the buildup of algae within cooling towers. Some of these things are chlorinated chemicals which would also have environmental impacts to the air, to the water, and so forth. (**0058-107** [McArdle, Ed])

Response: *The NRC staff will examine the potential impacts of water treatment chemicals used in cooling towers. Results of the analysis will be presented in Chapter 5 of the EIS.*

2.5 Comments Concerning Geology

Comment: We understand the site may have subsurface karst geology. We recommend the EIS address whether there is karst geology and, if present, evaluate how this geologic setting may influence the project's environmental impacts. To facilitate our review, we would appreciate knowing whether karst geology is present, as soon as this information is available. (**0040-3** [Miller, Anna])

Comment: We understand the site may have subsurface karst geology. We recommend the EIS address whether there is karst geology and, if present, evaluate how this geologic setting may influence the project's environmental impacts. To facilitate our review, we would appreciate knowing whether karst geology is present, as soon as this information is available. (**0080-3** [Westlake, Kenneth A.])

Response: *The presence of karst geology in southeastern Michigan will be investigated, and the findings will be presented as background information in Chapter 2 (Affected Environment) of the EIS. If karst is present, it will be evaluated accordingly. Plant safety issues related to karst geology will be addressed in Chapter 2 of NRC's Safety Evaluation Report.*

2.6 Comments Concerning Hydrology – Surface Water

Comment: Water implications: Lake Erie is the shallowest of the Great Lakes. Nuclear energy uses a great deal of water. As the effects of global warming are realized, Lake Erie, as the shallowest of the Great Lakes, will be at the greatest risk. Utilization of, and contamination of great quantities of Lake Erie water is not environmentally responsible. The Great Lakes watershed contains a fifth of Earth's fresh water. Protection of the Great Lakes requires that all development projects such as additional nuclear power plants, be considered for long-term generational effects. We cannot replace the Great Lakes, Lake Erie, or the River Raisin, the waters upon which the Fermi(s) depend. We cannot live without water--clean, non-radiated water. (**0016-3** [Rivera, Gloria])

Comment: In addition to releasing radioactive and toxic poisons into Lake Erie, Fermi currently uses the lake to cool the power plant. (**0019-4** [Schemanski, Sally])

Comment: The EIS should take into account predicted decreases in Lake Erie water levels due to global warming - 3 to 6 feet over the next 60 to 70 years - when considering the implications for water intake and thermal releases.

The analysis should focus on western Lake Erie, the shallowest part of the lake, rather than using the entire lake in its overall analysis.

Data on phosphorous in the application is out of date. Dissolved phosphorous levels have been increasing. (**0028-2** [Shiffler, Nancy L.])

Comment: Are the temporal, special, thermal and volumetric characteristics of the buoyant plume adequately predicted? The Combined License Application (COL) indicates water will be discharged offshore and the plume is expected to be dissipated approximately 1,291 feet from shore. The model predicts a mixing zone of 130 feet long by 226 feet wide, for a total plume area of 0.67 acres. The Department has observed significant direct and indirect negative effects to aquatic resources from power plants discharging to the Michigan waters of the Lake Erie basin. Based on that experience we request clarification of the following questions: 1. Is there a predicted sinking plume? If so, are the temporal, special, thermal and volumetric characteristics of the buoyant plume adequately predicted? 2. Is the volume, velocity, time of passage and time-temperature information in the intake facilities, through the plant, in the discharge facilities, and in the centerline of the thermal plume adequately predicted? (**0029-2** [Freiburger, Chris])

Comment: The Department would like a better explanation regarding the fate of the chemicals used to treat the cooling water and their potential impacts to water quality in the discharge area. The COL indicates that the levels will be monitored as part of the NPDES permit, but we suggest that a detailed description of how those would be treated or managed within the mixing zone be included. (**0029-7** [Freiburger, Chris])

Comment: Will more nuclear power demand more water for future cooling demands? Will people have less water rights because cooling issues demand more water? (**0031-4** [Rysztak, Robert])

Comment: Lake Erie's shallow western basin cannot tolerate the thermal pollution from yet one more large-scale thermo-electric power plant. Lake Erie already faces major lake level loss and retreat of its waters from the current lakeshore due to climate change. It already has a significantly higher air temperature than the rest of the Great Lakes, which contributes to evaporation of Lake Erie's waters. Such water loss will exacerbate overheating, especially in the shallow waters of Lake Erie's western basin, with a current average depth of just 24 feet. (**0050-18** [Kamps, Kevin])

Comment: Given this massive thermal pollution, Fermi 3 should be required to utilize the best available dry cooling tower technology, to minimize or even eliminate water withdrawals from, and heat discharges, into Lake Erie. In addition, DTE's Monroe Coal Plant should be required to install an additional best-available-technology cooling tower. Fermi 3's intake and outfall is Lake Erie but during at least some conditions the intake and outfall would impact the nearby Maumee Bay estuary, the average depth of which is just five feet, and which is already impacted by the neighboring DTE Monroe coal burning power plant, which uses an average of 1.9 billion gallons

of water a day, as well as the adjacent Fermi 2 nuclear plant, which uses an additional tens of millions of gallons a day. Such impacts must be evaluated. (**0050-20** [Kamps, Kevin])

Comment: when we look at the Great Lakes, which have many nuclear plants around us, Michigan is the most exposed of all the states in terms of the Great Lakes waters and the possibility of damaging those waters, because the lower peninsula is surrounded on three sides by water. The upper peninsula is totally surrounded by Great Lakes water.

So protecting the Great Lakes is a great issue for us as Michigan citizens in the development of our economy and the sustainability of our population, (**0058-100** [Holden, Anna])

Comment: Another thing I came across was an article in Waste News about the EPA having a mercury reduction program for the Comanche Nuclear Power Station in Texas. They didn't explain how mercury was used. I don't know if it was part of the process or instrumentation or disposal of old instruments or what. But I think if there's any possibility of mercury contamination that should be looked at also. (**0058-110** [McArdle, Ed])

Comment: If there's going to be any heat transference into the Lake into Brest Bay area, how can we sustain that? You know, we used to have Perch Town Derby. The Lake doesn't freeze anymore. There's been impacts. (**0058-134** [Dyson, Ed])

Comment: I would just like to say further that global warming -- nuclear power plants need cooling water. So if you've got hot water coming in, then you have to shut down your reactors. (**0058-26** [Cumbow, Kay])

Comment: Others have already spoken eloquently of the impact on Lake Erie. Just let me restate and affirm that we cannot replace the Great Lakes, Lake Erie, or the River Raisin, the rivers upon which Fermi depend. We cannot live without water, clean, non-radiated water. (**0058-68** [Weber, Margaret])

Comment: Climate change is predicted to decrease water levels in Lake Erie from a little less than 3' to up to 6' in the next 60 -70 years. Predicted decreases in water levels would literally mean that there would be no water in Maumee Bay which is water that is used by other power plants and proposed for Fermi 3. Climate change projected impacts on Western Lake Erie and projected decreasing Lake Erie water levels should be part of the environmental review. (**0082-11** [Bihn, Sandy])

Comment: A determination should be made on the impacts of the up to 49 million gallons of additional heated discharge waters from the proposed Fermi 3. The application uses all of Lake Erie as the source of water available and impacted when in fact the waters used and needed for the plant lie entirely with the Western Basin of Lake Erie. The assessment needs to look at water quantities in Western Lake Erie and Maumee Bay -not all of Lake Erie. Western Lake Erie holds only 5% of the volume of Lake Erie. (**0082-14** [Bihn, Sandy])

Comment: The application talks about the influence of the Detroit River on Toledo's water intake and then fails to include the Toledo water intake in its environmental analysis. This analysis needs to be conducted as part of the environmental assessment. (**0082-18** [Bihn, Sandy])

Comment: Water implications: Lake Erie is the shallowest of the Great Lakes. Nuclear energy uses a great deal of water. As the effects of global warming are realized, Lake Erie, as the

shallowest of the Great Lakes, will be at the greatest risk. Utilization of, and contamination of great quantities of Lake Erie water is not environmentally responsible. The Great Lakes watershed contains a fifth of Earth's freshwater. Protection of the Great Lakes requires that all development projects such as additional nuclear power plants, be considered for long-term generational effects. We cannot replace the Great Lakes, Lake Erie, or the River Raisin, the waters upon which the Fermi(s) depend. We cannot live without water-clean, non-radiated water. (**0082-34** [Weber, Margaret])

Response: *The construction and operation of a nuclear power plant involves the consumption of water. While NRC does not regulate or manage water resources, it does have the responsibility under NEPA to assess and disclose the impacts of the proposed plant on water resources. In Chapters 4 and 5 of the EIS, the NRC staff will independently evaluate impacts of the use of water from Lake Erie on the lake, and will evaluate the effects of the thermal and effluent discharges on the western Lake Erie basin, as well as on other parts of the lake, as appropriate. This evaluation will consider lake conditions during construction and operation of the proposed plant.*

Comment: Also, the surface water analysis seems to only include Monroe, Michigan. It should include all the counties. (**0058-53** [Bihn, Sandy])

Comment: The application only looks at Monroe County for Surface Water -the surface water analysis should include Lucas (Ohio), Ottawa (Ohio), Monroe (Michigan) and Wayne (Michigan). (**0082-22** [Bihn, Sandy])

Response: *The analysis of surface water issues to be presented in Chapters 4 and 5 of the EIS will include all of the Western Basin of Lake Erie and the rest of the lake, as appropriate. Surface water reviews addressed in the analysis will pay particular attention to counties where the water resource is being impacted. Thus, all counties adjacent to the lake will be covered by the analysis. More detailed attention will be paid to those counties, such as Monroe County, where particular issues can be identified.*

Comment: Also the short and long range Great Lakes levels I'm sure should be addressed, and I'm thinking of not just the water depletion because of global warming, but also the short term seiche events -- if I pronounce that right -- when wind blows the water back and forth, and the winds are supposed to be increasing. (**0058-108** [McArdle, Ed])

Response: *The comment refers to the effects of seiches on lake water levels. The effects of seiches on water availability during operations will be discussed in Chapter 5 of the EIS. Seiches also relate to plant safety, which will be addressed in the NRC staff's Safety Evaluation Report for Fermi 3.*

Comment: It appears that at least one stream flows through the DEC property, regulated under Part 301 of the NREPA. We recommend that all stream areas be identified and that any potential impacts be avoided and minimized in the planning process. Stream impacts that can not be avoided in the construction process may require stream mitigation. Typical mitigation for stream impacts include stream restoration using natural channel design principals, maintaining and/or establishing streamside buffers, and installing stream crossings that clear span the stream to bankfull width. (**0079-4** [Browne, Elizabeth M.])

Response: *Swan Creek is the only stream in the vicinity of the Fermi site. Water from the creek would not be used by Fermi 3. However, environmental effects of work on and along the stream, if this occurs, will be evaluated in the EIS.*

Comment: The application does not mention the practice of open lake dumping up to 800,000 cubic yards of sediments by the Army Corps of Engineers for the Toledo shipping channel. The turbidity from the open lake dumping would impact the intake of Fermi 3 and should be reviewed. (**0082-19** [Bihn, Sandy])

Response: *The open lake dumping mentioned in the comment occurred in Maumee Bay, about 3.5 miles northwest of Toledo Harbor Light, and more than 10 miles from the proposed Fermi 3 nuclear plant. The impacts of open dumping projects are addressed by the U.S. Army Corps of Engineers. However, the effects of such dumping, if any, will be evaluated as appropriate in Chapter 7 (Cumulative Impacts) of the EIS.*

Comment: Is the water intake for Frenchtown and Monroe considered in the environmental review? (**0083-30** [Kaufman, Hedwig])

Response: *The effects of Fermi 3 operations on water quality and availability at the water intake structures for Frenchtown and Monroe will be discussed in Chapter 5 of the EIS.*

Comment: The drainage area for the unnamed tributary to Lake Erie at the site is less than two square miles, and does not fall under the state's Floodplain Regulatory Authority, found in Part 31 of the NREPA. A state floodplain permit will not be required from the LWMD at this site.

While Part 31 does not regulate the floodplains of the Great Lakes, it should be noted that the floodplain for Lake Erie affects the project site. The floodplain limits are shown on the Monroe County Flood Insurance Rate Map (FIRM) panel 26115C0259 D, dated April 20, 2000. The 1 percent annual chance (100-year) flood elevation and the 0.2 percent annual chance (500-year) flood elevation for Lake Erie have been computed to be 578.8 feet, National Geodetic Vertical Datum of 1929 (NGVD 29) and 579.7 feet, NGVD 29, respectively. The State building code requires that a critical facility (such as a power plant) constructed in the floodplain, be elevated or flood-proofed one foot above the 0.2 percent annual chance flood elevation.

Frenchtown Township is also designated as a Flood Risk Area (FRA) under Part 323, of the NREPA. Construction standards in the FRA program are similar to those found in the State building code and the National Flood Insurance Program (NFIP). Frenchtown Township has local permitting authority under the FRA Program and the building inspector should be closely involved in review throughout this project. (**0079-2** [Browne, Elizabeth M.])

Response: *The environmental impacts of construction and operation of Fermi 3 on the floodplains for Lake Erie and for Swan Creek will be evaluated in Chapters 4 and 5 of the EIS. Safety issues related to potential floods are outside the scope of the environmental review, but will be evaluated by the NRC staff in its Safety Evaluation Report.*

2.7 Comments Concerning Hydrology – Groundwater

Comment: They [nuclear reactors] also can leak elements such as tritium into the groundwater. (**0059-17** [Barnes, Kathryn])

Comment: They also can leak elements such as tritium into the groundwater. Radioactive elements cause cancer. (**0083-32** [Barnes, Kathryn])

Response: *Groundwater monitoring systems will be installed to detect releases to the subsurface if they occur. The movement of groundwater under the Fermi site, as well as the monitoring systems, will be evaluated in Chapters 4 and 5 of the EIS. The NRC staff will also review the consequences of an accidental release of radionuclides into groundwater in its Safety Evaluation Report.*

2.8 Comments Concerning Ecology – Terrestrial

Comment: The COL includes more recent data on the terrestrial/wetland resources near the project which highlights the very high diversity of plants and organisms in the coastal wetlands of Lake Erie. The COL describes the significant loss of these wetland complexes in the Michigan waters of Lake Erie. Given the diversity of habitats, and the high level of loss of these habitats, the Department opposes any net loss of wetlands for this project. The COL indicates the 126-acres of fill is small based on the U.S. Nuclear Regulatory Commission (NRC) criteria and should not require mitigation. The Department strongly disagrees. All wetland fill must be mitigated, especially in areas of high value habitat that is already incredibly rare in this basin. This is required pursuant to State law and cannot be waived. A complete description of the wetland mitigation project to offset impacts at the site must be included. The following information should be of use to you in developing appropriate wetland mitigation sites and design.

- The diverse coastal wetlands in association with the secluded uplands on the property proposed for development provide good habitat for a variety of wildlife species. Lake Erie is a traditional migration route for waterfowl, marsh birds, wading birds, neotropicals and raptors. Birds such as Great Blue Herons and Great Egrets rest in the trees. They feed in the shallow waters near the shorelines and in the wetlands of the wildlife refuge. Ospreys and Bald Eagles have been observed feeding within the shallow waters of the Fermi 2 Nuclear Power Plant (Department staff personal observations).
- Historically the coastal marshes of the western Lake Erie area are important spring, fall and winter, staging, feeding and resting areas for waterfowl. The insects, invertebrates, crustaceans and mollusks that are supported within these wetland communities are also an important source of food for various fish and wildlife species. The emergent and shoreline habitats also provide opportunities for nesting and brood cover for both game birds and non-game birds. No net loss of undisturbed coastal wetland in the Western Lake Erie area is very crucial to this area. (**0029-8** [Freiburger, Chris])

Response: *The NRC staff will address potential impacts to terrestrial and wetland species and habitats, including wetlands in coastal and inland areas, in Chapters 4 and 5 of the EIS. The EIS will document how Detroit Edison has avoided or minimized impacts on wetlands and other waters of the United States. Potential mitigation measures will also be addressed in Chapters 4 and 5 of the EIS.*

Comment: The environmental section indicates a diverse population of amphibians and reptiles utilizing the variety of habitats located at the FERMI 3 site. Many of these species are dependent on the land/water interface for various life stages, foraging, reproduction, and hibernation. These special needs require minimal disturbance of the wetland areas and also emphasize the need for mitigation for any proposed wetland losses in the vicinity of the project.

The environmental analysis must address specific impacts to these organisms as a result of proposed actions. (**0029-9** [Freiburger, Chris])

Response: *The NRC staff will address potential impacts to amphibians and reptiles as well as potential mitigation measures for these animals in Chapters 4 and 5 of the EIS.*

Comment: The western Lake Erie basin has historically been an important area for duck hunting. Duck hunting parties have continued using marshes and shorelines of this area. Because the area falls within important bird migration corridors it is critical to minimize any habitat loss or impart any activity that would unnecessarily disturb wildlife.

For current project operation, buoyed areas limit fishing and boating access in the vicinity of the plant. The Department acknowledges the importance of protecting the facilities and believes that current standards seem appropriate. Please address any proposed changes in current practices. (**0029-11** [Freiburger, Chris])

Comment: One of Wildlife Habitat Council's core activities is our certification of those corporate locations that maintain wildlife management programs. About 500 corporate habitat programs in 17 countries are now certified by Wildlife Habitat Council, including the one at DTE Energy's Fermi 2 Power Plant. That is how I am acquainted with the history of land stewardship at Fermi 2.

Certification of a program by Wildlife Habitat Council requires substantial documentation of valid habitat enhancement activities, which DTE Energy's Fermi 2 plant has provided regularly since the year 2000. Plant employees help maintain about 650 acres of wildlife habitat. They have built nesting platforms for raptors and planted native plant meadows. The Fermi 2 wildlife team helps conserve 48 acres of vital coastal wetlands by battling invasive plants like purple loosestrife and phragmites; in so doing they preserve rare wetland plants as well as important stopover and over-wintering habitats for migrating waterfowl and raptors.

Fermi 2's location makes these actions all the more important. The plant is located along major migratory flyways for songbirds and raptors, which pass through by the millions each spring and fall. Migratory bird populations are threatened by habitat loss not only on each end of their journey, but also along the way as they seek necessary stop-over sites to rest and re-fuel.

At the same time, the Fermi 2 plant property includes coastal marsh wetlands, which have nearly disappeared from the southern Great Lakes. Wetlands are the most productive and diverse temperate zone ecosystems, and their loss means the loss of many species. So Fermi 2's stewardship has regionwide impact. (**0082-1** [Gruelle, Martha])

Response: *The NRC staff will address potential impacts to wetlands (including coastal marshes) and to shorelines with respect to their use as waterfowl and other migratory bird habitat in Chapters 4 and 5 of the EIS.*

Comment: The wetlands on the property have been identified by DEC consultants and reviewed by MDEQ staff under MDEQ Wetland Identification Program (WIP) File 08-58-0003-WA. The WIP report dated November 7, 2008, identified the location and regulatory status of each wetland area under the authority of Part 303 of the NREPA. Based on the WIP report, a significant portion of the DEC property contains regulated wetlands, with most of the wetlands on the site being Great Lakes coastal wetlands. With historic losses of greater than 95 percent of the coastal wetlands of western Lake Erie, the wetlands on site represent a very important

and rare natural resource for the State of Michigan. The Environmental Report describes the wetland impacts as moderate. In fact, it appears that the project as proposed would be one of the largest impacts to coastal wetlands in the history of Michigan's wetland statute.

Under Part 303, permits are required for any wetland dredging, filling, draining, and/or maintaining a use or development in a wetland. The location, type, function, and value of the wetlands on site should be considered during design and any impacts avoided and minimized to the greatest extent possible. Any proposed impact areas should be identified (including impacts from temporary and permanent parking, construction activities, and transmission lines) and reviewed through an environmental assessment of the site that evaluates plant and animal species and habitat diversity, water quality functions, fish and wildlife habitat, the location of rare or imperiled communities, threatened and endangered species, and any other important features of the wetland areas. All feasible and prudent alternatives to temporary and permanent impacts should be considered (including alternative configurations, acquiring adjacent properties, etc.). If the project will be phased, an overall site plan will be needed and reviewed as part of the alternatives analysis for the first permit application. Wetland impacts will require wetland mitigation and a combination of wetland restoration and preservation of on-site or off-site rare wetland communities (e.g., Lake Erie coastal wetlands, lake plain prairies, etc.) should be considered. (**0079-3** [Browne, Elizabeth M.])

Response: *The NRC staff will address potential impacts to wetlands in Chapters 4 and 5 of the EIS. The EIS will also include a cumulative analysis of wetland losses on the western shore of Lake Erie resulting from the Fermi 3 project combined with past and reasonably foreseeable future activities.*

Comment: Part 325, of the NREPA, regulates construction activities such as fills, docks, seawalls, dredging, outfall/intake pipes etc. and occupations of Great Lakes public trust bottomlands and waters. Part 325 requires the DEQ to protect the natural resources, public trust, and riparian rights of property owners when issuing a permit for construction activities in the Great Lakes.

An application for a permit will be required pursuant to Part 325 for any construction activity in Lake Erie below the natural ordinary high water mark at the site, including the wetlands connected to Lake Erie north and south of the power plant complex. (**0079-5** [Browne, Elizabeth M.])

Comment: Stream crossings and wetlands will be affected by the construction of Fermi 3 and the associated transmission lines. The Michigan Department of Environmental Quality (MDEQ) should be contacted to determine if permits are required for this activity in wetlands and stream crossings. Pursuant to the Natural Resources and Environmental Protection Act, the State of Michigan regulates certain activities in wetlands and inland lakes and streams. Development that would impact wetlands may require a permit for which this office may have review authority under the FWCA. In the review of these permit applications, we may concur with or without conditions or object to permit issuance depending on whether the proposed work may impact the Service's trust fish and wildlife resources. We recommend you contact the MDEQ, Land and Water Management Division, Southeast Michigan District Office in Warren at 586/753-3700 for information concerning the need for permits under State law.

Wetland impacts should be avoided or minimized to the maximum extent possible. Any wetlands unavoidably destroyed during power plant and transmission line construction should be compensated by enhancing existing low quality wetlands or creating wetlands equivalent to

those destroyed adjacent and/or contiguous with those wetlands impacted. This approach is consistent with the Service's mitigation policy. (**0087-3** [Czarnecki, Craig A.])

Response: *The NRC staff will address impacts to wetlands, waterways, and other natural resources, including possible mitigation measures, in Chapters 4 and 5 of the EIS. The EIS will note each Federal and State environmental permit required for the project, but Detroit Edison will apply for the permits independently of the EIS.*

Comment: EPA encourages selection of alternatives with the least impact to wetlands. Therefore, we recommend a complete evaluation of the wetlands impacted by each feasible alternative site. We also encourage facility footprints within the plant site that will avoid or minimize wetlands impacts. If there are wetlands impacts, we recommend characterization and mitigation information be included in the EIS and not deferred to the permit stage. (**0040-2** [Miller, Anna]; **0080-2** [Westlake, Kenneth A.])

Response: *In Chapter 9 of the EIS, the NRC staff will describe the potential environmental impacts (including potential impacts to wetlands) of siting the project at alternative sites. Chapter 4 of the EIS will describe how ground-disturbing activities at the proposed site were planned to minimize wetland impacts, characterize unavoidable wetland impacts, and discuss possible wetland mitigation measures.*

Comment: We are committed, Detroit Edison, DTE Energy is committed to environmental stewardship. We've done that at Fermi site specifically in the form of the Wildlife Habitat Council certification, Clean Corporate Citizen designations, and the Michigan Department of Environmental Quality. We've set aside more than 600 acres of that site for inclusion in the Detroit River International Wildlife Refuge. We feel that the environment is not only crucial to this particular site, but it's a motto that we have throughout our company in terms of respect that's a core value, and to respect our community and our environment is really important to us. (**0058-10** [May, Ron])

Comment: It should also be noted during the development of the EIS that DTE and the US Fish and Wildlife Service have entered into a cooperative management agreement for 656 acres at the Fermi Power plant for the Detroit River International Wildlife Refuge. Refuge staff work closely with DTE on wildlife management activities. The Refuge has also acquired 65 acres (i.e., Fix Unit) at the mouth of Swan Creek immediately adjacent to the Fermi site. Refuge staff will continue to be actively involved in wildlife management throughout the planning process. (**0087 1** [Czarnecki, Craig A.])

Response: *The NRC staff will review and evaluate habitat loss and associated impacts, including areas currently within the Detroit River International Wildlife Refuge, in Chapters 2, 4, and 5 of the EIS.*

Comment: Paragraph 2.4 Ecology (Page 2-321) and Table 2.4-2 (Page 2-888). 216 Plant Species are listed as found on the property. This is an impressive list, but does not include plants that should be present but are not. Industrial activity has disturbed this wetland ecosystem (the estuary of Swan Creek). Some plant species such as wild rice (*Zizania*) and Native Reed Grass or Cane (*Phragmites communis*) have been extirpated (re: Michigan Waterfowl Management, Miles Pirnie, 1935). (**0082-28** [Micka, Richard])

Response: *The comment presents information about the site prior to development that will be included in the affected environment discussion in Chapter 2 of the EIS. The cumulative loss of*

rare plants and their habitat along the western shore of Lake Erie will be considered in Chapter 7 of the EIS.

Comment: There are no specific locations for the proposed action. Therefore, the following list provides federally listed or candidate species information at the county level.

1. St. Clair: Indiana bat, rayed bean, Eastern prairie fringed orchid
2. Washtenaw: Indiana bat, Eastern massasauga, Mitchell's satyr butterfly, Eastern fringed prairie orchid
3. Wayne: Indiana bat, Eastern massasauga, Northern riffleshell, rayed bean, Eastern prairie fringed orchid
4. Lenawee: Indiana bat, Eastern massasauga, rayed bean
5. Monroe: Indiana bat, Karner blue butterfly, Northern riffleshell, rayed bean, Eastern prairie fringed orchid.

For future endangered and threatened species list requests and consultations with the Service, refer to our endangered species and technical assistance website at http://www.fws.gov/midwest!endangered/section7/s7process/index.htm.

Further, please contact the Michigan Department of Natural Resources Endangered Species Assessment website, www.mcgi.state.mi.us/esa and contact Lori Sargent at sargentl2@michigan.gov or 517/373-1263 for information regarding the protection of threatened and endangered species under state law. State law requires a permit in advance if any work that could potentially damage, destroy or displace State listed species. (**0087-2** [Czarnecki, Craig A.])

Response: *The NRC staff will address potential impacts to Federal and State rare, threatened, and endangered species and habitats in Chapters 4 and 5 of the EIS. NRC will also comply with Section 7 of the Endangered Species Act by preparing a biological assessment of potential impacts to Federally listed species and completing any necessary formal consultation with the U.S. Fish and Wildlife Service and National Marine Fisheries Service. Any permits needed to comply with laws that protect State-listed threatened and endangered species would be listed in the EIS, but, as noted above, Detroit Edison will apply for the permits independently of the EIS..*

Comment: 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. (**0037-1** [Sargent, Lori], **0086-1** [Sargent, Lori])

Response: *The presence of the eastern fox snake on the site will be acknowledged in Chapter 2 of the EIS. The NRC staff will address potential impacts to the eastern fox snake and its habitat and describe potential mitigation in Chapters 4 and 5 of the EIS.*

Comment: The following references in the Environmental Report Highlight Lotus Ecology: Appendix 2A, Flora, page 2-877. Appendix 2-B, Life Histories of Threatened and Endangered Species, pages 2-888. Table 2.4-2, page 2-373, page 2-321, paragraph 2.4. Ecology, page 2.333, paragraph 2.4.1.2.2.2 really, American Lotus. Page 2-395, Table 2.4-6, Wildlife Habitat Council for July 2000, page 2-432, figure 2.4-17, important species transmission corridor.

These references to Michigan symbol for clean water of the American Lotus, are clearly indicative that the applicant has conducted due diligence in the COLA process. We appreciate that.

The Lotus Garden Club conducts tours of the Lotus beds in mid summer. Through the generosity of local utilities, the public is able to see their floral heritage on our waterfront. These tours take place after coordination with the utilities and in keeping with the requirements of Homeland Security.

Fermi unit 3 is situated in Laguna Beach, which is noted for extensive beds of American Lotus, *Nelumbo lutea*. This circumstance provides a much needed sanctuary for this threatened species. The Nuclear Regulatory Commission needs to know that the utilities have expended themselves well beyond the call of duty to host Lotus tours in those areas that are not off limits. This allows citizens of Monroe and areas to enjoy their rich heritage without compromising the integrity of any sensitive areas. But more importantly it has brought all of the utilities together in a cooperative spirit to promote biodiversity on their private holdings. The community benefits from this cooperation.

At one point in time the American Lotus was nearly extinct on the western shores of Lake Erie. Thanks to the likes of DTE Energy and other industrial concerns, the Lotus have come back. This provides an excellent model for restoration of other species that have been displaced by development over the recent years. We encourage you to make a list of those missing plants to see if they can be restored.

And I'd like to add to that. This brochure that was out front says it all. Every time you look at a brochure from Detroit Edison, or Fermi, or the International Wildlife Refuge, or the City or County of Monroe, you see the American Lotus. And the utilities were very influential with the Chamber of Commerce and the community as a whole to appear before the State of Michigan, and it took a three year process, to have the American Lotus listed as American's symbol for clean water. And we thank you for your assistance and success in this.

And the Lotus is rather like the canary in the marsh. Lotus clean the wetlands and they are a symbol of rebirth and life. They show that the water and the air is reasonably clean, and it gives habitat to flora and fauna of all types. The sturgeon are coming back, there's a lot of good signs. Look how well our eagles are doing. And each year when we have our Lotus tour, we give away a bag, or some similar gift like this, to all of our esteemed visitors. (**0058-123** [Micka, Jeanne])

Comment: These references to Michigan's Symbol for Clean Water (American Lotus) are clearly indicative that the Applicant has conducted due diligence in the COLA Process. We appreciate that.

The Lotus Garden Club conducts tours of the Lotus Beds in mid-summer. Through the generosity of local Utilities, the Public are able to see their Floral Heritage on the waterfront. These tours take place after coordination with the Utilities and in keeping with the requirements of Homeland Security.

Fermi Unit 3 is situated in Laguna Beach which is noted for extensive Beds of American Lotus. This circumstance provides a much-needed sanctuary for this threatened species. The Nuclear Regulatory Commission needs to know that the Utilities have extended themselves beyond the call of duty to host LotusTours in those areas that are not off limits. This allows the citizens of Monroe to enjoy their rich heritage without compromising the integrity of any sensitive areas. But more importantly, it has brought all of the Utilities together in a cooperative spirit to promote biodiversity on their private holdings. The Community benefits from this cooperation.

At one point in time, the American Lotus were nearly extinct on the West Shore of Lake Erie. Thanks to the likes of DTE Energy and other industrial concerns, the Lotus have come back. This provides an excellent model for restoration of other species that have been displaced by development over the years. We encourage you to make a list of those missing plants to see if they can be restored. (**0082-26** [Micka, Jeanne])

Response: *The NRC staff will address impacts to American lotus and other rare, threatened, and endangered species in Chapters 4 and 5 of the EIS. The EIS will also consider the cumulative loss of rare plants and their habitat along the western shore of Lake Erie.*

Comment: We recommend that the proposed transmission line corridors follow established right-of-ways to the maximum extent possible and to avoid large, contiguous tracts of forests. Utilizing existing footprints will diminish forest fragmentation and unnecessary habitat destruction. Studies indicate forest fragmentation has resulted in declining populations of several species of neotropical passerines. If NRC presently knows or when they know the total acreage of impacts to forested and wetland habitats, we request this information be sent to us. (**0087-4** [Czarnecki, Craig A.])

Response: *In Chapter 4 of the EIS, the NRC staff will address impacts to forest habitats, including forest fragmentation impacts and impacts to neotropical passerines and other forest-interior species, resulting from transmission line construction.*

2.9 Comments Concerning Ecology – Aquatic

Comment: Billions of fish and larvae are sucked into the station's cooling condensers and killed upon discharge with the heated water, hotter than the intake temperature. These discharges include major reductions of fish species and habitat. (**0019-5** [Schemanski, Sally])

Comment: My concern is thermal pollution of our Great Lakes, specifically, Lake Erie.

Already several energy plants on shores of Lake Erie are polluting the waters in the western basin (which is about 24 feet deep). Trenton Channel coal plant, Monroe coal fire Plant (part of the Detroit Edison complex); Whiting coal plant at Luna Pier; Davis Besse nuclear plant at Oak

Harbor and Bay Shore coal plant at Maumee Bay all send hot water into the Lake to the detriment and even destruction of fish and algae blooms and are creating a dead zone in the Lake.

My request is for cooling towers to mitigate the thermal load. The plans for Fermi 3 include only one cooling tower. More are needed. New environmental study is needed to assess real needs. NRC inspection needs to be increased in this regard. (**0024-1** [Hungerman, Marie Gabriel])

Comment: The environmental report utilized phytoplankton and icthyoplankton results from studies conducted for the FERMI 2 project. While the vicinity is most likely acceptable for use, the most recent of this data is from the early 1990s. This data is probably not current enough to evaluate the potential effect of the FERMI 3 project when it goes on line. The report describes the significant improvements in water quality in Lake Erie, and it continues to improve. This may have changed the composition and abundance of these organisms. Therefore:

1. Are the seasonal phytoplankton populations by number and species known sufficiently well to detect possible changes in the receiving waterbody?
2. Are the seasonal phytoplankton populations by number and species known sufficiently well to detect possible changes in the discharge area and adjacent waters?
3. Relative to phytoplankton of the discharge area adjacent waters and the receiving waterbody, is it known or predicted what proportions of the populations are exposed to stresses caused by plant operation?
4. Are the effects of such exposures on phytoplankton populations (e.g., impairment or stimulation of productivity, time-temperature tolerances, population shifts both local and waterbody-wide, etc.) known or predicted?
5. Are the seasonal populations of benthic and attached algae in the discharge area and adjacent waters known sufficiently well to detect possible changes?
6. Are the effects of the plan operation on populations of benthic and attached algae considered, known or predicted? (**0029-3** [Freiburger, Chris])

Comment: The COL has a fairly comprehensive review of the aquatic invertebrate populations in the vicinity of the proposed project. However, given the current changes in water quality and the effects of invasive macro invertebrates such as dreissenid mussels (zebra and quagga), this composition can change significantly between the current review and the start up of the proposed project. Therefore:

1. Are the macro invertebrate populations in the discharge area and adjacent waters know sufficiently well to detect possible changes?
2. Are effects of plant operation on the macroinvertebrate populations considered, known or predicted?
3. Are the aquatic macrophyte populations in the discharge area and adjacent waters known sufficiently well to detect possible changes?
4. Are effects of plant operations on aquatic macrophyte populations considered, known or predicted? (**0029-4** [Freiburger, Chris])

Comment: The report includes data from joint MDNR and U.S. Fish and Wildlife Service (USFWS) fish surveys from 2004. This information is the most current public information on these fish populations. The COL reviewed substantial improvements to fish populations in the

Lake Erie basin and the significance of those populations to the economy of the vicinity. Both commercial and recreational fisheries in the western basin of Lake Erie are sources of revenue for the local economies. This data will be 15-years old however by the time the proposed project goes on line. Therefore:

1. Is the seasonal abundance of fish eggs and larvae by species known sufficiently well to detect possible changes in the discharge area and adjacent waters?
2. Is it known or predicted what portion of the populations of fish eggs and larvae are exposed to stresses caused by plant operation?
3. Are the effects of such exposures on fish eggs and larvae considered known or predicted?
4. Is it known or predicted what impact such effects will have on fish populations in the discharge area, adjacent waters and the receiving waterbody?
5. Are the seasonal abundance and habits of adult fish by species known sufficiently well to detect possible changes in the discharge area and adjacent waters?
6. Is it considered, known or predicted what effect operation of the facility will have on these fish and their activities? (**0029-5** [Freiburger, Chris])

Comment: Detroit Edison's Environmental Report holds that there are currently no problems with phosphorus contamination or algae in Lake Erie, which is false. NRC should address these issues, and the cumulative impacts that can be expected from adding yet another reactor at the Fermi power plant site. (**0050-17** [Kamps, Kevin])

Comment: Fermi 3 would harm Lake Erie's remarkably productive fisheries. Fermi 3's water usage would worsen the impingement and entrainment of Lake Erie biota already occurring at the numerous large-scale thermo-electric power plants sited on its shores. Negative impacts, including fish kills, must be prevented, to protect sports fisheries as well as Native American fishing rights recognized by legally-binding treaties signed by the U.S. federal government. Harm to all life stages of Lake Erie biota must be analyzed by NRC, and mitigated by DTE at Fermi 3. (**0050-21** [Kamps, Kevin])

Comment: If you've got too hot of water going out, you also have to shut your reactors because it ruins habitat for fish, for other macro-invertebrates. And this happened recently in Europe and also in the United States, when they had heat waves, that they had to shut down reactors because either the water coming in was too hot or going out was too hot.

Up at the Bruce, there normally is ice that covers Lake Huron up by there. But since the Bruce has been online, ice doesn't form around the Bruce. That ice further -- it serves to reflect the sun's radiation. If you've got too hot of water everywhere, you're not going to have that ice reflecting the sun's rays. (**0058-27** [Cumbow, Kay])

Comment: When Davis Besse was built, the permit was granted in 1989 -- or 1979, excuse me -- the Ohio Sea Grant people made the following statement: No new plants, and they were referring to power plants, should be constructed anywhere in the western basin of Lake Erie. If these suggestions are followed, new plants can be constructed on Lake Erie, and they meant the central and the eastern basin, without harming the valuable and growing fishery.

This statement was made by Drs. Reutter and Herrndoff from Ohio State University's Sea Grant program. Since the statement clearly says that no new power plant should be constructed here

in the western basin, and the only place that they should be constructed, if in Lake Erie, is the central and eastern basin.

Fermi 3 is planned to be located in the shallowest, fishiest, most vulnerable waters of the Great Lakes, and they would combine with five other power plants that currently draw over 3 billion gallons of water in this area a day. These are the shallowest 24-foot of water in the Great Lakes. (**0058-45** [Bihn, Sandy])

Comment: And I wish that the Environmental Impact Statement would include the following considerations, which when I reviewed it [Environmental Report], it did not.

Also, there would be additional heated discharge waters from this plant, 49 million gallons of water in addition to the 3 billion. I think there should be an assessment of all the five plants and the cumulative impacts they're currently having. And then the additional impact on all these factors with the new plant. (**0058-48** [Bihn, Sandy])

Comment: the impingement and entrainment estimates need to be updated. (**0058-54** [Bihn, Sandy])

Comment: Nuclear reactors cause thermal pollution and kill fish. (**0059-16** [Barnes, Kathryn])

Comment: The application uses phosphorous data from 1997 -2003 and says phosphorous (algal blooms) is not a problem. Not true. Research clearly shows that since 1995 dissolved phosphorous and algal blooms including microcyctis, in the Maumee River and Western Lake Erie are increasing. Ohio EPA has a Phosphorous Task Force trying to find ways to reduce the increasing green waters. The Lake Erie Protection Fund and the USEPA Great Lake's office are currently seeking grant proposals to find ways to reduce phosphorous and algal blooms in Western Lake Erie. The environmental assessment needs to include impacts on phosphorous and nutrient growth and algal blooms from the thermal use of up to 49 million gallons a day. (**0082-20** [Bihn, Sandy])

Comment: The fish impingement/entrainment discussion needs to be updated from Fermi 2 estimates. The assessment needs to look at the cumulative impact of adding one more fish killing source.. and the decreasing yellow perch populations and the increased controls on commercial fishermen in Ohio. The environmental assessment should include these factors. (**0082-23** [Bihn, Sandy])

Comment: Nuclear reactors cause thermal pollution, and kill fish. (**0083-31** [Barnes, Kathryn])

Comment: Of primary concern are issues related to fish entrainment and impingement, water quality, and wetlands. The application includes lengthy discussions of species of concern which do require special attention, but the EIS must include monitoring for all species within the area of impact. Many wildlife species that utilize the refuge and fish species in the vicinity of the project are important game and non-game animals and fish. This includes species that perform a vital role in the ecosystem as forage. (**0029-1** [Freiburger, Chris])

Comment: Use of Lake Erie, our warmest Great Lake, to assist with cooling water from the proposed new plant will have a detrimental effect on the wildlife of Lake Erie, a source of fresh water that is still recovering from significant pollution from the mid-20th century. (**0039-6** [Mitchell, Rita])

Comment: The environmental impact on Lake Erie with thermal and radiation to the Lake water, fish, and wildlife in the region is extremely objectionable. (**0041-4** [Englund, Lance])

Response: *The EIS analysis will use the most recently available information to characterize the existing ecological conditions in the vicinity of the Fermi site and to analyze potential impacts from the project on aquatic ecosystems. The NRC staff will evaluate the impacts related to construction and operation, including impingement, entrainment, chronic and acute thermal impacts, and water quality (including phosphorus levels). The NRC staff will also address cumulative impacts to the aquatic environment in the vicinity of the Fermi site. The NRC staff recognizes the dynamic nature of Lake Erie and the Great Lakes, and will consider the possibility of continued change in the ecosystem in its assessment. Existing conditions will be described in Chapter 2 of the EIS. The impacts of construction and operation on aquatic ecosystems and water quality will be discussed in Chapters 4 and 5 of the EIS. The cumulative impacts of construction and operation will be presented in Chapter 7 of the EIS.*

Comment: Western Lake Erie and its shallow waters provide among the best habitat for walleye fishing in the world. The thermal load of a new reactor sited at Fermi (as well as existing facilities at Fermi and Davis-Basse east of Toledo, Ohio) would have a detrimental effect on this habitat. This can be mitigated by the construction of new cooling tower at the Fermi facility. However, the current plans for Fermi do not envision this construction, and would perhaps make the construction of this new facility cost-prohibitive. (**0038-2** [D'Amour, James Carl])

Response: *The proposed design for the Fermi 3 nuclear plant identifies the construction of a new cooling tower on the Fermi site. The NRC staff will assess potential impacts to aquatic biota in Lake Erie, including the walleye and other fish species, from thermal discharge of the proposed Fermi 3 nuclear plant in Chapter 5 of the EIS. The cumulative impacts of construction and operation will be presented in Chapter 7 of the EIS.*

Comment: And I wish that the Environmental Impact Statement would include the following considerations, which when I reviewed it [Environmental Report], it did not.

Also, the Maumee Bay estuary was not delineated in the Environmental Impact Statement. The impact statement used Fermi 2 data, which are very outdated, for accumulative fish impingement and entrainment impacts from the plant. (**0058-47** [Bihn, Sandy])

Comment: When the permit for Davis Besse was granted, the Ohio Sea Grant people made the following statement: No new plants (power) should be constructed anywhere in the Western Basin of the Lake (Erie). If these suggestions are followed, new plants can be constructed on Lake Erie Without harming the valuable and growing fishery. J.M. Reutter and C.E. Herdendorf, Environmental Impact Appraisal of the Davis Besse Nuclear Power Plant 1979

Since the statement clearly says that no new power plants should be constructed in Western Lake Erie, then the only place that new power plants should be considered would be in the Central and Eastern Basins of Lake Erie. The Fermi 3 nuclear power plant is planned to be located in the shallowest, fishiest waters of Lake Erie and the Great Lakes. Lake Erie has more consumable fish than all the other Great Lakes combined and a majority of Lake Erie's fish are in the Western Basin of Lake Erie (which includes Maumee Bay and the Maumee River). The average depth of Lake Erie in the area of the plant is but 24' and the average depth of the Maumee Bay estuary is only 5'. The proposed Fermi 3 nuclear power plant would draw up to 49 million gallons of water a day from Lake Erie and Maumee Bay and kill millions more fish. Fermi 3 would be the 6th power plant killing more fish and heating more water causing added

ecological impacts on already stressed green waters. When I was driving down traveling on Bayshore Rd. last night, I could visibly see the Consumer's Whiting Plant, the DTE Monroe Plant, Fermi 2, First Energy Bayshore and the smoke from Davis Besse. Obviously, the plants are within a 20 mile radius and the use of the water, fish kills and thermal plumes from the power plants impact the shallow waters of Lake Erie and Maumee Bay. (**0082-10** [Bihn, Sandy])

Comment: The application says there are no estuaries near the plant. This is not true . The shallow fishy average 5' depth Maumee Bay estuary exists west of the plant and needs to be assessed as part of the environmental impact study. (**0082-12** [Bihn, Sandy])

Response: *The EIS analysis will use the most recently available information about aquatic biota and water quality to characterize the existing conditions in the vicinity of the Fermi site and to analyze potential impacts from the project on the aquatic ecosystem. The staff will also review historical data, including past recommendations related to power development in the Western Basin of Lake Erie, in its review. Existing conditions will be described in Chapter 2 of the EIS. The impacts of construction and operation (including impacts associated with impingement, entrainment, and thermal discharge) will be discussed in Chapters 4 and 5, respectively. The cumulative impacts of construction and operation will be presented in Chapter 7 of the EIS. Information about the conditions in Maumee Bay and potential impacts to Maumee Bay from the proposed project will be evaluated, as appropriate, in the EIS.*

Comment: One statement in the Environmental Impact Statement [sic - Environmental Report] that really stood out to me was that there is no phosphorus problem in Western Lake Erie, and we have no algae problem. Let me tell you folks, go out there in the summer. Last year researchers tell me that the microcystis in the algae was the worst that they've ever seen. We're going back to the `70s in terms of warm water, decreasing water caused by decreasing water level and increased nutrients in the water, the impact of lower water levels and increased nutrients. And what would happen from this plant doing more warming of the water to those factors needs to be considered.

There is a new algae out there called *Lyngbya wollei* that seems to be harbored here in the Monroe area. And we need to look at what the impact of that is and why it came, and then how this new plant might contribute more to those type of algae. (**0058-52** [Bihn, Sandy])

Comment: A new form of algae -*Lyngbya wollei* -is in Maumee Bay and Western Lake Erie. This benthic algae is spreading in Maumee Bay and Western Lake Erie. It appears that the *Lyngbya* thrives in what is known at Warm Water Bay at DTE's Monroe coal fired 1.9 billion gallons per day warm water discharge. The warm water combined with the sewage from the River Raisin appear to provide the ideal environment for *Lyngbya* to thrive. What will the impact of Fermi 3 be on the spread of *Lyngbya*? Should DTE be required to do mitigation at the Monroe coal fired plant because of the *Lyngbya* problem? (**0082-21** [Bihn, Sandy])

Response: *The NRC staff will consider potential effects of the proposed facility on water quality in Lake Erie and the potential influences of construction and operation of the proposed facility on the spread of Lyngbya wollei. These topics will be discussed in Chapters 4 and 5 of the EIS.*

Comment: The environmental assessment must address the effects on the Lake and ecosystem of the water cooling needs of the reactor. The current report does not address the projected scientific reality of dramatically lower water levels in Lake Erie. (**0059-49** [Wolfe, Janet]; **0083-3** [Wolfe, Janet])

Response: *The NRC staff will consider water use (including consumptive water use) relative to the inflow and volume of water for Lake Erie and the Western Basin. The effects of water levels in Lake Erie will also be considered in the analysis. Existing conditions will be described in Chapter 2 of the EIS. The impacts of construction and operation will be discussed in Chapters 4 and 5, respectively. The cumulative impacts of construction and operation will be presented in Chapter 7 of the EIS.*

Comment: Endangered Species Act: No species listed by NMFS as threatened or endangered, or species proposed for listing occur in Lake Erie. Additionally, there is no critical habitat designated by NMFS in the area and no proposed critical habitat in the area. There are also no candidate species under NMFS jurisdiction that occur in the project area. As such, no further coordination with NMFS on the effects of the action on listed species or their critical habitat is necessary and NMFS does not anticipate the need for consultation pursuant to Section 7 of the Endangered Species Act of 1973, as amended, for the subject Federal action. (**0085-1** [Colligan, Mary A.])

Comment: As noted above, as no species listed as threatened or endangered by NMFS occur in the action area, no consultation pursuant to Section 7 of the ESA is necessary for the NRC's proposed action. Based on the information provided herein, NMFS does not anticipate participating in the public meeting or site audit. Additionally, we do not anticipate providing further scoping comments or comments on any draft or final EIS related to this action. NMFS appreciates the opportunity to provide the NRC with information on our trust resources and we look forward to continuing to work cooperatively with you on minimizing impacts of NRC actions to NMFS trust resources. (**0085-3** [Colligan, Mary A.])

Response: *The NRC staff will evaluate the potential impacts on threatened and endangered species from construction and operation of the proposed Fermi 3 nuclear plant in Chapters 4 and 5 of the EIS. As stated in the comment, no species listed as threatened or endangered by NMFS occur in the action area, and no consultation with the NMFS pursuant to Section 7 of the ESA will be necessary for the proposed action.*

Comment: Essential Fish Habitat and Fish and Wildlife Coordination Act: The Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act require Federal agencies to consult with one another on activities that may adversely impact fisheries resources and their habitats. Since Essential Fish Habitat has not been designated, pursuant to the MSA, for species in Lake Erie or other Great Lakes there is no requirement to consult under that authority. Although anadromous fish resources and their habitats may be impacted by the activity, NMFS does not have sufficient staff resources to engage in the review or consultation on this activity pursuant to the Fish and Wildlife Coordination Act. (**0085-2** [Colligan, Mary A.])

Response: *As stated in the comment, Essential Fish Habitat has not been designated, pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, for species in Lake Erie or other Great Lakes. Therefore, no consultation on Essential Fish Habitat will be conducted for the Fermi 3 project.*

Comment: Toxic discharges from Fermi 3 would threaten Lake Erie's fragile ecosystem. Biocides, such as chemicals used to control zebra mussels, would be used in significant quantities and then released into Lake Erie. Cleaning solvents, heavy metals, and even fossil fuels integral to Fermi 3's operations would also be released into Lake Erie. Over a decade ago,

the U.S.-Canadian International Joint Commission called for the virtual elimination of toxic chemicals into the Great Lakes, a goal Fermi 3 would not meet. Lake Erie, already suffering from phosphorus contamination and risking a return of algal blooms and consequent dead zones, is too fragile for yet another large-scale source of significant toxic contamination. (**0050-15** [Kamps, Kevin])

Comment: Also in the chemical area, the Zebra Mussel control and how's that accomplished. I presume there's chemicals involved in that. Zebra Mussels have shut down nuclear plants. I'm thinking of one article I read about in New York. (**0058-109** [McArdle, Ed])

Response: *Potential effects of chemical releases on aquatic resources, including biocides used to control organisms such as zebra mussels that can foul cooling water systems, will be evaluated in Chapter 5 of the EIS.*

2.10 Comments Concerning Socioeconomics

Comment: In addition to being a good corporate citizen, DTE Energy is a very substantial piece in the Michigan economic puzzle. As noted earlier in this text, I am the Chair of the SEMCA Workforce Board. SEMCA is officially designated by the State of Michigan to serve as the Michigan Works Agency for Monroe and Wayne Counties, excluding the city of Detroit, under the Federal Workforce Investment Act (WIA). As a Michigan Works Agency, our primary responsibility is to assist the residents of our region with obtaining employment. To help them achieve employment in high demand occupations and/or growing industries, we utilize State and Federal resources to provide them with the funding for relevant training. In the current changing economy, our workforce has experienced a substantial loss of jobs and we find that their current skills may not match those needed in the jobs that are currently available. Consequently, the unemployment rate in our region is at a 20 year high, with Monroe Co. at 9.6%. Wayne Co. incl. Detroit at 10.6% and Lucas Co. Ohio, incl. Toledo at 9.2%. It is in this context that I provide the following to you today. I am strongly urging the NRC to include in the scope of the Environmental Impact Statement for the Fermi 3 Nuclear Power Plant a full analysis of the economic benefits of constructing and operating such a plant in our region. (**0010-2** [Mahoney, Charlie])

Comment: The jobs created by Fermi 3 would be a significant boost to this region and state during the construction phase, the Nuclear Energy Institute estimates that 2,400 construction jobs would be created. And they say a plant of this size would require DTE to add 700 permanent employees. And we know how real these jobs are: DTE currently has about 2,000 employees in Monroe Co. alone. None of these figures speak to the tremendous # of spin-off jobs created by the businesses that would serve the plant and its employees. Before I close, let me reassure you that this region knows the importance of providing our workforce with the skills necessary to obtain employment in the energy industry. Many of our laid-off workers have work experience or skills that make them ideal candidates for retraining in energy industry occupations. As I am sure you will hear in the testimony of others, Monroe Community College and other institutions are involved in energy occupation training and continue to work with DTE and others to assure their programs are responsive to the specific current and future needs of the energy industry. To this end DTE Energy and Monroe Community College have joined to create a program for a Nuclear Engineering Technology Associates Degree which began this month. And we at SEMCA place a high priority on encouraging careers in the energy field and providing training funding for appropriate candidates. (**0010-4** [Mahoney, Charlie])

Comment: Now that there's a proposal for a Fermi 3 to be built, this will open many job opportunities for our community. (**0058-112** [Ellison, Jacob])

Comment: If the plant comes to fruition it will add jobs and further economic enhancement in all areas of distress in the County. (**0058-113** [Smolinski, Myron])

Comment: The construction of another unit at Fermi would benefit the whole community, with hundreds of good paying jobs. These jobs contribute millions of dollars to the local economy. And a badly needed revenue source for our local and state governments, so that they may continue to provide the services that we have come to expect. This will affect all business, from the grocery store, restaurant, the gas station, the car dealer, and the landlords with housing to rent. Building another unit at Fermi would be a win for everyone in the community. (**0058-146** [Sweat, Ron])

Comment: A new nuclear plant would benefit the economy with an influx of good paying jobs for skilled workers and well educated professionals. The five-year construction phase would alone create as many as 2,400 jobs. Then when the plant begins operation, 400 to 700 permanent high-tech jobs would be produced, many of which require professional degrees.

In addition, a new nuclear plant would create another 400 to 700 jobs and businesses that supply goods and services to support the plant. Many of these businesses would be the high-tech that we would need, and they're going to attract the bright, young professionals who are at the core of the most vibrant economics in the County today. (**0058-15** [Mentel, Floreine])

Comment: Finally, Detroit Edison's significant investment in a new nuclear plant would stabilize the local tax base, which has been battered by falling home prices and industrial losses. The average nuclear plant generates total state and local tax revenue of almost $20 million each year. (**0058-16** [Mentel, Floreine])

Comment: The other thing, certainly we all support here in this community, regardless of our views about the types of energy production we would like to see in this country, are the long term, sustainable jobs, and the continued community participation that the development of this additional facility would bring to this community. (**0058-2** [Brown, George])

Comment: The economic values of such a project will benefit the entire State of Michigan that is enduring the worst economic conditions in the nation. This project, as did the Fermi 2 project, will inject a much needed infusion into our economy that will provide construction and operating employment; off premise support business; and employment opportunities. A much needed new industrial tax base that will provide for public services -- all important ingredients to better quality of life in Michigan and Monroe County. (**0059-1** [Zorn, Dale])

Comment: In the current transitioning economy our workforce has experienced a substantial loss of jobs, and finding that their current skills may not match those needed. Consequently the unemployment rate in our region is at 20-year highs with Monroe County at 9.6 percent, Wayne County, including Detroit, at 10.6 percent, and Lucas County, Ohio, including Toledo, at 9.2 percent. It is in this context that I appear before you today. I'm strongly urging the NRC to include in the scope of the Environmental Impact Statement for Fermi 3 nuclear power plant, a full analysis of the economic benefits of constructing such a plant in our region. From an energy perspective the proposed new plant would help assure that the energy needs of our region will be met for decades to come, and economic growth clearly cannot be sustained unless an adequate, reasonably priced energy supply is available.

Equally important, the jobs created by Fermi 3 would be a significant boost to this region and state. During the construction phase the Nuclear Energy Institute estimates that 2400 construction jobs would be created. And they say a plant of this size would require DTE to add 700 permanent employees. And we know how real these jobs are. DTE is a highly respected employer who currently has about 2,000 employees in Monroe County alone. None of these figures speak to the tremendous number of spinoff jobs created by the businesses that would serve the plant and its employees.

Before I close, let me reassure you that this region knows the importance of providing our workforce with the skills necessary to obtain employment in the energy industry. Many of our laid off workers have work experience or skills that make them ideal candidates for retraining in energy industry occupations. As I am sure you will hear in testimony of others, Monroe Community College and other institutions, are already heavily committed to energy industry occupation training, and continue to work with DTE and others to assure their programs are responsive to the specific current and future needs of the energy industry. And we at SEMCA place a very high priority on encouraging careers in the energy field and providing training funding for appropriate candidates. In conclusion, as the NRC proceeds with the environmental impact analysis for this proposed plant, I implore you to include a comprehensive analysis of the potential economic benefits it will generate for Michigan and our region. This is clearly an essential component to assure balance in your final conclusions on the costs and benefits of the proposed plant. (**0059-23** [Pitoniak, Gregory])

Comment: Construction of another unit would provide hundreds of good paying jobs. These jobs contribute millions of dollars to the local economy, and provide a badly needed revenue source for our local and state governments, which in turn helps these government entities provide the services that we have come to rely on. Construction of another unit would affect all businesses in the community, from the grocery store to the restaurant to the gas station to the car dealers to the landlords that have vacancies to rent. (**0059-32** [Sweat, Ron])

Comment: A new nuclear power plant would benefit the economy with an influx of good paying jobs for skilled workers and well educated professionals. The five year construction phase would allow and create as many as 2400 jobs. Then when the plant begins operation, 400 to 700 permanent high tech jobs would be produced, many of which require professional degrees. And I know many people here have asked, my child can't find a job after they graduate from college. Here's the chance that they can stay in their hometown of Monroe, and find a job that pays well.

In addition, a new nuclear plant, with those 4 to 700 jobs and businesses that supply goods and services to support the plant. Many of these businesses would be the high tech ventures that are attractive to the bright, young professionals, who are at the core of the most vibrant economics in the County today.

Finally, Detroit Edison, with their investments in a new nuclear plant, would stabilize the local tax base, which has been battered by failing home prices and industrial losses. The average nuclear plant generates total state and local tax revenue of almost 20 million each year. (**0059-7** [Mentel, Floreine])

Comment: As the events of recent months have shown us all too clearly, the economy of southeast Michigan is suffering. Unemployment is nearing double digits, home foreclosures are at historic levels, property values declined by twenty (20) percent in 2008 and the Detroit auto companies, along with their suppliers, are struggling to survive.

The impacts are being deeply felt in the Monroe County area, which is reeling from announced job cuts at several of area industries and businesses, both large and small. Automotive Components Holdings is closing its Monroe operation, resulting in the elimination of 480 jobs. La-Z-Boy Incorporated has cut 60 jobs at its world headquarters. Holcim has announced the closing of its cement-making plant by mid-2009, eliminating 163 jobs, and most recently announced additional job reductions at the regional headquarters in the Village of Dundee. Another 140 people will be left jobless with the closing of International Paper operations in Monroe and Brownstown Township. Several smaller manufacturing companies have had to reduce their workforce due to cutbacks in the automobile industry and the local economic conditions.

Due to conditions such as these, many of our young people have to leave home to start out their careers in other areas of the country that are enjoying more robust economies. Our brightest and most earnest workers may well become Monroe County's largest export!

A new nuclear power plant would benefit our local economy with an influx of good paying jobs for skilled workers and well educated professionals. These new employment opportunities would assist us to keep our young people right here in Monroe County and strengthen our family units. The five (5) year construction phase would alone create as many as 2,400 jobs and when the plant is in operation 400-700 permanent high-tech jobs would be created, many of which require professional degrees.

In addition, a new nuclear plant would generate another 400-700 jobs in businesses that supply goods and services to support the plant. Many of these businesses would be the high-tech, entrepreneurial ventures that are attractive to the bright, young professionals who are at the core of the most vibrant economies in the country today.

Monroe County must change and adapt to these economic realities by developing new industry and business opportunities that grow out of innovation and new technology. Bringing to fruition the potential plans by Detroit Edison to pursue the construction of a new nuclear power plant on the site of Fermi 2 may well be a bridge to that future.

Finally, the possibility of Detroit Edison making a significant investment in a new nuclear plant would help stabilize the local tax base, which has been battered by falling home prices and losses of local industries and businesses. A new nuclear power plant would help our municipalities sustain, and in some cases restore, the level of services expected by their constituents. Providing these new employment opportunities may well serve to help preserve our family unity. (**0082-36** [Morris, William P.])

Comment: Should the licensing process lead to a decision of building another nuclear plant, our local and state economy will benefit by some $430 million annually through the increased sales of goods and services from the plant's operation as it filters through our local economy. It will also add an additional $40 million annually in total labor income that will be spent in our communities. The EDC recognizes that this is a rare and unique opportunity that other communities could only dream about. We therefore fully support DTE's license application and stand ready with anticipation to assist the process in any way possible. (**0082-42** [Oberleiter, Tracy])

Comment: In the current changing economy, our workforce has experienced a substantial loss of jobs and find that their current skills may not match those needed in the jobs that are

currently available. Consequently, the unemployment rate in our region is at 20 year highs, with Monroe Co. at 9.6%. Wayne Co. incl. Detroit at 10.6% and Lucas Co. Ohio, incl. Toledo at 9.2%. It is in this context that I provide the following to you today. I am strongly urging the NRC to include in the scope of the Environmental Impact Statement for the Fermi 3 Nuclear Power Plant a full analysis of the economic benefits of constructing and operating such a plant in our region. (**0083-18** [Pitoniak, Gregory])

Comment: The jobs created by Fermi 3 would be a significant boost to this region and state during the construction phase, the Nuclear Energy Institute estimates that 2,400 construction jobs would be created. And they say a plant of this size would require DTE to add 700 permanent employees. And we know how real these jobs are: DTE currently has about 2,000 employees in Monroe Co. alone. None of these figures speak to the tremendous # of spin-off jobs created by the businesses that would serve the plant and its employees.

Before I close, let me reassure you that this region knows the importance of providing our workforce with the skills necessary to obtain employment in the energy industry. Many of our laid-off workers have work experience or skills that make them ideal candidates for retraining in energy industry occupations. As I am sure you will hear in the testimony of others, Monroe Community College and other institutions are already heavily into energy occupation training and continue to work with DTE and others to assure their programs are responsive to the specific current and future needs of the energy industry. And we at SEMCA place a high priority on encouraging careers in the energy field and providing training funding for appropriate candidates. (**0083-20** [Pitoniak, Gregory])

Response: *The EIS will evaluate the expected economic impacts of construction and operation activities including any local purchasing of construction and production inputs, local and in-migrating labor, local spending of earnings, and tax revenues generated by local purchasing activities or from real property assessments. This information will be presented in Chapters 4 and 5 of the EIS.*

Comment: It was recently reported that a new Wind Turbine manufacturing plant will be locating to the Monroe County area adding new jobs. Many new Solar panel plants are moving to Michigan for alternate energy production, which could also locate in the Monroe area. Also, the job requirements for running a nuclear power plant are for very highly skilled workers with special training from outside the area which would do nothing to the advantage of the unemployed and displaced auto workers. (**0041-6** [Englund, Lance])

Response: *The comment refers to other energy-related activities that are proposed for Michigan and Monroe County and that could contribute to cumulative socioeconomic impacts. Potential cumulative impacts will be discussed in Chapter 7 of the EIS. In addition, the EIS will evaluate the economic impacts of construction and operation of the proposed Fermi 3 plant, including local and in-migrating labor, in Chapters 4 and 5 of the EIS.*

Comment: And also the fact sheet from GE Hitachi. Notice that GE is headquartered in Schenectady, New York. The Hitachi is in Japan, and so how many local jobs does that mean? I don't know.

Also, keep in mind that there's only one manufacturer in the world that makes a reactor vessel, and that is Japan Steel. They can only make, according to Blumberg News, four per year, and they have a multi-year backlog, and a company has to plunk down $100 million to get in the line.

So even if this is approved, it could be a long time coming, and in the meantime we could all be out of a job, so. (**0058-104** [McArdle, Ed])

Comment: In terms of jobs, where would those jobs actually be associated with Fermi 3? GE Hitachi, the originator of the ESBWR design, is a Japanese corporation. Fermi 3's reactor pressure vessel, and other large components, would likely be manufactured at Japan Steelworks, which is one of the only facilities on the planet that can make such large nuclear components. (**0059-75** [Kamps, Kevin])

Response: *The EIS will evaluate the expected economic impacts of construction and operation activities including local and in-migrating labor and any local purchasing of construction and production inputs. This information will be presented in Chapters 4 and 5 of the EIS. Some purchases of construction and production inputs will be outside the local area, and these inputs will be identified in Chapter 4.*

Comment: I love to hike and spend most of my free time in the outdoors, and I guess I'd ask the NRC to consider the needs of outdoor recreationalists in the environmental impact review. One of the aspects that I don't think has been mentioned tonight is the aesthetic issue with nuclear power plants. These things, however clean they may be, they look pretty jarring when you see them. If you grew up in Monroe you know what it's like to navigate by power plant stacks and cooling towers, and I'm just wondering if there's a way to make the nuke plant, Fermi 3, look better and more in line with the green aspects of the shoreline. (**0059-79** [Ingels, Mike])

Comment: One other aspect is social justice. Monroe County provides a lot of the power for Southeast Michigan. It's a working class town. We do a lot of things here. We work hard and we provide power to places like Ann Arbor and Bloomfield Hills and all these great places that don't have power plants. And I'd ask that something be given to Monroe to really soften the impact of that, because, you know, again, our shoreline I really think is our future, and I think every power plant we put there is a little bit of an obstacle to presenting our County as a green place and I think maybe some people don't live here and don't site their businesses here because they see the brown streak across the sky. (**0059-81** [Ingels, Mike])

Response: *The EIS will evaluate the physical impacts of the construction and operation of the proposed plant on the visual aesthetics of the area in Chapters 4 and 5 of the EIS. Measures to mitigate the physical impacts will also be discussed in those chapters.*

Comment: I live directly across Swan Creek from DTE Energy Fermi II Nuclear Power Plant and have a full view of one cooling tower staring me in the face every day. If DTE Energy builds another cooling tower where proposed, I will have two cooling towers staring me in the face. This additional cooling tower will have a negative impact on my residential property value. Also, if DTE Energy adds a third nuclear reactor, that means they have increased the size of the plant by 33%, adding a 33% increase for potential accident, further having a negative impact on residential property value. I feel DTE Energy should be required to conduct a near-plant property value impact study in an attempt to determine property value declines as a result of the plant expansion. (**0074-1** [Scobie, Randall])

Response: *The NRC staff will evaluate the effects of the construction and operation of the proposed Fermi 3 plant on local property values in Chapters 4 and 5 of the EIS, based on an analysis of existing studies.*

2.11 Comments Concerning Historic and Cultural Resources

Comment: On January 8, 2009, the Advisory Council on Historic Preservation (ACHP) received from the Nuclear Regulatory Commission (NRC) a notification pursuant to Section 800.8(c) of the ACHP 's regulations, Protection of Historic Properties (36 CFR 800), regarding the referenced project. We appreciate receiving your notification. which establishes that NRC will use the process and documentation required for the preparation of an EA/FONSI or an EIS/ROD to comply with Section 106 of the National Historic Preservation Act in lieu of the procedures set forth in 36 CFR 800.3 through 800.6.

In addition to notification to the ACHP, NRC must also notify the Michigan State Historic Preservation Officer and meet the standards in Section 800.8(c)(I)(i)through (v) for the following:

- identifying consulting parties;
- involving the public;
- identifying historic properties and assessing the undertaking's effects on historic properties: and
- consulting regarding the effects of the undertaking on historic properties with the SHPO/THPO, Indian tribes and Native Hawaiian organizations that might attach religious and cultural significance to affected historic properties, other consulting parties, and the ACHP, where appropriate during NEPA scoping, environmental analysis, and the preparation of NEPA documents.

To meet the requirement to consult with the ACHP as appropriate, the NRC should notify the ACHP in the event NRC determines, in consultation with the SHPO/THPO and other consulting parties, that the proposed undertaking(s) may adversely affect properties listed, or eligible for listing, on the National Register of Historic Places (historic properties). In addition, Section 800.8(c)(2)(i) requires that you submit to the ACHP any DEIS or EIS you prepare. Inclusion of your adverse effect determination in both the DEIS/EIS and in your cover letter transmitting the DEIS/EIS to the ACHP will help ensure a timely response from the ACHP regarding its decision to participate in consultation. Please indicate in your cover letter the schedule for Section 106 consultation and a date by which you require a response by the ACHP.

The regulations do not specifically require that an agency submit an EA to the ACHP. However, keep in mind that, in the case of an objection from the ACHP or another consulting party, Sections 800.8(c)(2)(ii) and (c)(3) provide for ACHP review of an EA (in addition to a DEIS or EIS) to determine whether preparation of the EA, DEIS or EIS has met the standards set forth in Section800.8(c)(I)and/or to evaluate whether the substantive resolution of the effects on historic properties proposed in an EA, DEIS or EIS is adequate.

If NRC's determination of adverse effect will be documented in an EA, we request that you notify us of the adverse effect and provide adequate documentation for its review. The ACHP's decision to review an EA, DEIS or EIS will be based on the applicability of the criteria in Appendix A of the ACHP's regulations. Thank you for your notification pursuant to Section 800.8(c).(**0044-1** [Vaughn, Charlene Dwin])

Response: *Consultation in compliance with the Advisory Council on Historic Preservation's ACHP's regulations, Protection of Historic Properties (36 CFR Part 800), will be discussed in Chapter 2 of the EIS. Historic and cultural resources, including historic properties as defined in 36 CFR 800.16(1), will be discussed in Chapter 2 of the EIS. Impacts to and mitigation*

measures for historic and cultural resources, including historic properties as defined in 36 CFR 800.16(1), will be discussed in Chapters 4 and 5 of the EIS.

Comment: Figure 2.1-2 illustrates a 7.5 mile Radius around the Fermi Unit 3 vicinity. This radius encompasses a number of Heritage Resource Sites in the Coastal Zone of Monroe County, MI.

CULTURAL. Monroe Harbor is classified as a Working Waterfront (US Army Corps of Engineers).

HISTORICAL. River Raisin Battlefield (National Park Service). (**0082-29** [Micka, Richard])

Comment: Within the 7.5 miles Radius of Fermi Unit 3, the US Fish & Wildlife Service has established an International Wildlife Refuge, the NPS operates the Motor Cities National Heritage Area (Map attached) and is exploring the establishment of a National Battlefield that would be connected to the North Country National Scenic Trail near Fort Meigs in Perrysburg, Ohio. The US Army Corps of Engineers, Detroit District, operates a Confined Disposal Facility on the St. Lawrence Seaway at Pie-Movillee. This is exciting news. The COLA (ER) should be updated to reflect these initiatives and the Applicant should join in the effort to create a Center for Regional Excellence built on the Energy Industry in the Lake Erie West Region! (**0082-32** [Micka, Richard])

Response: *Historic and cultural resources, including historic properties as defined in 36 CFR 800.16(1), will be discussed in Chapter 2 of the EIS. Impacts to and mitigation measures for historic and cultural resources, including historic properties as defined in 36 CFR 800.16(1), will be discussed in Chapters 4 and 5 of the EIS.*

2.12 Comments Concerning Health – Nonradiological

Comment: In regards to health issues: ...cooling tower reservoirs and thermal discharges can act to harbor or accelerate some etiologic agents that ultimately affect human health once released into the environment. These etiological agents include, but are not limited to, the enteric pathogens Salmonella spp., *Vibrio* spp. and *Shigella* spp., and *Plesiomonas shigelloides*, as well as Pseudomonas spp., toxin-producing algae such as *Karenia brevis*, noroviruses, and thermophilic fungi. Etiological agents also include the bacteria *Legionella* spp., which causes Legionnaires' disease, and free-living amoebae of the genera *Naegleria*, *Acanthamoeba*, and *Cryptosporidium*. Exposure to these microorganisms, or in some cases the endotoxins or exotoxins produced by the organisms, can cause illness or death. Thermo-stable viruses are also considered etiological agents and are subject to review for this impact analysis.

These etiological agents could prove very costly to human health if there were an inversion and there was a mix of smog and fog. This needs to be examined. (**0051-5** [Cumbow, Kay])

Response: *The health impacts of etiological agents as related to Fermi 3 operations will be addressed in Chapter 5 of the EIS.*

2.13 Comments Concerning Health – Radiological

Comment: In this regard, you may wish to take note of a number of reports issued by the IJC that touch on these matters. For your convenience, these are identified below:

- Reports in 1977, 1983 and 1987 reviewed radioactivity in the Great Lakes Basin.
- In 1994, the Seventh Biennial Report on Great Lakes Water Quality recommended that radionuclides which meet the definition of persistent toxic substance be included in the governments' strategy for virtual elimination.
- In 1996, the Eighth Biennial Report on Great Lakes Water Quality devoted a section to radioactive substances and recommended that the use and storage of radioactive materials and nuclear wastes be addressed under the Great Lakes Water Quality Agreement.
- In 1997, the Nuclear Task Force established by the DC in 1995 to review and assess the status of radioactivity in the Great Lakes issued a report on the sources of various radioactive isotopes as well as the movement and distribution of radionuclides.
- Also in 1997, a report entitled The IJC and the 21st Century devoted a section to nuclear issues.
- In 1998, the Ninth Biennial Report on Great Lakes Water Quality included three recommendations with respect to radioactivity.
- In 2002, the Eleventh Biennial Report had a full chapter entitled Nuclear Issues.

The foregoing reports and others may be accessed on the IJC's website at www.ijc.org. If assistance is required, your staff is invited to contact Frank Bevacqua, IJC Public Information Officer, who may be reached at: bevacquaf@washington.ijc.org or 202-736-9024. (**0015-2** [Lawson, Ph.D., Charles]; **0071-2** [Lawson, Ph.D., Charles])

Comment: The IJC, the International Joint Commission for the Great Lakes for the U.S. and Canada said in 1978, that there are some substances that are so toxic that they should not be produced in the Great Lakes basin. In the early 1990's, the IJC acknowledged that there are radionuclides that meet the definition of persistent toxins, and that they recommended to the governments of the U.S. and Canada that they phase out all of those radionuclides that met that definition. And the definition is, any toxin that bioaccumulates and has at least a half life of eight weeks in water. That would shut down every single nuclear power plant in the Great Lakes basin. (**0058-19** [Cumbow, Kay])

Response: *The comments refer to a number of reports issued by the IJC on the water quality of the Great Lakes Basin. These reports will be considered when evaluating the health impacts of Fermi 3 operations in Chapter 5 of the EIS.*

Comment: Nuclear reactors routinely release millions of curies of radioactive isotopes into the air and water each year unreported and unmonitored. The Nuclear industry does not regulate these radioactive elements because they consider them biologically inconsequential. These radioactive releases include the noble gases Krypton, Xenon and Argon. They emit gamma radiation, which can mutate the genes in the eggs and sperm and cause genetic mutations. (**0019-3** [Schemanski, Sally])

Comment: In the areas around nuclear power plants are the people monitored through doctors for health effects of the nuclear releases? Nuclear power never was too cheap to meter was always so very dangerous to life and will outlive all generations of humanity. (**0031-5** [Rysztak, Robert])

Comment: Even the regular releases of nuclear power plants, radio-active isotopes, have ill effects on the fish, the animals and the people. High cancer rates run nationwide. (**0032-3** [Rysztak, Robert])

Comment: Who studies the effects of radiation in the Great Lakes region? Who studies the health of the people in the cities of the nuclear power plants? Are they monitored in comparison to people in non-nuclear power plant areas? (**0032-5** [Rysztak, Robert])

Comment: The pollution resulting from a nuclear power plant is unacceptable and is dangerous to the health of too many citizens. (**0034-2** [Nett, Ann C.])

Comment: The geographic region is the state's most-populated, and the proposed Fermi III project would be placing residents of two states and Canada in jeopardy, in the immediate region, from the potential of uncontrolled nuclear reactions, as well as proximity to storage of spent radioactive waste. (**0039-2** [Mitchell, Rita])

Comment: Routine radioactivity releases from Fermi 3 would harm human health. Even new reactors like Fermi 3 will release significant amounts of radioactivity directly into the environment. These would include so-called planned and permitted releases from the reactor's routine operations, as well as unplanned releases from leaks and accidents. Atomic reactors are designed to release radioactive liquids and gases into the air, water, and soil, which can then bio-concentrate in the ecosystem and human bodies. Liquid releases, which at Fermi are discharged into Lake Erie, include tritium, which can incorporate into the human biological system, even down to the DNA level. Once organically bound, tritium can persist in the human body for long periods, emitting damaging radioactive doses. Tritium can cross the placenta from mother to fetus. Current radiation health standards are not protective of women, children, nor fetuses. The Institute for Energy and Environmental Research has launched a campaign called Healthy from the Start, which urges NRC, EPA, and other agencies to protect the more vulnerable Reference Pregnant Woman from such radioactive hazards as tritium, rather than Reference Man as is currently done. The State of Colorado has instituted a tritium regulation 40 times stronger than the federal standard; California has a 50-fold stronger standard. Michiganders deserve equally strong protection. (**0050-6** [Kamps, Kevin])

Comment: Many radionuclides released routinely by nuclear plants bioaccumulate and bioconcentrate in the food chain, and these should all be accounted for. (**0051-7** [Cumbow, Kay])

Comment: Tacitum is a very important isotope that is routinely emitted in large quantities into the air and waste water from nuclear power plants. Tacitum, which is radioactive for 248 years is released continuously from reactors into the air and into lakes, rivers, or seas - depending upon reactor location. There is vast literature on the biological effects of tritium demonstrating that it causes chromosomal breaks and aberrations. (Helen Caldicott, Nuclear Power Is Not the Answer). What studies are being done on the long term effects of tritium which cannot be filtered out and is released in the form of radioactive water vapor or water. What are the levels of tritium in the air and the drinking water of Monroe County? (**0055-2** [Guthrie, Patricia])

Comment: All nuclear power plants release radionuclides into the air and into the water. Some are planned releases; some are not planned by either leaks or accidents. Radioactive emissions are quite insidious because normally, under normal circumstances, people cannot sense them with their senses. They can't smell them, they can't taste them, they can't -- you need expensive equipment to detect them, and nuclear power plants do not have to have to keep -- they don't do monitoring on a 24/7 basis. They don't monitor through all their vents. There's a lot of ways that radioactive waste can get out. (**0058-24** [Cumbow, Kay])

Comment: Atomic reactors are designed to release radioactive liquids and gases into the air, water, and soil. Gaseous releases include Xenon 135, a noble gas which quickly decays into Cesium 135, which then falls out onto the soil and surface waters. Cesium is readily taken up by the human body, where it lodges in muscle tissue such as the heart. (**0058-34** [Yascolt, Stas])

Comment: I have taught radiation science in college, and I'm on the National Radiation Committee for the Sierra Club. But that's not really the reason that I am here today, because I think everybody knows that radiation exposure is bad for us. I have all the --even though I was very careful when I was working, I have all the medical problems that are associated with excess radiation. (**0058-40** [Simpson, Robert])

Comment: I know the horrible nightmare of a cancer diagnosis. Living under the shadow of that debilitating, painful, and life threatening disease, it is becoming an epidemic. To expose a population to the threat of that disease is a crime. Dr. Sternblast, who is doing a large project to analyze radioactive elements stored in baby teeth, is convinced that more than any other factor, radiation is the cause of the cancer epidemic. Main radiation factors include fallout and nuclear reactor emissions. Nuclear reactors create radiation. The worst scenario is a large explosion such as Chernobyl. However, nuclear reactors routinely omit radiation into the atmosphere by way of releases that is gaseous and thermal. Since, like pesticides, radiation is bio accumulative, and enviro accumulative, there is no safe measure for repeated emissions and exposures. Like pesticides, radiation is carcinogenic and mutagenic. It is also teratogenic, and it is a feticide. (**0059-12** [Barnes, Kathryn]; **0083-22** [Barnes, Kathryn])

Comment: Radioactive elements cause cancer. (**0059-18** [Barnes, Kathryn])

Comment: The environmental assessment must address the well known health effects of both low level and catastrophic radioactive emissions from nuclear power plant operation. (**0059-48** [Wolfe, Janet]; **0083-2** [Wolfe, Janet])

Comment: We would not have the environmental problems that we have today with -- wait, I thought everybody said the deer were nice on that park. Well, deer don't know that they are dying and getting cancer. They do. There are environmental costs that are largely unseen, they are very quiet. But because there are deer walking around in a park doesn't mean that it's benign. We know from study after study. The very first ones which were done were really done in Hiroshima and Nagasaki. The results of radiation are dramatic, life-ending, and terrible. (**0059-58** [Wolfe, Robert])

Comment: I have become aware of the dangers of radio active gases (Iodine 131) that are regularly flushed into the atmosphere by the Nuclear Power Plant yet permitted by NRC, and dismissed as noble gases and therefore chemically inert. However, scientists have indicated that they actively decay to daughter isotopes. Does living near a nuclear power plant increase the exposure to Iodine-131? Would this risk increase with an added nuclear plant? Are the

annual Fermi II Iodine-131 releases still among the highest among US reactors? Are there any recent studies in this regard available? (**0065-1** [Diederichs, Dorothy])

Comment: I am concerned about the radioactive gases which are actively flushed into the atmosphere. Planned Purges are officially permitted by the NRC so that utility operators can decrease the intensely radioactive environment into which maintenance workers must enter. Older reactors are allowed twenty-two purges per year during cold shutdown.

What studies have been done on the impact of these planned purges on pregnant women and children and the elderly, many of whom have a weakened immune system? Will construction of Fermi III increase the risk of exposure to harmful radioactive substances? (**0068-1** [Walby, Charlotte])

Comment: What are the health impacts of adding another nuclear power plant to our community? (**0081-4** [Ryan, Janet])

Comment: Dr. Helen Caldicott lists numerous dangerous, carcinogenic elements produced by nuclear power plants:

- Iodine 131, which bio-concentrates in leafy vegetables and milk and can induce thyroid cancer
- Strontium 90, which bio-concentrates in milk and bone, and can induce breast cancer, bone cancer and leukemia
- Cesium 137, which bio-concentrates in meat, and can induce a malignant muscle cancer called a sarcoma
- Plutonium 239, which can cause liver cancer, bone cancer, lung cancer, testicular cancer and birth defects. (**0081-1** [Ryan, Janet])

Response: *The comments refer to human health effects of radiological releases from nuclear power plants. In Chapter 5 of the EIS, the NRC staff will evaluate human health impacts of effluent releases from the operation of the proposed Fermi 3 plant.*

Comment: The rising cancer death rate in Monroe County is 45% above the U.S. average. Apparently there is a link to the fact that all reactors routinely emit over 100 radioactive chemicals into air and water that are known carcinogens. (**0047-5** [Bettega, Gayle])

Comment: Fermi 2's operations are correlated with local increases in cancer rates and other diseases, a radioactive health risk that Fermi 3 would make even worse. Janette Sherman, MD of the Environmental Institute at Western Michigan University published Childhood Leukaemia Near Nuclear Installations in a recent edition of the European Journal of Cancer Care. Using mortality statistics from the U.S. Centers for Disease Control and Prevention, Sherman examined data from 1985-2004 and determined that when measured against background levels in the rest of the U.S., leukemia rates have increased for children that live near nuclear reactors. She found an increase of 13.9% near nuclear plants started up between 1957-1970 (oldest plants); an increase of 9.4% near nuclear plants started up between 1971-1981 (newer plants); and a decrease of 5.5% near nuclear plants started up between 1957-1981 and later shut down.

Joe Mangano of the Radiation and Public Health Project has documented that in the early 1980s, before Fermi 2 began operating in 1988, the Monroe County cancer death rate was 36th highest of 83 Michigan counties. But by the early 2000s, it had moved up to 13th highest. From

1979-1988, the cancer death rate among Monroe County residents under age 25 was 21.2% below the U.S. rate. But from 1989-2005, when Fermi 2 was fully operational, the local rate was 45.5% above the U.S. rate. The energy efficiency and renewable alternatives to Fermi 3 do not involve such radioactive health risks. (**0050-13** [Kamps, Kevin])

Comment: Fermi 1 was a fast breeder reactor, which was supposed to produce more fuel in the form of Plutoniuum-239 (Pu-239) than it used of Uranium-235. Glenn Seaborg, co-discoverer of Pu-239, described it as "fiendishly toxic".

The nuclear industry promotes reprocessing (they like to call it "recycling") high level radioactive "spent" fuel to extract Pu-239 for more fuel. Pu-239 has a radioactive half-life of 24,000 years and a hazardous-to-health life of 240,000 years.

Many years ago experiments were done on young adult beagles. They were injected with small doses of Pu-239. They died from bone cancer. If they inhaled Pu-239 the dogs died of lung cancer (Science, February 22, 1974). Extrapolating to humans, a millionth of an ounce would have the same effect.

The British Ministry of Health has reported finding Pu-239 in children's deciduous (baby) teeth. The concentration increased the closer they lived to the Sellafield reprocessing plant indicating that the plant was the source of Pu-239.

In France Pu-239 has been found on the Normandy beach. A reprocessing plant is located on the English Channel upstream at LaHague. An increase in childhood cancer has been reported in children who visited the beach frequently (British Medical Journal, January 11, 1997).

The German Federal Radiation Protection Agency, the government's advisor on nuclear health, concluded that children under the age of 5 years were more likely to develop leukemia if they lived near a nuclear power plant. Germany plans to close all 16 nuclear power plants by 2020. (**0054-3** [Drake, Gerald A.])

Comment: I am concerned about the impact that Fermi III will have on the health of residents of Monroe County and environs, especially those whose immune system would make them susceptible to a variety of damaging effects.

The elderly, immuno-depressed patients, normal children, and some with specific, inherited diseases are many times more susceptible to the deleterious effects of radiation than normal adults. Overall, about forty-two people out of a hundred are expected to develop cancer in their lifetimes from all causes. (Helen Caldicott, Nuclear Power Is Not the Answer) (**0055-1** [Guthrie, Patricia])

Comment: We have radioactive releases from nuclear power plants in the Great Lakes Basin handout that anyone who lives in this area should see. Do you really want your kids to have brain tumors, birth defects, cancers, leukemia, and reproductive immune, cardiovascular and endocrine system disorders? I hope not. (**0058-86** [Anderson, Alan])

Comment: My concerns regarding the impact of the building of a new nuclear power plant on the site of Fermi II focus on the environment and the health of the community of Monroe. While DTE intends to minimize environmental impacts, routine releases will occur in both liquid and air emissions.

Current radiation health standards as used by the EPA and NRC are referenced to healthy men. The reference man is a statistical model. He dates to 1974, but he's perpetually aged between 20 and 30 years old. He weighs 170 pounds, stands 5 feet 7 inches and hails from Western Europe or North America. And he represents everyone in the United States when it comes to setting regulations for acceptable standards of exposure to 'ionizing radiation.[1]

What about pregnant women, children and the frail elderly? What studies have been done on the effect of sustained low-level radiation in fetuses, children and the elderly who have weakened immune systems? This is of special concern to us as there are 180 elderly residents at the IHM Sisters Motherhouse which is within the Fermi EPZ.

Routine radioactive discharges by nuclear power plants are deemed legal and judged to be safe by the NRC and the industry. These releases can include more that 100 different chemicals, including cesium-137, iodine-l31, strontium-90 and tritium. Some of this is so radioactive it is stored on site. Any loss of cooling water from mechanical failure or terrorist attack would cause a catastrophe. Routine releases of lower level radioactive chemicals into the water are done in order to relieve pressure in the containment area and to limit the presence of radioactive and corrosive chemicals that damage reactor parts. The discharge for Fermi is very close to the water supply for the county. Not all radioactive isotopes can be filtered from the water prior to its release.

Fermi II, after an accident at the reactor on Christmas Day, 1993, released over a million gallons of radioactively contaminated water into Lake Erie. Other chemical releases are made into the air. By breathing in radiation from the air, or drinking water that is contaminated, we ingest these chemicals. They in turn release fast moving sub-atomic particles into our bodies that smash into and break molecules causing cancer, birth defects, and genetic mutations. Radioactive iodine aims for the thyroid, strontium goes for the bones and tritium behaves like water dispersing throughout the body and entering cells where it can disrupt DNA. Tritium cannot be filtered. What studies have been done on the long term effect of tritium which is released into the air and water by nuclear power plants?

[1] Enszer, Julie R., 'Reference Man' May Lose Radioactivity Modeling Job, Women's ENews, November 13, 2007 (**0059-41** [Mumaw, Joan]; **0083-8** [Mumaw, Joan])

Comment: The thing about radiation is you don't see it or smell it, so it's difficult to provide evidence of its presence as a pollutant. But it does accumulate in body tissue and may cause damage to the structure of DNA. The National Academy of Sciences National Research Council, on its report on health effects of radiation exposure, states that the preponderance of scientific evidence shows that exposure to radiation at even barely detectible doses over long periods of time, can cause DNA damage that leads to cancer, especially in fetuses and children.

What is not fully appreciated is that chemicals do not do their worst damage by exposing people to radiation in the environment. Rather, the real damage is done through ingesting them through breathing, drinking, and through the food chain, especially through fresh milk and other dairy products, concentrating in organs like the lung, thyroid, bone marrow, and the female breast. These internal radiation doses are especially harmful to infants in the womb, children, and older people with weaker immune systems.

In Monroe County the cancer death rate is 10 percent above the national average. Cancer mortality in children, who are most susceptible to radiation, soared from 21 percent, the average in the 1980's, to 45 percent above the national average in 2005. What studies have been done

in Monroe County on the incidences of cancer, especially in children, and its possible causes? This is of concern to us as Sisters, many of whom have spent several years in Monroe studying and teaching in local schools. And several of our women are currently undergoing treatment for cancer.

Health and the environmental policies have long observed the precautionary principle. The principle developed at the Wingspread conference in 1998 asserts that before using a new technology or starting a new activity, there is a duty to take anticipatory action to prevent harm. It also declares that responsibility for the proof of harmlessness rests with the proponent rather than the public. Can you, DTE, and the NRC, assure us that Fermi 3 will be safe? Can you assure us that the health of the community is not being and will not be compromised by the inevitable release of radioactive contaminants into air and water?

Please do not rush to build an expensive and quite possibly harmful nuclear reactor until all the heath issues are studied by independent researchers and the public is informed of any risk. (**0059-43** [Mumaw, Joan])

Comment: I've been in contact with an eminent epidemiologist, Joseph Mangano. He works with the Radiation and Public Health project. His work is reviewed by several MDs, several PhDs, biostatisticians.

The following is a statement by Joseph J. Mangano. Joseph Mangano, Masters Public Health, Masters of Business Administration, is Director, Secretary, and Executive Director of the Radiation and Public Health Project. Mr. Mangano is a public health administrator and researcher and has studied the connection between low dose radiation exposure and subsequent risk of disease, such as cancer, and damage to newborns. He has published numerous articles and letters in medical journals in addition to books, including low level radiation and immune systems disorders, and atomic air legacy. Here he examines the connection between radiation exposure and current widespread health problems. He cites the rising local cancer rates, suggests a link between the Fermi 2 reactor and cancers. January 14th, 2009, the cancer death rate in Monroe County has been rising since the late 1980's when the Fermi 2 nuclear reactor began operating according to this new analysis. The rising cancer has been sharpest among children and adolescents who are most susceptible to the harmful effects of radiation exposure. The analysis uses official data from the US Centers for Disease Control and Prevention. The increasing cancer rate death among Monroe County residents, especially young people, suggest a link with radioactive chemicals emitted from the Fermi reactor, says Joseph J. Mangano, MPH, MPA, Executive Director of the Radiation Public Health Project.

Because Monroe County has a low risk population that is well educated, high income, and has few language barriers, rising cancers are unexpected and all potential causes should be investigated by health officials.

Fermi 2 reactor began operating June 21st, 1985, and went commercial January 1988. However, it ran very little after the initial low power startup. The 1998 startup was the full commercial operation. In the early 1980's the Monroe County cancer death rate was 36th highest of 83 Michigan counties. By early 2000 it had moved up to 13th highest. From 1979 to 1988, pre-Fermi, the cancer death rate for Monroe County residents under 25 years of age was 21 percent below the US rate. But from 1989 to 2005, when Fermi 2 was fully operational, the local rate was 45.5 percent above the US national average.

All nuclear reactors produce electricity by splitting uranium atoms which creates high energy needed to heat water. This process all creates over 100 radioactive chemicals not found in nature, including strontium 90, cesium 137 and iodine 131. While most of these chemicals are retained in reactors and stored as waste, a portion is routinely released in the local air and water. They enter human bodies through breathing and the food chain, and raise cancer risk by killing and injuring cells in various parts of the body. They are especially harmful to children.

The findings come at a time when a new reactor has been proposed at the Fermi plant. The original Fermi 1 reactor, which was a site of a partial core meltdown accident in 1966, shut down permanently in 1972, and I might add, was taken apart by the pipefitters of Local 671. Of a work force of 39, 35 died within a few years of taking it apart, from cancers of the organ. Please check your data and go back to your records. Data on cancer risk from Fermi radioactive emissions. The Fermi 2 reactor is located in Monroe County and started in 1985, now commercial in '88. Monroe County has no obvious cancer risk. It has high income, low poverty, well-educated population with few language barriers and access to excellent healthcare in nearby major cities. Thus, an increase in cancer is unexpected. This change should be investigated and one potential cause should be ruled out from radioactive emissions from Fermi 2. That is a likely source of the cancers.

The sources cited are: Fermi 2 incurred near missed accidents, emergency diesel generators were inoperable for seven days in August of 2003. Loss of offsite power due to northeast blackout. The next citation is from the U.S. Centers for Disease Control and Prevention. The next citation is from Cancer Death Rates, Monroe County v. U.S., and it goes over the periods and the demographic comparisons by county to U.S. His point is that there are high cancer rates in Monroe County that did not occur pre Fermi 2, and precisely correlate with the operation of Fermi 2. (**0059-64** [Keegan, Michael])

Comment: I'm just amazed that after listening to Michael Keegan talk about the higher cancer rates since Fermi's been running -- I mean we're talking cancer, we're talking people dying. I heard people talk about babies dying and pregnant women losing their babies. And then other people talk about they are supporting Fermi 3 because Detroit Edison helps with the Science Fair. And I don't mean to be rude, but we're talking cancer. We're talking waste that is deadly for two millenniums plus. And they don't know what to do with it. They're talking cancer. And then other people have come up shown that there's more jobs if we chose alternative energy. So I don't understand any of the reasoning to support Fermi 3, causes cancer and not as many jobs. So I guess -- you know, I've come to a million anti-Fermi meetings and I rarely talk. But it's like, come on, think about it. We're talking cancer, high rates of cancer in Monroe County. You know? Yeah, we're a company town. They've done a good job of selling their plant and supporting the Red Cross and the United Way and the schools. We're talking cancer. (**0059-88** [Meyers, Marcie])

Comment: I am concerned about the impact of radiation exposure on the elderly, immunosuppressed persons, children, and the population in general in Monroe County. It seems quite peculiar that Monroe's mortality rate is above that of Michigan for the years 2000-2005, all cancers combined (ICD-10 codes COO-D48.9). Will the NRC be asking the Health Department to investigate this discrepancy? And how can we be assured that increasing nuclear power generation does not put our citizens, especially children and young adults at risk? Thank you for giving serious consideration to these issues before moving forward with plans to build Fermi 3. (**0067-1** [Duggan, Marion])

Comment: The people of Monroe do not need more risks to healthy living. (**0070-3** [Karas, Josephine])

Comment: I. Recent Essential Facts on Health Hazards of Nuclear Generating Reactors

1. Thus U.S. National Academy of Sciences has confirmed in 2006, for the seventh time, conclusive evidence that every exposure to radiation increases the risk to human health. Radioactivity can damage tissues, cells, DNA and other vital molecules, potentially causing programmed cell death (apoptosis), genetic mutations, cancers, leukemias, birth defects and reproductive, immune, cardiovascular and endocrine system disorders.

2. Among the many environmental concerns surrounding nuclear power plants, there is one that provokes public anxiety like no other: the fear that children living hear nuclear facilities face an increased risk of cancer. In fact, the carcinogenic effects of radiation exposure are most severe among infants and children. Leukemia is most closely associated with exposures to toxic agents such as radiation, and has been most conclusively studied by scientists. In the U.S., childhood leukemia incidence has risen 28.7% from 1975 to 2004, according to CDC data, suggesting that more detailed studies on causes are warranted.

3. The November, 2008 issue of the European Journal of Cancer Care published a US study of children living near nuclear plants. The authors are epidemiologist Joseph Mangano, MPH MBA, Director of the Radiation and Public Health Project and Janette Sherman, MD, of the Environmental Institute at Western Michigan University. They analyzed leukemia deaths in children ages 0-19 in the 67 counties near 51 nuclear plants from 1957-1981. Nearly 25 million people live in these counties, and the 51 plants represent nearly half of the U.S. total. Using mortality statistics from the U.S. Centers for Disease Control and Prevention, Mangano and Sherman found that in 1985-2004, the change in local child leukemia mortality (v. the US) compared to the earliest years of reactor operations were:

- An increase of 13.9% near nuclear plants started 1957-1970 (the oldest plants, still operational).
- An increase of 9.4% near nuclear plants started 1971-1981 (newer plants).
- A decrease of 5.5% near nuclear plants started 1957-1981 and later decommissioned.

The 13.9% rise in mortality rates near the older plants suggests a potential effect of greater radioactive contamination near aging reactors, while the 5.5% decline near closed reactors suggests a link between less contamination and lower leukemia rates. The large number of child leukemia deaths in the study (1292) make the results statistically significant.

4. Before Mangano and Sherman's study, a 2007 meta-analysis was published in the European Journal of Cancer Care by researchers from the Medical University of South Carolina. That report reviewed 17 medical journal articles on child leukemia rates near 136 reactors, and found that all 17 detected elevated rates. These were nuclear sites in the UK, Canada, France, Germany, Japan, Spain and the USA. The incidence of leukemia in children under 9 living close to the sites showed an increase of 14 to 21 per cent, while death rates from leukemia were raised by 5 to 24 percent, depending on their proximity to the nuclear facilities (European Journal of Cancer Care, vol 16, p 355). This study updates, with largely consistent findings, an analysis conducted in the late 1980s by the National Cancer Institute (NCI). That analysis, mandated by Senator Edward M. Kennedy (D-MA), is the only attempt that US federal officials have made to examine cancer rates near US nuclear plants.

5. In addition are two new KiKK studies conducted by German researchers of the University of Mainz (KiKK is a German acronym for Childhood Cancer in the Vicinity of Nuclear Power Plants), whose results were published in 2008 in the International Journal of Cancer (vol 122, p 721) and the European Journal of Cancer (vol 44, p 275). These found higher incidences of cancers and a stronger association with nuclear installations than all previous reports. The main findings reported a 60 percent increase in solid cancers and a 117 percent increase in leukemia among young children living near all 16 large German nuclear facilities between 1980 and 2003. The most striking finding was that those who developed cancer lived closer to nuclear power plants than randomly selected controls. Children living within 5 kilometers of the plants were more than twice as likely to contract cancer as those living farther away. This finding has been accepted by the German government as definitive. This indicates twice as many cases of leukemia among children living near nuclear power plants.

The German federal agency for irradiation protection has called the study a significant argument against nuclear power. “Given the particularly high risk of nuclear radiation for children, and the inadequacy of data on the emissions of nuclear power plants, we must take the correlation between distance of residence and high risk of leukemia very seriously,” Wolfram Koenig, director of the agency, stated at a press conference.

The Mainz findings are consistent with others in France and Britain. In France, one such study in 1997, and another in 2001, showed a higher incidence of leukemia among children living near nuclear power plants.

6. The 1997 French study, led by Jean Francois Viel, Professor of public health at the France Comte University, 300 km east of Paris, found that children frequenting the beaches at Cotentin on the Atlantic coast near the nuclear power plant of La Hague, or living within a radius of 35 km of the plant, suffered leukemia well above the national average.

Another French study from 2001 by Alfred Spira, of the National Institute of Health and medical Research, confirmed Viel’s results. Spira, who had first rejected the results of Viel’s study, later changed his opinion when he found a disproportionately high number of cases of leukemia among people below 25 years old and living within 35 km of La Hague. When the sample studied was narrowed to children ranging from 5 to 9 years old, living within 10 km of the nuclear facility, the cases of leukemia were 6.38 times the national average.

7. A British study from 2002 confirmed an older one from 1990 showing that the incidence of leukemia among children of workers at the Sellafield nuclear power 400 km north of London was twice the national average. Investigation by Heather Dickinson and Louise Parker from the Children’s Cancer Research Unit at the University of Newcastle confirmed the earlier results. Using data from 1957 to 1991, the researchers found that children of workers at Sellafield were more likely to suffer leukemia and non-Hodgkins lymphoma (NHL, a group of cancers affecting the white blood cells) that the national average. In their study, Dickinson and Parker conclude that the Sellafield workers’ children born in Seascale (the village near the Sellafield nuclear reprocessing plant) ran on average 15 times higher risk of developing leukemia and NHL, and that the Sella field workers’ children outside Seascale ran twice the risk.

II. Discussion of Further Considerations

The findings reported in the 1980s and 1990s regarding leukemia clusters are again being repeated. A Report in 2004 by the Committee Examining Radiation Risks of Internal Emitters

set up by the UK government points out that the models used to estimate radiation doses from sources emitted from nuclear facilities are riddled with uncertainty. For example, assumptions about how radioactive material is transported through the environment or taken up and retained by local residents may be faulty.

If radiation is indeed the cause of the cancers detected, how might local residents have been exposed? Most of the reactors in the KiKK study were pressurized water designs notable for their high emissions of tritium, the radioactive isotope of hydrogen. Last year, the UK government published a report on tritium that concluded that its hazard risk should be doubled. Tritium is most commonly found incorporated into water molecules, a factor not fully taken into account in the report. So this could make it even more hazardous.

As we begin to pin down the likely causes of elevated cancer rates, the new evidence of an association between increased cancers and proximity to nuclear facilities support the following: Pregnant women and young children should be advised to move away from them. Local residents should be advised not to eat vegetables from their gardens. (**0078-1** [Pfeiffer, Jelica B.])

Comment: In Monroe County, the cancer death rate is 10% above the national average. Cancer mortality in children, who are most susceptible to radiation, soared from 21% below the US average in the 1980s to 45% above the national average in 2005![3] What studies have been done in Monroe County on the incidence of cancer, especially in children, and possible causes? This is of concern to IHM Sisters, many of whom spent several years in Monroe studying and teaching in local schools. Several of these women are undergoing treatment for cancer.

[3] US Centers for Disease Control and Prevention, http://cdc.wonder.gov, underlying cause of death. (**0083-14** [Mumaw, Joan])

Comment: The cancer death rate in Monroe County has been rising since the late 1980s, when the Fermi 2 nuclear reactor began operating, according to a new analysis. The rise in cancer has been sharpest among children and adolescents, who are most susceptible to the harmful effects of radiation exposure. The analysis uses official data from the U.S. Centers for Disease Control and Prevention.

The increasing cancer death rate among Monroe County residents, especially young people, suggests a link with the radioactive chemicals emitted from the Fermi reactor, says Joseph J. Mangano MPH MBA, Executive Director of the Radiation and Public Health Project research group. Because Monroe County has a low risk population that is well educated, high income, and has few language barriers, rising cancer rates are unexpected, and all potential causes should be investigated by health officials.

Fermi 2 reactor began operating June 21, 1985. However, it ran very little after the initial low-power start-up until a warranty run in January of 1988, marking the commercial start-up of the reactor. In the early 1980s, the Monroe County cancer death rate was 36th highest of 83 Michigan counties, but by the early 20005, it had moved up to 13th highest. From 1979-1988, the cancer death rate among Monroe County residents Sources:

1. Fermi 2 incurred near miss accidents on March 28, 2001 (emergency diesel generator was inoperable for over 7 days) and August 14, 2003 (loss of offsite power due to northeast blackout). Source: Greenpeace USA. An American Chernobyl: Nuclear Near Misses at U.S. Reactors Since 1986. www.greenpeace.org, April 26, 2006.

2. U.S. Centers for Disease Control and Prevention, http://cdc.wonder.gov, underlying cause of death. Death rates are adjusted to 2000 U.S. standard population. Includes ICD9 codes 140.0-239.9 (1979-1983) and ICD-lO codes COO-D48.9 (2000-2005). Whites account for over 95% of Monroe residents.
3. Cancer Death Rates, Monroe County vs. U.S. 1979-1988 and 1989-2005, age 0-24

	Monroe County		**Deaths/100,000 Pop.**		
Period	**Cancer Deaths**	**Avg. Pop.**	**Monroe**	**U.S.**	**%vs. US**
1979-1988	22	56,234	3.91	4.96	**-21.2%**
1989-2005	42	51,407	4.86	3.79	**+45.5%**

(**0084-1** [Mangano, Joseph])

Response: *The comments refer to the cancer statistics in the area surrounding the Fermi site and the health effects of radiation exposure. The NRC staff will evaluate human health impacts from radiation exposure from the operation of the proposed Fermi 3 plant in Chapter 5 of the EIS. Chapter 5 will also discuss the dose standards used in the assessment.*

Comment: They will be dangerous virtually forever. In June 2005, the National Research Council found that scientific evidence shows that exposure to radiation at even barely detectable doses can cause DNA damage that leads to cancer. There is no safe dose of exposure to radiation, no matter how small. In Monroe County, the cancer death rate has jumped from 2% above the U.S. in the early 1980s [when no reactors operated] to 10 % above the U.S. in this decade. Cancer mortality in children who are most susceptible to radiation soared from 39% below the U.S. to 58% above the U.S.

Dr. John Gofman, one of the world's foremost radiation researcher has spent over fifty years on the study of low-level radiation. A physician and doctor of nuclear/physical chemistry, Dr. Gofman co-discovered uranium -233 and isolated the world's first workable plutonium for the Manhattan Project. . He concludes: There is no safe dose or dose-rate of ionizing radiation with respect to the induction of human cancer. It would be impossible for low total doses of ionizing radiation, received slowly from routine occupational environmental sources, to be less carcinogenic than the same total doses received acutely. There is very strong support in the direct human evidence for recognizing that the cancer risk is probably more severe per dose unit at low doses than at moderate and high doses.
The nuclear industry does not have the technical ability to keep exposure to zero. They allow workers to be irradiated at so called allowable levels and the public to be poisoned at allowable levels. They continue to spread the myth that there is a safe dosage. Past estimates of safe levels have been continuously underestimated. In 1910, safe allowable exposure was thought to be 100 rems per year for workers; today it is 5 rems per year. The British National Radiological Board has lowered its permissible levels to 2 rems. A study published in 1991, in the Journal of the American Medical Association reveals the occurrence of leukemia is 63% higher among white male atomic workers at Oak Ridge National Laboratory than among all U.S. white males. Most of the workers in the study received total radiation doses of less than 1 rem total exposure throughout their entire employment. (**0019-8** [Schemanski, Sally])

Comment: I am concerned about the potential long-term health risks (specifically for children) posed by living close to two nuclear power plants. When the nuclear industry calculates "acceptable" radiation exposure for the public, it uses a model of a standard, healthy 150 pound

man. But the population is far from homogeneous. Old people, immuno-depressed patients, normal children and some with specific, inherited diseases are many times more susceptible to the deleterious effects of radiation than normal adults. (Helen Caldicott, Nuclear Power Is Not the Answer).

In the only attempt federal officials have made to examine cancer rates near U.S. nuclear plants, a study published in the European Journal of Cancer Care found that Leukemia death rates in U.S. children near nuclear reactors rose sharply (vs. the national trend) in the past two decades. The greatest mortality increases occurred near the oldest nuclear plants, while declines were observed near plants that closed permanently in the 1980s and 1990s. (European Journal of Cancer Care. 17(4):416-418, July 2008. MANGANO, JOSEPH; SHERMAN, JANETTE D.)

Given these factors, how can we be assured that increasing nuclear power generation in Monroe County does not put our children at risk? Does the Nuclear Regulatory Commission have any processes in place to assess this risk? (**0036-1** [Nash, Sarah])

Comment: As confirmed for the seventh time by the U.S. National Academy of Sciences in 2006 in its Biological Effects of Ionizing Radiation report (BEIR VII), every exposure to radiation increases the risk to human health. Radioactivity can damage tissues, cells, DNA and other vital molecules, potentially causing programmed cell death (apoptosis), genetic mutations, cancers, leukemias, birth defects, and reproductive, immune, cardiovascular and endocrine system disorders. (**0050-11** [Kamps, Kevin])

Comment: BEIR 7, which was published in 2005 by the National Academy of Sciences, they reconfirmed that there is no safe threshold for human health for exposure to radiation. In the fall of this year, the Committee to Bridge the Gap, they discovered that EPA was in the process of gutting, secretly, radiological protections standards for the U.S. (**0058-22** [Cumbow, Kay])

Comment: As confirmed for the seventh time by the U.S. National Academy of Sciences in 2006, every exposure to radiation increases the risk to human health. Radioactivity can damage tissues, cells, DNA, and other vital molecules, potentially causing program cell death, apoptosis, genetic mutations, cancers, leukemias, birth defects, and reproductive immune cardiovascular and endocrine system disorders.

Among the many environmental concerns surrounding nuclear power plants, there is one that provokes public anxiety like no other, the fear that children living near nuclear facilities face an increased risk of cancer. The carcinogenic effects of radioactive exposure are most severe among infants and children. Leukemia is the type of childhood cancer most closely associated with exposures to toxic agents, such as radiation, and has been most frequently studied by scientists.

In the U.S., childhood leukemia incidents has risen 28.7 percent from 1975 to 2004. According to CDC data, suggesting that more detailed studies on causes are warranted. I would like to bring several of the recent studies as short as possible. The first one I am referring to is the one done by epidemiologist Joseph Mangano, Director of the Radiation and Public Health Project, and toxicologist Jeannette Sherman, who is a Medical Doctor of the Environmental Institute at Western Michigan University. They analyzed leukemia deaths in children under 19 years of age. In the 67 counties located near 51 nuclear power plants, starting from 1957 until 1981, so from `57 to `81 it's referring when the nuclear power plants were started.

The same counties have been also studied in a NCI study. About 25 million people live in these 67 counties, and the 51 plants represent nearly half of the U.S. total. Using mortality statistics from the U.S. Centers for Disease Control and Prevention, Mangano and Sherman found that in 1985 to 2004, the change in local child leukemia mortality versus the U.S. average, compared to the earliest years of reactor operations were as follows: An increase of 13.9 percent near nuclear plants started in the year `57 until 1970, so-called oldest plants, so an increase of almost 14 percent near oldest nuclear plants. I'm talking about children leukemia death rates. An increase of 9.4 percent near nuclear plants started in `71 until `81, an increase of 9.4 percent in children living near newer nuclear power plants. And a decrease of 5.5 percent near nuclear plants started in `57 until `81 and later shut down. So we have a decrease in children leukemia deaths, 5.5 percent of decrease if the children were living nearby to a shutdown nuclear plant.

The conclusion that the author made is the13.9 percent rise near the older plant suggests a potential of great effect of greater radioactive contamination near aging reactors, while the 5.5 percent decline near closed reactors suggest a link between less contamination and lower leukemia rates. The large number of child leukemia deaths in the study, like there were 1,292 children who died of leukemia during the study, makes many of the results of the study statistically significant. (**0058-28** [Pfeiffer, Jelica B.])

Comment: So there are valuable studies that can support our study that I just presented, and reaction of German government and British government, how seriously they are taking those U.S. studies now. And based on it I'm calling for a moratorium of not issuing more permits for new nuclear reactors because there's still too many questions to be answered and more studies to be done.

Another point, reason for moratorium, is the fact that EPA has no regulations in place limiting the presence of radioactive elements in our air, water, and soil. So we want to give a bit of time to EPA to come to those standards.

Third point: Considering the high vulnerability to radiation in our children and pregnant women, the reference, man, should be changed to reference, pregnant woman. (**0058-29** [Pfeiffer, Jelica B.])

Comment: the first thing that comes to mind is a baseline for radiation and other pollution exposure to air, land, water, sediment, fish, wildlife, and incorporating not just the Great Lakes, but the Detroit River, Raisin River, Swan Creek, where there is potential for plant uptake or food chain bioaccumulation of radiation or other pollutants that has already occurred from Fermi 1, Fermi 2. And before you can make an estimate of a modeling of how much would occur from a potential Fermi 3. (**0058-106** [McArdle, Ed])

Comment: I am concerned about the impact that another nuclear power plant would have on those with compromised immune systems. What studies have been done on the cumulative low levels of radiation on pregnant women, children and the elderly? Can you assure us that the construction of Fermi III will not effect the health of those with compromised immune system? (**0060-1** [Petrak, Genevieve])

Comment: I am particularly concerned about the health risks of nuclear power. How can you assure us that building of Fermi III is safe for us and especially for our pregnant mothers and their unborn children? Scientific research tells us that there are no safe levels of exposure to radioactive substances. Can you assure us that the building of a new nuclear power plant will not impact in a negative way the health of our citizens. (**0063-1** [Bell, Mary Faith])

Comment: The thing about radiation is you can't see it or smell it so it is difficult to provide evidence of its presence as a pollutant. But it does accumulate in body tissue and may cause damage to the structure of DNA.

The National Academy of Science's National Research Council in its report on the health effects of radiation exposure, states that the preponderance of scientific evidence shows that exposure to radiation, at even barely detectable doses, can cause DNA damage that leads to cancers, especially in fetuses and children. There is no threshold of exposure below which low levels of ionizing radiation can be demonstrated to be harmless or beneficial. The health risks, particularly the development of solid cancers in organs, rise proportionately with exposure?[2]

What is not fully appreciated is that these chemicals do not do their worst damage by exposing people to radiation in the environment. Rather the real damage is done through ingesting them through breathing, drinking and through the food chain, especially through fresh milk and other dairy products, concentrating in key organs like the lung, thyroid, bone marrow and the female breast. These internal radiation doses are especially harmful to infants in the womb, children and older people with weaker immune systems.

[2] BEIRVII: Health Risks from Exposure to Low Levels of Ionizing Radiation , National Academies Press, 500 Fifth Street, NW, Washington, DC 20001. (**0083-13** [Mumaw, Joan])

Response: *The comments refer to the health effects of exposure to low levels of radiation, the BEIR VII report ("Health Risks from Exposure to Low Levels of Ionizing Radiation"), and the cancer statistics in the areas surrounding nuclear power plants. The NRC staff will evaluate human health impacts of radiation exposure from the operation of the proposed Fermi 3 nuclear plant in Chapter 5 of the EIS. The NRC staff will also discuss the dose standards used in the assessment.*

Comment: The 1993 accident at Fermi 2 and subsequent release of radio-active water into Lake Erie in 1994 was not a good thing. How many similar releases of radiation can our waterways stand before they become radio-active? (**0032-4** [Rysztak, Robert])

Comment: Large-scale accidental tritium leaks into groundwater in Illinois, that had been covered up for a decade by the nuclear utility and state environmental agency, were uncovered in early 2006 by a concerned mother whose daughter had contracted brain cancer at age 7. A cluster of rare childhood brain cancers were then documented in the community of Morris, Illinois, home to three atomic reactors and a high-level radioactive waste storage facility. The scandal led to the revelation of widespread accidental tritium releases nationwide at almost all atomic reactors. (**0050-7** [Kamps, Kevin])

Comment: Incredibly, Fermi 1 experienced an accidental release of thousands of gallons of tritium-contaminated water in 2007, 35 years after the reactor had been permanently shut down! The nearby Davis-Besse reactor also recently admitted tritium leaks into the environment. (**0050-9** [Kamps, Kevin])

Comment: Liquid releases, which at Fermi are discharged into Lake Erie, include tritium, which is radioactive hydrogen. Tritium flows wherever water flows. It is prohibitively expensive to filter out. So, NRC allows it to be released into the environment. Tritium can incorporate into the human biological system even down to the DNA level. Once organically bound, tritium can

persist in the human body for long periods, emitting dangerous, damaging, radioactive doses. Tritium can cross the placenta from mother to fetus. (**0058-35** [Yascolt, Stas])

Comment: Large scale accidental tritium leaks into groundwater in Illinois have been covered up for a decade by the nuclear utility and state environmental agency. They were uncovered in early 2006 by a concerned mother, whose daughter had contracted brain cancer at age 7. A cluster of rare childhood brain cancers were then documented in the community of Morris, Illinois, home to three nuclear reactors and a high level radioactive waste storage facility. The scandal led to a revelation of widespread accidental tritium releases nationwide at almost all atomic reactors. These are the documented ones. We don't know about the undocumented ones. (**0058-36** [Yascolt, Stas])

Comment: Accidents at atomic reactors can lead to a large scale release of harmful radioactivity into the environment. For instance, right here at the poster child for anti-nuke, right here at Fermi, we had the Fermi 2 turbine disintegrated in 2007. Now, it seems incredible that it could happen, but actually this brought about a release of radioactive water.

I can't believe that it happens, as many safeguards that are built in, but these things do happen. It seems impossible, but it did happen, right here. On top of that, this also happens to be the place, the site that we have the example of Fermi 1, the sodium reactor. And there actually was a release, believe it or not, in 2007, of water on the decommissioning of Fermi 1. I believed for years and years that it was a problem that was long solved. It continues on, the legacy. We are to leave this to our children, our grandchildren, our great-grandchildren, for generations, for thousands of years. (**0058-37** [Yascolt, Stas])

Response: *The comments refer to potential accidental radiological releases. In Chapter 5 of the EIS, the NRC staff will evaluate human health impacts from radiation exposure during operation of the proposed Fermi 3 unit, including unanticipated operational occurrences. Chapter 5 also will evaluate the risks associated with postulated reactor accidents.*

Comment: Given Fermi 3's inevitable radiological and toxic releases, drinking water intakes from Lake Erie must be required to constantly monitor contaminants in order to adequately protect public health. NRC should address the synergistically harmful health impacts due to human exposures to radioactivity and toxic chemicals. (**0050-16** [Kamps, Kevin])

Response: *This comment relates to the possible synergistic effect of chemicals and radiation and the cumulative impacts of the proposed Fermi 3 plant. The NRC staff will evaluate cumulative impacts from the operation of the proposed Fermi 3 plant in Chapter 7 of the EIS.*

2.14 Comments Concerning Accidents – Design Basis

Comment: The things that cannot be predicted are the only things that seemed to have happened that cause of grief. The turbine generator set at Fermi, when that happened and spilled a lot of water. I attended the St. Mary's meeting there with the water purification engineer for the plant, and it was very difficult to get across that this water, when it was to be discharged to the Lake, would be purer than the water of the Lake itself. I have been at Prairie Island, Donald C. Cook, Fermi 2, Prairie plant, over on the far end of the Lake, Marble Hill, the Clinton project. I was INPO Representative for Indiana Public Service. I've been at Three Mile Island two times after the accident writing procedures for those people, including radiological control

and administrative procedures that had to do with control of chemicals and estimating. (**0058-125** [Meyer, Richard])

Comment: How many radioactive spills and shutdowns have taken place in U.S. nuclear power plants over the past 30 years? How likely or unlikely would new nuclear plants be to have such an accident? What would be the result? (**0081-2** [Ryan, Janet])

Response: *The comments refer to nuclear accidents and their consequences. The environmental impacts of postulated accidents will be evaluated, and the results of this analysis will be presented in Chapter 5 of the EIS. The impacts of past operation of Fermi 1 and 2, including accidental releases of radiologically contaminated materials, will be considered in Chapter 7 of the EIS.*

2.15 Comments Concerning Accidents – Severe

Comment: How do we stay safe? I live in the 1 mile red zone of that plant, I would hate to become a statistic. I can see the Davis Bessie plant across the lake on a clear day - I believe the people who live it that area have to take iodine tablets, because of problems that have been discovered at the plant. Now every isn't 100% safe, but when something goes wrong at a nuclear plant it can have a wide range of health problems, environmental problems that can last for years and decades beyond the occurrence - Chernobyl. (**0013-2** [Sanchez, Mira])

Response: *The environmental impacts of postulated accidents (i.e., design basis and severe accidents) will be evaluated, and the results of this analysis will be presented in Chapter 5 of the EIS.*

Comment: The inevitable safety risks of accidents associated with Fermi 3 favor efficiency and renewables as safer alternatives. A 1982 NRC report showed that a major accident at Fermi 2 releasing catastrophic amounts of radioactivity could cause 8,000 peak early fatalities, 340,000 peak early injuries, 13,000 peak cancer deaths, and $136 billion in property damage. Given population growth since, casualties would be even worse in the present day. And when adjusted for inflation, such damages would now top $288 billion. Similar or even worse casualties and damages could result from an accident at the larger Fermi 3 reactor. In fact, untested new reactors with undetected technical glitches are at significantly increased risk of suffering a major accident. Fermi 1, Three Mile Island and Chernobyl were new reactors when they suffered their infamous accidents. Old reactors are also at elevated accident risk due to age-related breakdown of safety significant systems, as occurred at Davis-Besse nuclear plant near Toledo in 2002. Thus, the geriatric Fermi 2 and the brand new Fermi 3, immediately adjacent to one another, would represent the worst of both worlds, the extremes of atomic reactor risks. An accident at one could even spread to the other. (**0050-3** [Kamps, Kevin])

Response: *The EIS will include an evaluation of the risks associated with potential severe accidents including accidents that involve reactor core melts. The potential consequences of postulated design basis and severe accidents will be discussed in Chapter 5 of the EIS. The evaluation in the EIS will include an estimate of the cumulative risk of severe accidents for all units at the Fermi site.*

Comment: Accidents at atomic reactors can lead to the large-scale release of harmful radioactivity into the environment. For example, the turbine explosion at Fermi 2 reactor on Christmas Day, 1993 led to DTE's release of two million gallons of radioactively contaminated

water into Lake Erie. A new reactor at Fermi will effectively double such accident risks: break in phase accident risks at the new Fermi 3 reactor, and break down phase accident risks at the deteriorated, old Fermi 2 reactor. (**0050-8** [Kamps, Kevin])

Response: *This comment refers to nuclear accidents and their consequences. The environmental impacts of postulated accidents will be evaluated, and the results of this analysis will be presented in Chapter 5 of the EIS. In addition, the evaluation will include an estimate of the cumulative risk of severe accidents for all units at the Fermi site.*

Comment: Even Fermi 1's melted down fuel from its 1966-we-almost-lost-Detroit accident, still sits in so-called temporary storage in Idaho. I thought I'd mention the Fermi 1 meltdown because John McCain didn't seem to know about it when he visited Fermi last August, and the Nuclear Energy Institute's top lobbyist in Washington, DC, in an interview on NPR radio, seemed to not know about that meltdown either. (**0058-71** [Kamps, Kevin])

Comment: The children of Hiroshima and Chernobyl are a tragic testament of the destruction of DNA by radiation. Workers at nuclear power plants face increased risks of exposure to radiation, especially when there are accidents.

Recent accidents have been the collapse of a road in Covert. A car fell through the road, broke cables, then washed downstream in the flooded Brandywine Creek. Embrittled Palisades was left without communications while Verizon workers tried to sift through the ice, mud, and water to fix the severed cables. At DC Cook a rotor blade spun off, spilling fuel and causing a fire. Firemen spent hours trying to stop the blaze. That facility is shutdown and over 300 engineers are reportedly working on the problem. In Vermont a cooling tower collapsed.

The list of nuclear reactor problems is endless. Internal sabotage may be another issue. Palisades has had repeated incidents over the decade. Safety levers are glued down, and recently workers were locked in the reactor until the next shift arrived. Workers were unable to phone out for help. This is before the flooding incident. Fermi 3, and any other new nuclear reactors, may face internal problems. Even with employee screenings things can happen.

In the 1990's, the day they almost lost Detroit, Fermi had a near meltdown, and the plant was flooded with water to cool it. The contaminated water was released into Lake Erie, despite efforts to stop it. We are always a heartbeat away from Chernobyl. To think that cannot happen here is ignorance and arrogance.

At an environmental conference I attended, Dr. Helen Caldicott gave a dramatic slide show of the results of Three Mile Island. Nature has mutated. In the area surrounding the nuclear power plant, dandelions have three heads, animals were born with extra appendages, women miscarried. Nothing will ever be the same there. (**0059-13** [Barnes, Kathryn]; (**0083-23** [Barnes, Kathryn]))

Response: *These comments refer to nuclear accidents and their consequences. The environmental impacts of postulated accidents will be evaluated, and the results of this analysis will be presented in Chapter 5 of the EIS. The reference to Hiroshima is beyond the scope of the analysis in this EIS, and it will not be addressed in the EIS.*

Comment: The 50 mile plume, which is considered to be the area of greatest impact, is much shorter than what I perceive as the hazard zone for the reactor planned to be built, and this is true in several ways. First off, it's obvious that winds and waterways carrying fallout from a

supposed meltdown or military strike explosion are going to keep carrying radioactive materials far beyond 50 miles.

In the case of Chernobyl, as for any reactor meltdown, people, animals, and agriculture, air, water and soil, beyond 300 miles were and are directly adversely affected. To arbitrarily set the limits at 50 miles must be slightly convenient for both the Nuclear Regulatory Commission and industry, in this case DTE. But it dramatically shorts the public commons. Actually wind currents from Chernobyl have spread all around the world, and much may have precipitated into the Great Lakes. Any meltdown or blast from any one of the Fermi's would likely take out the other two nearby facilities, causing even greater calamities. There is much more to be considered regarding physical distance. (**0058-81** [Newnan, Hal])

Response: *Chapter 5 of the EIS will include an evaluation of the risks associated with potential severe accidents including accidents that involve reactor core melts. The evaluation will include estimates of health and economic risks to a distance of 50 miles from exposure to the plume and from exposure to contaminated land and water. These risks will be compared with risks associated with the existing units. The NRC staff has determined that consequences beyond 50 miles are very small. In addition, the severe accident consequence analysis assumes a complete wash down of the contaminated plume between 40 and 50 miles of the accident.*

Comment: If a major waste leakage or a meltdown were to occur, a water source critical to millions would be in jeopardy. Pure water on planet Earth is a major concern now. Who knows how costly, pervasive and long lasting that destruction would be? (**0072-2** [Timmer, Marilyn])

Response: *The potential consequences of postulated design basis and severe accidents will be discussed in Chapter 5 of the EIS.*

2.16 Comments Concerning the Uranium Fuel Cycle

Comment: Where do you present a thoroughly responsible management method for the full cycle of radioactive materials, front to back end, including its risks during transport, storage and management? (**0004-6** [Carey, Corinne])

Comment: Now Fermi has been there and running for quite some time and knock on wood will continue to do so safely. But my major concern to this what is going to happen to the waste produced at the plant? Yucca mountain was discussed and it still hasn't be approved for depository purposes of nuclear waste. So what happens, where does this go? I would like to think that nuclear energy is one of our future sources of power, but where does the waste go? (**0013-1** [Sanchez, Mira])

Comment: Nuclear Waste: first and foremost, there is nothing environmentally responsible or sustainable in nuclear waste. High level radioactive waste will be with us for thousands of years. We do not have any depository for the waste even after decades of analysis and debate. Even if the proposed Yucca site were opened today it would be filled by the time the waste of Fermi 3 and other proposed nuclear plants are operating. Given this reality, there is no foundation for assuming that there will be a political or technological solution to this highly toxic material. Creating more nuclear waste when there is no place to put what we already have is akin to financial institutions creating investment vehicles when they had no understanding of the financial risk or financial assets unpinning the offerings. We are all realizing the folly of that

attempt. Simply put, creating more nuclear waste is an additional fouling of our home, our nest, our earth. (**0016-2** [Rivera, Gloria]; **0058-67** [Weber, Margaret]; **0082-33** [Weber, Margaret])

Comment: The nuclear fuel chain is complex, impossible to monitor, usually effects poor and indigenous communities, produces substantial amounts of toxic and radioactive waste and has tragic consequences for human health and the environment. It is a cycle of destruction at every step.

Environmental concerns must start at the beginning of the cycle and not at the power plant. In terms of radiation doses and number of people affected, uranium mining is one of the very hazardous steps in the cycle. Mining is one of the most CO2 intensive industrial operations. Mining contaminates drinking water from aquifers, rivers, lakes and streams with arsenic, radium, thorium and other heavy metals. Tailings, which become hills of fine sand-like solids, retain 80-90 % of the radioactivity of the ore that is left in piles to blow in the wind. Thorium 230 in tailings decays into radium-226, which in turn decays into radon-222, which can cause lung cancer. The radioactive hazards of tailings will persist for over 100,000 years.

The conversion of yellowcake to Uranium Hexafluoride UF6 creates airborne and waterborne uranium and chemicals such as hydrofluoric acid, nitric acid and fluorine gas. Uranium is an alpha emitter and is extremely hazardous to ingest or inhale.

The enrichment process includes discharges of polychlorinated biphenyls [PCB'S], chlorine, ammonia, nitrates, zinc and arsenic. The two enrichment plants in Portsmouth, Ohio and Paducah, Kentucky released 818,000 pounds of Freon in 1999. There are over 700,000 tons of uranium hexafluoride in decaying metal canisters at Ohio, Kentucky and Tennessee sites. (**0019-2** [Schemanski, Sally])

Comment: The fission process at a nuclear power plant creates over 240 dangerous fission products. Some of these radioactive wastes have hazardous lives of tens of thousands of years. The NRC, in evaluating these hazardous radioactive compounds, stated they will remain well above unrestricted release levels for a period of time far exceeding the known lifetime of any manmade structure. (**0019-7** [Schemanski, Sally])

Comment: Theoretical hypotheses that conclude that radioactive substances can be handled and stored safely, without incident, do not match up with reality. No substantial proof has ever been presented through past experiences or through extensive testing that it is even possible to build a safe, leak proof dump. Any construction worker will tell you control of the movement of water is impossible. We have no control over the movement of a substance through the surface and subsurface of the earth. We cannot predict a stable society for hundreds, less thousands of years, nor can we prevent earthquakes, tornadoes, wars, terrorism, human error or common traffic accidents involving transport of radioactive waste.

The nuclear industry has created an elaborate scheme to divert responsibility for this dangerous radioactive waste. If these wastes were so harmless and a safe technology existed to handle them, the generators would remain titleholders. The nuclear industry has billions of dollars and a slate of experts. Their conclusions are very clear: They do not want title to this waste. There is no safe technology. (**0019-9** [Schemanski, Sally])

Comment: I am very concerned about the nuclear waste - both high and low levels of radioactive nuclear waste that's already existent. The possibility of adding more is frightening. There are currently 104 nuclear powerplants in the U.S. To add to that number, with no long-

term plan in sight flies in the face of good judgment. The possibility of an additional plant in this area (Monroe Michigan) could be a threat to the common good. (**0021-1** [Hart, Donna])

Comment: For some time, I have been aware of a movement toward building a third Fermi Nuclear Power Plant. Having studied issues regarding nuclear power, I feel great concern over such a possibility.

This concern focuses especially on what I perceive as an inability of the industry and the DOE to safely store nuclear waste. The efforts at Yucca Mountain have proved unsuccessful. Some nuclear waste has a half life of thousands or millions of years. Producing it without a plan for its safe storage seems extremely irresponsible. The current practice of temporarily storing the waste at the nuclear power plant site is not a satisfactory solution.

We place a heavy burden on our generation and on the generations to come when we produce such a dangerous product which we do not know how to safely store. Decisions made about this issue bear heavy responsibility.

I am relying on you to carry out your duty as a government agency responsible for enforcing EPA regulations and for granting or denying a license to operate a nuclear power plant. Please advise me how the NRC is going to deal with the issue of nuclear waste and what impact the reality of its dangers will have on the licensing decision. (**0022-1** [Rabaut, Martha])

Comment: I am concerned about the issue of the storage of radioactive waste, which should be a major consideration in the construction of the proposed nuclear power plant: Fermi III.

First, although nuclear power plants supply almost 20 percent of the electricity in the United States, the dangers of nuclear waste far outweigh the advantages. There is no safe place for storage in our country. Yucca Mountain is an unstable geologic location. (**0023-1** [Mechtenberg, Marilynn])

Comment: Finally, what about the waste sites? In a geologic repository, isn't seepage a possibility? If the waste got into the soil, vegetation growing from it, if eaten, could harm individuals. Also, radionuclides are carcinogenic. (**0023-3** [Mechtenberg, Marilynn])

Comment: My concern is that thus far U.S. has not yet successfully provided sites for the existing radioactive nuclear waste from its 104 nuclear plants. The effort of the Yucca Mountain, Nevada site is failing. There are millions of gallons of radioactive waste, thousands of tons of spent nuclear fuel and materials and huge quantities of contaminated soil and water at 108 sites throughout U.S. These wastes are endangering plant, animals and humans who inhale, ingest and absorb them. I am asking the U.S. Nuclear Regulatory Commission and the DOE to address this serious deficiency before any plans are proposed for any new construction of nuclear power plants. (**0025-1** [Van Ooteghem, Rose Bernadette])

Comment: My concern is the Storage of the Spent Rods since nothing has been determined as yet of where or how this problem will be solved. We now know that President Obama will withdraw the License Application for Yucca Mountain site.

Since I reside on the shores of Lake Erie, I have a real concern of storing the waste in cement casks for an unlimited number of years without any data on file for safety of leaching and seeping... I am requesting a reply from the NRC to inform me of how these problems will be addressed. (**0030-1** [Conner, Mary V.])

Comment: The nuclear waste issue is still unresolved. Yucca Mountain is above the water table while Canada plans to put mid-level waste under Lake Huron, so it all seems like a big guess as to which is the safest disposal method. The transportation routes to Yucca Mountain endanger every American home. With worst case scenarios to consider with every shipment, thousands planned, too risky. If on site storage becomes the future of the waste issue instead of Yucca Mountain, then how will that affect the water rights of the Great Lakes region? (**0031-3** [Rysztak, Robert])

Comment: The nuclear waste issue is still unresolved. Not only is Yucca Mountain a bad idea, all the transportation routes to get the waste to Nevada is even worse, as ideas go. (**0032-6** [Rysztak, Robert])

Comment: There is also the "on the ground" literally storage of onsite radioactive waste, awaiting final resolution of the Yucca Mountain question in terms of national storage of waste. How will construction and operation of the new facility compound this situation as it appears as I write this, the question of Yucca Mountain remains unresolved in the permanence of the decision to build the Nevada facility, as well as transportation of these materials to the facility. (**0038-3** [D'Amour, James Carl])

Comment: Reliance on nuclear energy will result in creation of mining waste at whatever is the source of nuclear fuel. I believe that we should minimize mining impact on our planet. (**0039-5** [Mitchell, Rita])

Comment: The NRC does not regulate the disposition of the nuclear waste rods from the new proposed plants. It was noted in the last NRC Meeting that I attended, that there are some 101 Nuclear Power plants now operation in the US, and that by 2020 or sooner, if all the waste rods from these plants were shipped to Yucca Mt in Nevada, it would be filled to capacity. To date, no state has allowed moving these waste rods across their borders to be moved to the proposed Yucca Mt site. I was also recently advised that Yucca Mt. is in an earthquake region with possible ground water contamination and exposure to the waste rod radiation. (**0041-3** [Englund, Lance])

Comment: There is still no final storage solution for nuclear waste that remains deadly for 100,000 years. How crazy can we be to risk the possibility of destroying every living thing in this region should the temporary cement casks leak. Until there is a permanent storage solution, a permit should be denied. Even then, the danger of transporting such dangerous waste negates any possible benefit from such a plant. (**0047-2** [Bettega, Gayle])

Comment: Even more alarming is the fact that Fermi 2 has nowhere to store it's low level radioactive wastes at this time. That issue must be solved before there is even a consideration of Fermi 3. (**0047-4** [Bettega, Gayle])

Comment: When reactors were originally built, nuclear proponents optimistically hoped that the nuclear waste problem would somehow be solved in a timely fashion. Now we know better. Wherever a reactor is built, the high-level waste that it produces will stay on site for decades, and possibly even in perpetuity. The proponent should be required to justify siting a nuclear reactor near one of the largest and most important bodies of fresh water on the North American continent, given the fact that these wastes may remain there indefinitely. Would NRC willingly approve a high-level waste repository right on the edge of the Great Lakes? (**0048-5** [Edwards, Gordon])

Comment: The proponent should be required to examine the life-cycle environmental impacts of the reactor, including the steps in the uranium fuel chain: perpetual management of radioactive tailings, total reclamation of uranium mining areas, health and environmental impacts of enrichment facilities, as well as eventual reprocessing of irradiated nuclear fuel at some future time. This proponent should be required to include in this examination an accurate summary of the environmental impacts to date of such activities in various locales throughout the USA and elsewhere in the world. (**0048-6** [Edwards, Gordon])

Comment: Radioactivity releases occur not only at reactors, but at every step of the nuclear fuel chain. Accurate accounting of all radioactive wastes released to the air, water and soil from the entire reactor fuel production system is simply not available. The nuclear fuel chain includes uranium mines and mills (often located near indigenous peoples communities), chemical conversion, enrichment and fuel fabrication plants, reactors, and radioactive waste storage pools, casks, trenches and other dumps. Fermi 3 would increase the risk that new uranium mining in the Great Lakes basin, such as at Eagle Rock near Marquette and the Keweenaw Bay Indian Community in Michigan's Upper Peninsula, would go ahead. (**0050-10** [Kamps, Kevin])

Comment: There are no safe, sound solutions for the deadly radioactive wastes that Fermi 3 would generate. The Obama administration has pledged to cancel the proposed Yucca Mountain dumpsite in Nevada, due to its geologic unsuitability. Reprocessing irradiated nuclear fuel, to extract plutonium for supposed re-use, risks nuclear weapons proliferation and disastrous radioactive contamination of the air and water, and would cost taxpayers hundreds of billions of dollars. On-site storage in indoor pools or outdoor dry casks, as currently done at Fermi 2, risks catastrophic radioactivity releases due to accident or attack, as well as eventual leakage due to breakdown of the storage containers. A 2001 NRC report, for example, revealed that 25,000 fatal cancers could result downwind of a waste pool fire. A 1998 anti-tank missile test at the U.S. Army's Aberdeen Proving Ground showed dry casks vulnerable to attack. Even consolidating wastes at centralized interim storage centers would leave them vulnerable to accidents or attacks, and risks environmental injustice, as low income communities of color are most often targeted. All away-from-reactor storage proposals would risk severe accidents or attacks upon shipping containers on the roads, rails, or waterways, including the Great Lakes. Even Fermi 3's so-called low level radioactive wastes have nowhere to go. Barnwell, South Carolina has closed its dumpsite to Michigan wastes. Every low level dump opened in the U.S. has leaked, and most have had to be closed. An imminent Texas dump may be licensed to accept wastes from Fermi 3 sometime in the future, but puts the underlying Ogallala Aquifer at risk of radioactive contamination. Especially considering cleaner alternatives, such as efficiency and renewables, it is a moral transgression against future generations to create a forever deadly hazard like radioactive waste, just to generate 40 to 60 years of electricity. Fermi 3 would increase the risk that Michigan would be targeted for a national high-level radioactive waste dumpsite, and/or a regional low level dump, as has occurred in the past. (**0050-2** [Kamps, Kevin])

Comment: I am not as confident that we will learn how to dispose of nuclear waste and we already have 2 plants here in Monroe, whose waste is waiting for someone to figure out how to dispose of it. (**0052-2** [Fedorowicz, Meg])

Comment: how we will be storing the radioactive waste. (**0052-4** [Fedorowicz, Meg])

Comment: The US has had since the 1940s to solve the problem of safely storing radioactive waste from nuclear power plants. It is still not solved. And so much of it sits, in temporary

storage arrangements. Some has been moved from place to place, hoping for a final resting place, but it has found no welcome. Until this issue is solved for the already spent fuel, the NRC should not approve any licenses for new facilities. (**0053-4** [Nordness, Dorothy])

Comment: It is unacceptable to dispose of this lethal waste in a water-soluble medium, rock salt, in a State practically surrounded by one of the largest bodies of fresh water on Earth. (**0054-2** [Drake, Gerald A.])

Comment: Dr. James Watson, Professor of Molecular Biology, Harvard University, and winner of the 1962 Nobel Prize for Medicine stated "an increasing number of our most informed scientific minds have very deep qualms about the widespread introduction of more nuclear power... I fear that when the history of this century is written, the greatest debacle of our nation will be... our creation of vast armadas of plutonium, whose safe containment will represent a major precondition for human survival, not for a few decades, or hundreds of years, but for thousands of years more than human civilization has so far existed." (**0054-5** [Drake, Gerald A.])

Comment: I would urge the scoping study to take a very hard look and examination of the risks that are involved in not having a safe way of disposing nuclear waste. (**0058-101** [Holden, Anna])

Comment: Uranium mining: And uranium mining is brought up in the Environmental Review. Uranium mining, the milling, the refining, the conversion, the enrichment, the transport, all carry a hefty carbon footprint. You cannot separate uranium from nuclear power plants. These processes, especially mining, is extremely toxic radioactive waste that affect the health of local communities and local watersheds.

Fish do not live in the Serpent River near where the uranium tailing piles are piled up there. These radioactive wastes last virtually forever. The lethal irradiated fuel that is produced has to be kept isolated from the food chain and our watersheds for over a million years, and the U.S. Government acknowledges that. We don't have containers that will last that long. So what we have essentially done is condemn every generation following us to guarding these wastes from terrorists, to watching these wastes for leaks, and then repackaging them when they leak -- a dangerous, expensive, and maybe impossible job. (**0058-21** [Cumbow, Kay])

Comment: The low level radioactive wastes generated at the Fermi nuclear power plant are piling up and piling up and piling up. There's no place for them to go. Fermi is actually adding to our problems, and we're to build yet another one? (**0058-38** [Yascolt, Stas])

Comment: my comments today are about the radioactive waste impacts of the proposed Fermi 3 reactor. Previous speakers in favor of this proposal spoke of Fermi 3 as environmental friendly, emissions free and clean. I would say that it is none of those things, based upon the radioactive waste generation alone. Electricity is about the fleeting byproducts of atomic reactors. The actual product is forever deadly radioactive waste.

There is no safe, sound solution for these radioactive wastes that would be generated by Fermi 3. Over 65 years after Enrico Fermi first split the atom during the Manhattan Project in Chicago to create the bomb, and over 50 years since commercial nuclear power began in the United States, we still do not have a geologic repository for permanent disposal of high level radioactive waste. No country on the planet that has nuclear power has a geologic repository. (**0058-70** [Kamps, Kevin])

Comment: The proposed dump site at Yucca Mountain, Nevada, looks very doubtful to ever open. President Elect Barack Obama has indicated he will withdraw the US Department of Energy's license application to the NRC to construct and operate the dump, due to the site's geologic unsuitability. Yucca's earthquake plagued rock formations are so fractures and fissured, that they leak water like a sieve. Any radioactive waste buried there would eventually escape into the environment, massively contaminating the drinking water supply for a farming community downstream, as well as for the Timbisha Shoshone Indian Reservation, for Death Valley National Park, and the National Wildlife Refuge, containing rare, endangered, and unique desert species.

Besides it geologic and hydrologic unsuitability, Yucca should never have been targeted in the first place. It is sacred Western Shoshone Indian land, as recognized by the so-called Peace and Friendship Treaty of Ruby Valley signed by the US Government in 1863. To the present day the Western Shoshone still conduct ceremonies at Yucca.

This environmental injustice, or radioactive racism, has also taken the form of so-called interim storage sites for high level radioactive waste, also known as parking lots dumps. The Department of Energy, the Nuclear Regulatory Commission, and the nuclear industry have targeted the Mescalero Apache in New Mexico, the Skull Valley Goshutes in Utah, and dozens of additional tribes. Although they have yet to open such a dump, such environmentally racist targeting continues still.

In December, the Department of Energy reported to Congress and the President, that a second national radioactive waste dump will be needed if new reactors, such as Fermi 3, are built. DOE reports that Michigan had previously been considered as a national dump site due to granite formations, and is now being considered again.

In addition, shale deposits are being considered for dump sites, including in Michigan and Ohio. In fact, every single Great Lakes state is on DOE's target list. The construction and operation of Fermi 3 would increase the risk that Michigan or Ohio would be targeted for a national high level radioactive waste dump. And I should add that in 1957 the National Academy of Science targeted Michigan for the salt formations in the Detroit area for this national dump site.

Other illusions of solutions are also dangerously flawed. Reprocessing or plutonium extraction from high level radioactive waste is disastrously polluting, astronomically expensive to taxpayers, and risks nuclear weapons proliferation. So-called regional interim storage, consolidating wastes at DOE sites or reactor sites such as Fermi, would simply create a radioactive waste shell game. The wastes would have to be moved again someday, effectively doubling the radioactive Russian roulette of shipping risks, or accidents or attacks on the highways, railways, and waterways, including the Great Lakes. (**0058-72** [Kamps, Kevin])

Comment: The lack of solutions means that radioactive wastes will continue to pile up at the Fermi site, vulnerable not only to accidents and attacks, but even eventual leakage to the environment as the containers degrade and fail. There is so much radioactivity in the wastes currently stored at Fermi, that releases to the environment could spell catastrophe for the entire region. A new reactor at Fermi would make this crisis much worse. Adding to the risks of eventual leakage is the fact that the hold-tight containers for dry cask storage chosen by DTE at Fermi are known to be flawed.

An industry whistle-blower, supported by an NRC dry cask storage inspector in this Midwest region, have discovered and made known that quality assurance violations on the hold-tight

casks are wide spread. They question the structural integrity of the casks sitting still, let alone being transported. (**0058-73** [Kamps, Kevin])

Comment: The only real solution to the radioactive waste problem is to stop making it in the first place. Fermi 3 should be stopped because of the deadly radioactive wastes it would generate, which would remain hazardous to all life forever after. (**0058-74** [Kamps, Kevin])

Comment: The NRC's nuclear waste confidence decision is more of a con game. It's a confidence game. It's an absurd policy.

I would like to conclude by mentioning that in addition so-called low level radioactive wastes generated at the Fermi 3 and Fermi 2 are already piling up with nowhere to go at Fermi 2. Some of these wastes can deliver a lethal, fatal radiation dose within 20 minutes, and must be handled remotely and encased in radiation shielding.

The national so-called low level radioactive waste dump at Barnwell, South Carolina, closed its doors to Michigan on July 1st, 2008. Fermi
3 would increase the mounting low level radioactive waste problem for which there is no solution. It would put Michigan back on the target list for a low level radioactive waste dump.

In the 1980's seven other Midwestern states had targeted several sites in Michigan, including Riga, St. Clair County, and Ontonagon, for a regional low level radioactive waste dump, a threat that was staved off by a groundswell of grass roots citizen opposition, the same thing that will stop Fermi 3.

Currently the most likely place Fermi 3's low level radioactive wastes would be dumped is at Waste Control Specialists in Andrews County, Texas, a new dump right on the New Mexico border. This dump site risks radiological contamination of the precious Ogallala Aquifer that spans numerous Great Plains states. (**0058-75** [Kamps, Kevin])

Comment: Next is the consideration of time. It is sheer hubris, pride, to consider guarding and safekeeping all the radioactive materials for the millions of years they will remain hazardous. And I'd like to just point out that that's against the short term economic impact that I, in Warren, will experience if this plant doesn't possibly go through, as well as the people in Monroe.
Is our short term interest like the next 50, 60, 70 years really the crucial thing here? I say, no, it's not. We are dealing -- when we consider building a Fermi 3, we're acting like young boys with a science kit they don't know how to use. Any kind of toxic material, except for radioactive probably, will probably come out of that experiment. Do we really want to mess with that? No.

Okay. For one thing the proposed Fermi 3 project is a commercial industrial one, whose useful life will end in 20 to 60 years, if they're lucky. But where and how is the money for safeguarding being given to be accumulated. It's not. Right? You need to have a plan to safeguard this stuff for millions of years. And how effective can that be? 2000 years ago Jesus was born, right? How likely is that? And how effective can that be over eons involved. (**0058-82** [Newnan, Hal])

Comment: The other issue that I would like for the scoping process to focus on is the risk associated with the disposal of nuclear waste. And this, again, has already been stated by several of the speakers. We know that there is no safe disposal process at this time. This goes back to the first nuclear activity that took place in World War II. We go back that far, and there is still no clue as to how we can have any kind of protection against the radioactivity as it's involved with the nuclear waste (**0058-99** [Holden, Anna])

Comment: Lastly, my question is, where will the nuclear waste go? So far there has been no answer to that. It is not right to dump nuclear waste on Indian land. It is not safe to transport it. It is not safe to store it. There are a multitude of unsolved problems in this huge topic. That is, Cask 4 with bad welds at Palisades; beach contamination in Wisconsin where a cask blew its lid off; Yucca Mountain earthquake; fisheries flooding; overturned semis spilling radioactive waste in Arizona; et cetera. An individual in Kalamazoo County stored barrels of radioactive materials and other toxins on his land. Now authorities are trying to clean up the mess. (**0059-21** [Barnes, Kathryn])

Comment: the questions that I asked regarding the amount of spent fuel being kept at Fermi are part of my main concern that the disposal of nuclear waste, the problem of disposal of nuclear waste is a huge problem in the world, not just in the United States.

I can't argue that the Detroit Edison site is a clean site, that there are beautiful plants and animals, beautiful plants going there and animals running around, that Detroit Edison is a good neighbor. No argument against that. And I can't argue that atomic energy doesn't release carbon dioxide, it doesn't contribute to the problems that coal fired plants do. But the problem is that the waste product has not been taken care of. We've got it piled up all over the world.

I didn't attend the meeting in September, or this fall, when a group of people was here and talked about the reprocessing of spent nuclear fuel. I'm not a scientist, I don't know a whole lot about it. But from what I've read about the reprocessing of spent nuclear fuel, it is not the solution to the nuclear waste problem. It's dirty; it's done in France at a place called La Hague, that's one of the biggest places where they do it. And radioactive water is poured into the Atlantic Ocean. (**0059-44** [Kaufman, Hedwig])

Comment: There's an outfit called Clean and Safe Energy, which is a proponent of reprocessing of spent nuclear fuel. The GNEP -- what's it called? The Global Nuclear Enrichment Partnership is an agency that was formed by the federal government a couple of years ago, in which countries are invited to join this partnership and they will be the exclusive providers of the reprocessing for spent nuclear fuel. If the problem of the disposal of nuclear spent fuel would go away I'd feel more comfortable about nuclear energy. But, I don't because it hasn't gone away. (**0059-46** [Kaufman, Hedwig])

Comment: The assessment must address the unsolved problem of long term storage of radioactive waste from operation of the proposed nuclear reactor.
(**0059-51** [Wolfe, Janet])

Comment: I would like to leave you with one comment by E.F. Schumacher, author of Small Is Beautiful. It is a book that was popular in the late `60s, `70s, and he's referring to nuclear power.

"No degree of prosperity could justify the accumulation of large amounts of highly toxic substances which nobody knows how to make safe and which remain incalculable danger to the whole of creation for historical or even geological ages. To do such a thing is a transgression against life itself, a transgression infinitely more serious than any crime perpetrated by man. The idea that a transgression is an ethical, spiritual, and metaphysical monstrosity, it means conducting the economical affairs of a man as if people did not matter at all." (**0059-65** [Keegan, Michael])

Comment: The proponents of nuclear energy are willing to trade two generations of electricity for hundreds of thousands of years of deadly waste. Just 10,000 years ago where we are sitting tonight, there was a sheet of ice a mile thick. And who can predict what the earth is going to be like a short thousand years from now? (**0059-68** [Farris, Mark])

Comment: I am terribly concerned about nuclear waste. There is no long term solution for its storage.. There are over 100 nuclear power plants in operation today which are temporarily storing the waste on site. Until we can find or create a long term solution for such waste, we should not construct a new nuclear power plant. We are poisoning our environment, and ourselves. Radionuclides are carcinogenic... I am asking that you let me know what you know about permanent storage of nuclear waste. (**0061-1** [Richmond, Roberta])

Comment: I am concerned about the ongoing problem of storing nuclear waste. President Obama has indicated that he will withdraw the license to operate the facility at Yucca Mountain. How will the industry and the Department of Energy deal with the safe long-term storage of nuclear waste? Temporary storage of the waste on site is unacceptable. Unless there is a fail-proof facility to store thousands of tons of waste that has already been generated, building a new nuclear power plant would be a waste of money. This issue is not only a concern to me. It is a concern to the people in Monroe and all of Michigan for years to come. I hope that as a government agency, you will carry out your responsibility for enforcing regulations in this manner. (**0069-1** [Eddy, Dorothy])

Comment: I am deeply concerned about the potential risks to future generations of the deadly nuclear waste that is stored at the Fermi II site. The idea of building a Fermi III before dealing with this major concern is most confounding to me. (**0072-1** [Timmer, Marilyn])

Comment: We have no business building a second nuclear power plant in Monroe County Michigan until we have established a permanent place to dispose of the spent nuclear fuel produced by the power plants we are currently operating. NO NEW NUCLEAR PLANTS UNTIL THE SPENT FUEL DISPOSAL PROBLEM IS SOLVED. (**0073-1** [Ripple, John])

Comment: The spent fuels from Fermi II reactor are currently being stored on site, as are the radioactive wastes from 104 other currently active reactors. As you are aware, some of these elements in the spent fuels will remain radioactive for millions of years, continuing to impact the health of man and the environment. Until the spent fuels from all nuclear reactor sites have been removed to a safe depository, I ask that no more permits to build be issued. To do so would be irresponsible. Please respond to my concerns.
(**0076-1** [Ripple, Florence])

Comment: My concern is how the industry and DOE are dealing with the safe, long-term storage of nuclear wastes, some which have half-lives in the thousands of years and some in millions of years. The efforts at Yucca Mountain, Nevada are failing. As a matter of fact, President Obama has indicated he will withdraw the license application to operate the facility. I understand the concern at Yucca Mountain is the unstable geologic strata.

With the opening of Yucca Mountain in doubt, there is no facility anywhere in the United States to store waste for the long term. Meantime the 104 nuclear power plants in operation today are temporarily storing the waste on site. That is unacceptable. Until there is a reliable, failproof facility to store the thousand of tons of waste already produced, a moratorium on new construction of nuclear power plants should be declared.

Not only is this issue a big concern to me, it is a concern for my children and grandchildren. As the government agency responsible for enforcement of the regulations for nuclear power and the radioactive waste that is generated, I am counting on you to carry out your duty. Please advise me how the NRC is going to deal with the enforcement mandate. (**0077-1** [Feldpausch, Regina A.])

Comment: How and where will the highly radioactive waste be stored? What are the political challenges regarding storing radioactive waste? How will these challenges be addressed? (**0081-3** [Ryan, Janet])

Comment: The assessment must address the unsolved problem of long-term storage of radioactive waste from operation of the proposed nuclear reactor. These serious environmental and health costs outweigh any potential benefits of building Fermi 3. (**0083-5** [Wolfe, Janet])

Comment: Then we want to address the problem of our long term costs, and we're talking thousands, tens of thousands, millions of years of exposure to radioactives. I don't think there's a proponent of nuclear energy here today that will say both permitted and accidental releases do not happen. And they do not happen only at reactors. They happen at every step of the fuel change. Accurate accounting of all radioactive wastes, released to the air, water, soil, from the entire reactor fuel production system, is simply not available.

The nuclear fuel chain includes uranium mines and mills, chemical conversions, enrichment, and fuel fabrication plants, reactors and radioactive waste storage ponds, casks, trenches, and other dumps.

Even new reactors like Fermi 3 will release significant amounts of radioactivity directly into the environment. These would include so-called planned and permitted releases from the reactor's routine operations, as well as unplanned releases from leaks and accidents. (**0058-33** [Yascolt, Stas])

Response: *The safety and environmental effects of long-term storage of spent fuel onsite have been evaluated by the NRC and, as set forth in the Waste Confidence Rule at 10 CFR 51.23, the NRC generically determined that "if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of any reactor to dispose of the commercial high-level waste and spent fuel originating in any such reactor and generated up to that time." The impact of the uranium fuel cycle, including disposal of low-level radioactive waste and spent fuel, will be considered in Chapter 6 of the EIS. The generic impacts of the fuel cycle are codified in 10 CFR 51.51(b), Table S-3, "Table of Uranium Fuel Cycle Environmental Data." Per 10 CFR 51.51 and the guidance in Section 5.7 of NUREG-1555 (NRC 2000), the NRC staff will rely on Table S-3 as a basis for the impact of uranium fuel-cycle impacts. Health impacts associated with reactor operations will be addressed in Chapters 4 and 5 of the EIS.*

Comment: The CO2 that is produced by uranium mining, milling and further processing must be taken into account, as well as the ecological devastation to watersheds and communities where the uranium is mined and processed. (**0051-6** [Cumbow, Kay])

Response: *The impact of the uranium fuel cycle, including carbon emissions, will be considered in Chapter 6 of the EIS. The generic impacts of the fuel cycle are codified in 10 CFR 51.51(b), Table S-3, "Table of Uranium Fuel Cycle Environmental Data." Per 10 CFR 51.51 and the guidance in Section 5.7 of NUREG-1555 (NRC 2000), the NRC staff will rely on Table S-3 as a basis for the impact of uranium fuel-cycle impacts.*

Comment: And then look at where our uranium comes from. For the past decade and more, 50 percent of US nuclear fuel, the uranium that goes into it, has come from Russia. Given current headlines about Russian power politics cutting off natural gas supplies to Europe, how smart is that to rely on Russia like that? Other US uranium supplies comes from indigenous peoples lands in places like Canada and Australia, and the Navajo and Pueblo lands of the desert southwest, associated with many environmental justice violations. (**0059-77** [Kamps, Kevin])

Response: *This comment discusses the available uranium-ore supply and associated potential impact on the viability of the nuclear industry and is outside the scope of the environmental review. The comment will not be evaluated in the EIS.*

Comment: (2) When does Fermi 2's current operating license expire?

(3) How much spent fuel is stored at Fermi 2 now and how much will be stored at Fermi 2 by the expiration date of Fermi 2's license.

(4) Where will Fermi 3's spent fuel be stored if the Nevada federal government storage facility is not built in the near future?

(5) What will be the annual rate of accumulation of spent fuel from Fermi 3? (**0083-27** [Kaufman, Hedi])

Response: *The term of Fermi 2's operating license and its relationship to the proposed Fermi 3 unit will be considered in Chapter 7 of the EIS. In addition, the quantity of spent fuel stored at Fermi 2 and its relationship to the proposed Fermi 3 unit will be considered in that chapter. The impact of the uranium fuel cycle, including disposal of low-level radioactive waste and spent fuel, will be considered in Chapter 6 of the EIS. The generic impacts of the fuel cycle are codified in 10 CFR 51.51(b), Table S-3, "Table of Uranium Fuel Cycle Environmental Data." Per 10 CFR 51.51 and the guidance in Section 5.7 of NUREG-1555 (NRC 2000), the NRC staff will rely on Table S-3 as a basis for the impact of uranium fuel-cycle impacts.*

Comment: President-Elect Obama has indicated he will withdraw the Department of Energy's license application to the Nuclear Regulatory Commission to operate the Yucca Mountain, Nevada, radioactive storage facility because of its geologic unsuitability.

Last December the Department of Energy reported to Congress and President Bush a second radioactive waste disposal site will be needed if new reactors like Fermi 3 are built. (**0058-91** [Feldpausch, Larry])

Comment: My two questions: Has Michigan been chosen as one of our Great Lakes states as a site for this radioactive disposal? And secondly, where in the State would the disposal site be located, the upper peninsula or the lower peninsula? And why would the decision be made to choose one of our peninsulas? I think it's important, I think it's incumbent upon the NRC to get those two questions answered because I think that they ought to be factored in their decision making. (**0058-92** [Feldpausch, Larry])

Response: *Potential future high-level and low-level radioactive waste disposal facilities are out of the scope of the EIS, which is concerned with the potential environmental effects of construction and operation of the proposed Fermi 3 unit.*

Comment: Spent fuel being considered waste is one of the things that I have been very adamant that we're really misnaming it. It is stuff that we are wasting that shouldn't be. Fuel element that comes out of the reactor when it's being changed, still has heat energy rev of about 12,000 BTU per hour, which can last over 10 years, by using the heat available from those fuel bundles. (**0058-126** [Meyer, Richard])

Response: *This comment expresses concern that current spent fuel management practices do not take advantage of waste heat generated by the spent fuel. The comment provides no new information related to the environmental review and will not be considered further in the EIS.*

2.17 Comments Concerning Transportation

Comment: Second, the danger of the transportation of nuclear waste materials to a potential storage site is significant. If they are transported by train, one has only to think of the recent derailment of a train, the devastation of which made the national news. If derailment occurred, the location of the load of waste would endanger people living in the vicinity. (**0023-2** [Mechtenberg, Marilynn])

Response: *The environmental impacts of transportation of radioactive wastes to and from nuclear power facilities will be addressed in Chapter 6 of the EIS.*

2.18 Comments Concerning Cumulative Impacts

Comment: How many non-consequentials impacts does it take to become consequential? (**0004-9** [Carey, Corinne])

Comment: Monroe county's three power plants, two coal burning plants, and the nuclear plant Fermi 2, together account for 25% of water withdrawals from the great lakes. Fermi.3 would add to these withdrawals, all from Lake Erie.

It is anticipated that over the next 60 to 70 years global warming will lower the level of Lake Eire from three to six feet. This change must be taken into account, as the period of change overlaps, the working lifetime of the Fermi.3 plant. (**0007-1** [Newman, Kent])

Comment: In addition, thermal pollution from the two coal plants, in Monroe county, Fermi 2 and Fermi 3, added to higher average water temperatures for Western Lake Erie, together, could harm plants, and animals living in the water. (**0007-2** [Newman, Kent])

Comment: I live in a community that has been bombarded by an oil refinery, a salt mine, a city-owned waste treatment facility and a compost facility. No one can tell me that none of these facilities do not do physical, psychological and monetary harm to citizens. Coal is not clean. Nuclear energy/waste is not safe. (**0017-2** [Leonard, Dolores])

Comment: The discharges into Lake Erie and the fallout from the stacks and the accidental discharges are extremely problematic. Many scientists believe that the Great Lakes are at a tipping point. Numerous sources of intensifying stress can overwhelm the natural processes that stabilize and buffer a system from permanent change. Ecosystems can recover from many kinds of disturbances but are not infinitely resilient. (**0019-6** [Schemanski, Sally])

Comment: As a company who will make a difference, I ask you to face the cumulative, long-term, indirect, long distance and global consequences of a Fermi III and other alternatives. (**0027-1** [Askwith, Annemarie])

Comment: The Environmental Impact Statement (EIS) must address the cumulative impacts of water usage by the proposed plant and existing power plants in Monroe, Toledo, Bay Shore, and Port Clinton.

Water intake and usage analyses should include Lucas, Ottawa, and Wayne Counties as well as Monroe County. (**0028-1** [Shiffler, Nancy L.])

Comment: The cumulative impact of another fish kill source should be considered, and the impingement and entrainment data from Fermi 2 needs to be updated.

The impact on the Maumee Bay estuary should be included in the analysis. (**0028-3** [Shiffler, Nancy L.])

Comment: The COL discusses its scoring system for projecting impacts on the local and overall ecology of Lake Erie and the project vicinity. The Department believes that the COL should look at both the overall impacts and the cumulative impacts on the local level as well as basin wide. As an example, the COL indicates that the 34,000 gpm of cooling water is a tiny proportion of the whole of Lake Erie, so the impact would be small. It then states that the local potential for withdrawals is not likely to change significantly so the cumulative impacts would be small. The Department maintains that determining the significance or lack thereof, of the local impact of the proposed cooling water use by comparing it to the volume of water in the entirety of Lake Erie is inappropriate. Impacts at the local level are operating at very different scales from those happening lakewide, though certainly both can be impacted by the proposed development and operation of this plant. Furthermore, rationalizing the significance of those impacts, local or cumulative, on the basis that withdrawals are not likely to change does not adequately take into account the impact this development will have either on a local or lakewide (cumulative) scale. Therefore:

1. Have the waterbody wide effects of preparation of this plant been adequately explored? In conjunction with existing facilities using cooling water from Lake Erie in other states and Canada? (**0029-6** [Freiburger, Chris])

Comment: A new reactor at Fermi would add to the cumulative impact of such routine releases already occurring at operating atomic reactors, namely Fermi 2 and Davis-Besse, on Lake Erie's shallow, fish-rich western basin. (**0050-12** [Kamps, Kevin])

Comment: NRC should address the additional radioactivity exposures caused by discharges from the burning of coal at Monroe County's two fossil fuel plants. Radiation monitoring should be installed at those facilities. The cumulative impacts and incremental changes caused by a new reactor should be evaluated. (**0050-14** [Kamps, Kevin])

Comment: Monroe County already hosts DTE's Monroe (Coal) Power Plant, at 3,000 megawatt-electric, one of the largest in the U.S. It also hosts DTE's Fermi 2 nuclear reactor, as well as Consumers Energy's Whiting Coal Plant. Due to such facilities, many billions of gallons of water are withdrawn from Lake Erie by Monroe County each and every day an incredibly high percentage of water usage in all of Michigan and returned super-heated. Additional nuclear reactors and coal plants in northwest Ohio also contribute heat to Lake Erie's western basin. As already seen throughout the Great Lakes, such overheating could even force the shutdown of thermo-electric power plants on hot summer days, significantly impacting the reliability of the electric grid. (In fact, Fermi 3, at 1,560 megawatts-electric, would introduce significant grid instability if it ever shut down for an extended period for any reason whatsoever, thus increasing potential electricity reliability risks that could well require massive purchases of expensive replacement power.; **0050-19** [Kamps, Kevin])

Comment: Fermi III will be located near a coal firing plant, which emits sulfur dioxide, nitrous oxide, carbon dioxide and "fine particulate matter," which pose health dangers from lung disease to stroke. Does the radiation emitted from nuclear power plants interact with the emission from coal fired plants operating in close proximity to the nuclear plant? How much more dangerous are the combination of releases than would be if the emissions did not interact? (**0055-3** [Guthrie, Patricia])

Comment: And I wish that the Environmental Impact Statement would include the following considerations, which when I reviewed it [Environmental Report], it did not.

One is the projection of climate change, where they predict that the levels of Lake Erie could drop from 3 to 6 feet. Considering that Maumee Bay, which would be impacted by this plant, whose average was up to 5 feet, western Lake Erie is 24 feet; 3 to 6 feet is very considerable. So please look at climate change as a factor in your consideration for Fermi 3. (**0058-46** [Bihn, Sandy])

Comment: DTE's coal fired power plant, right next door to this, is the fourth largest power plant in North America. If this permit is to be granted, that plant uses 1.9 billion gallons of water a day, it kills millions of fish every day. Hundreds of thousands are impinged, millions are entrained. There should be a cooling tower and there should be mercury reductions at the coal fired power plant as part of the mitigation considerations. (**0058-49** [Bihn, Sandy])

Comment: Also, the environmental impact should consider the impact on sediments and water quality in the basin both from the additional existing plants, and then what would happen with the addition of Fermi 3. (**0058-50** [Bihn, Sandy])

Comment: There is open dumping, over 500,000, up to 800,000 cubic yards a year from the Toledo shipping channel, that go right out in the waters here that you can see here in Western Lake Erie, that would be impacted by the Fermi 3. The turbidity from those waters should be considered as part of the Environmental Impact Statement of the waters they're drawing in. (**0058-51** [Bihn, Sandy])

Comment: Also, the amount of shoreline that doesn't freeze, as someone said, from the Bruce power plant. I can tell you that looking last night -- I was driving home from a meeting -- I can see five power plants today from the shoreline on Bay Shore Road and Oregon, Ohio. You can actually see Bay Shore Power Plant, you can see Consumers Power Plant, you can see DTE, and you can see the smoke from Davis Besse, and you can see Fermi 3. I mean these plants

within a mile radius. What is the saturation level of having too many power plants in our area? (**0058-55** [Bihn, Sandy])

Comment: If it is to be built then there ought to be mitigation at the Monroe power plant. (**0058-58** [Bihn, Sandy])

Comment: The plants we have we want to ensure that they comply with the law, and that they operate well. Those plants include Fermi 2, but it also includes the fossil plants, including Monroe's large facility just upriver, or just up the Lake from there. Those plants are currently being refitted. They are being complied with the environmental laws that have been passed, and we are doing everything possible to allow those plants to be operated in a cleaner and less toxic way. Those are environmental activities. There's a lot of money involved with that, of course, and that's a short term issue. (**0059-35** [May, Ron])

Comment: Fermi 3 will be located close to a coal firing plant which emits particulates that are very dangerous to our health. Actually scientists contend that people are exposed to higher radiation doses living near a coal fire plant than living near a nuclear power plant. What studies have been done on the interaction of radiation emitted from nuclear power plants with that produced by coal fired plants? Is it true that radiation bonds with particulates from the coal fired plants which are then ingested by humans and animals causing damage to our health? Wouldn't this kind of information be pertinent for the environmental analysis for Fermi 3? (**0059-42** [Mumaw, Joan])

Comment: The cumulative impact of fish kills from the five existing power plants and the impacts of adding Fermi 3 should be assessed. There needs to be a determination of the cumulative impacts of the fish kills at the existing five operating power plants in the far Western Basin of Lake Erie and Maumee Bay and then a determination of how many more fish Fermi 3 would kill and what the impacts on the fishery and aquatic life would be.

The Environmental Impact analysis should likewise determine the impact to the ecosystem from heating the billions of gallons at the existing operating five power plants. (**0082-13** [Bihn, Sandy])

Comment: The Environmental Impact should look at mitigation if this permit is to be allowed at the DTE Monroe's Coal Fired Power Plant, the 4th largest power plant in the U.S. Water use, thermal impacts, fish kills and mercury and other emissions to at the nearby Monroe coal fired power plant should be mitigated as part of this permit to reduce the 1.9 billion gallons of day of water used by DTE at this plant. Mitigation should require installing a cooling tower and mercury pollution control equipment at the Monroe plant if Fermi 3 is to get a permit. (**0082-15** [Bihn, Sandy])

Comment: The environmental impact statement should also assess the impact on sediments and water quality by adding a 6th power plant to the existing three coal fired power plants and two nuclear power plants in the Western Basin of Lake Erie. Sediments and water quality in the areas of the existing coal fired power plants and nuclear plants should be assessed for radiation, mercury and other pollutants and then the estimated additional impacts from the proposed Fermi 3 to the sediments and the water should be added. What percentage of water in Maumee Bay is currently used by the existing power plants and how much more would be used by Fermi 3? (Assess the % with the climate change estimated reductions of 3' to 6; **0082-17** [Bihn, Sandy])

Comment: The impact on keeping the shoreline from freezing and mixing zones caused by thermal impacts should be assessed. Also, the extent and overlapping of the mixing zones at existing power plants from thermal impacts and the proposed Fermi 3 should be mapped and reviewed. This assessment should include the amount of shoreline that is kept from freezing from existing power plants and the additional amount. Mitigation should be required for additional impacts. (**0082-24** [Bihn, Sandy])

Comment: Fermi III will be located close to a coal firing plant which emits particulates that are very dangerous to our health. Actually, scientists contend that people are exposed to higher radiation doses living near a coal-fired plant than living near a nuclear power plant. What studies have been done on the interaction of radiation emitted from nuclear power plants with that produced by coal-fired plants. Is it true that the radiation bonds with particulates from the coal-fired plant which are then ingested by humans and animals causing damage to our health? What research has been done in Monroe County on the possible impact of radioactive releases into the air from Fermi II which is close to a coal firing plant? Wouldn't this information be pertinent for the environmental analysis for Fermi III? (**0083-9** [Mumaw, Joan])

Response: *The cumulative impacts associated with the construction and operation of the proposed Fermi 3 nuclear plant will be evaluated, and the results of this analysis will be presented in Chapter 7 of the EIS.*

2.19 Comments Concerning the Need for Power

Comment: From an energy perspective, the proposed new plant would help assure that the energy needs of our region will be met for decades to come - and economic growth clearly cannot be sustained unless an adequate, reasonable energy supply is available. (**0010-3** [Mahoney, Charlie])

Comment: But the bottom line overall is, we're looking at all choices, and I think we need to. It's a diverse portfolio that we need, and Fermi 3 may just be the opportunity to retire some of those aged fossil plants that we all know are in our system. (**0059-39** [May, Ron])

Comment: From an energy perspective, the proposed new plant would help assure that the energy needs of our region will be met for decades to come - and economic growth clearly cannot be sustained unless an adequate, reasonable energy supply is available. (**0083-19** [Pitoniak, Gregory])

Comment: A recent article in the Wall street Journal reported that electricity usage from a number of large utilities across the country has been slowly dropping. Plans made by utilities such as DTE that were based on the assumption of a 1 - 2% annual increase in usage are now out of date. This is especially true in Michigan where population loss, manufacturing cutbacks, and energy efficiency measures have significantly reduced demand. This begs the question - Do We Need a New Nuclear Facility in Michigan?? (**0053-1** [Nordness, Dorothy])

Comment: It is estimated by the year 2030, the average U.S. household will consume about 11 percent more electricity than it does today, due in large measure to the advent of digital technology, according to the Nuclear Energy Institute. (**0058-13** [Mentel, Floreine])

Comment: We appreciate Detroit Edison's taking -- taking a proactive approach of looking at the energy needs of the citizens of our states. From a senior citizen perspective, certainly

access to reliable and affordable energy is crucial to their well-being. And while we have a lot of issues and population changes and so forth, one thing that's often overlooked is that the senior population in this State is going to grow tremendously. This year alone, census projects that the growth rate is 118 more seniors per day in the State of Michigan. Again, energy is essential to their well-being.

One of the great success stories in Michigan is their effort to rebalance assistance to those who need long term care, providing people who are formerly warehoused in nursing homes, the ability to live with assistance in community based settings, and we're at the forefront of that.

Electricity and technology is also at the forefront of that. Sixty-four percent of every person that we serve in their home is opposed to the nursing home, depends on technology and electrical devices to provide them monitoring that assures their safety, and the comfort and support of their family members who care for them, much more than anyone else. (**0058-135** [McGuire, Jim])

Comment: And they have a vision of where you need to be in the future, because once our economic problems get by us in this country, there's going to be a great need for power again. And if you don't have it, you're not going to be able to have the success down the road that you did 20, 30 years ago. So if you want to have success in the future, I think these people are a good partner. (**0058-138** [Keith, Fred])

Comment: So I'm wondering why we're heading in that direction when it doesn't seem that we need to, seeing as how, at this point in time, and in the foreseeable future, our energy needs are not rising. If we were to increase to our 10 percent level, that would be an increase in capacity of 1 percent a year, which is above what we are considering what will be necessary by 2015. So I'm just wondering, why is this on the books? (**0058-42** [Simpson, Robert])

Comment: This plant is being viewed for the long haul. This is a plant that will serve this State for 60 to 80 years. It's one that will provide not only long-term good employment, but it will also provide the power that we will need for a very long time. And it's considered baseload plant activity in our company, and therefore we are looking for all of the options, the ones that will fulfill the options associated with a very long term need for our State. (**0058-5** [May, Ron])

Comment: Another component of that energy legislation was in fact a certificate of need process. A review would be conducted by the Michigan Public Service Commission any time a utility would propose to build a baseload power plant. Due to our review, that's been undergoing for several years, including a capacity need for them, study conducted in 2005/2006, and the Michigan 21st Century Energy Plan released in 2007, the State of Michigan recognizes the possible need for new baseload power plants at some point in the foreseeable future. (**0058-65** [White, Greg])

Comment: The need for power from the plant is also far from certain. (**0058-84** [Newnan, Hal])

Comment: There is no convincing evidence that the demand for electricity will grow fast enough in our State to justify the building of this facility. I note that DTE's admission to the NRC on the need for power chapter is largely based on the analysis of the experts at the Michigan Public Service Commission. However, the projections of the Commission were produced over two years ago when the health of the State's economy afforded a far different view of the need for energy than is now the case.

While in mid year 2006, the Public Service Commission estimated that the demand for electricity was only one-and-a-half percent year growth path for several years into the future, that rate has been cut back by several factors -- the loss of population, the mounting unemployment, the shutting of factories, and the foreclosure of thousands of homes that remained unoccupied, among others. Indeed the annual energy outlook of the US Energy Information Agency issued in mid December 2008, just a month ago, for the 2007/2030 period, lowers the national growth rate in electricity used to 1 percent a year. If that's the average for the US, or State's rate is probably close to zero.

Another factor, besides the plummeting economy that should push down the demand for electricity, is the requirement citing by Governor Granholm in mid 2008, which directs the utilities to produce efficiently -- to produce electricity, I'm sorry, from non-sustainable sources. In mid 2008 Governor Granholm signing no bills that require electric utility to establish energy efficiency programs which would obviously cut back on the demand for energy, geared to reducing the consumption of electricity by 1 percent a year.

And on the renewables part, the new law directs the -- mandates the utilities that 10 percent of the electricity produced will come from renewable sources, as I said earlier, and that again will result in lower demand from nuclear and coal sources... we are puzzled by the fact that DTE in recent submissions to the Public Service Commission has downgraded the percent increase, the annual increase in expected demand for electricity. They have done that. However, in their -- as I said earlier, in their need for power chapter they are still relying on a much higher estimate that was put forth, or calculated a couple of years ago. (**0058-90** [Fischer, Lydia])

Comment: While I believe in conservation I also believe in planning ahead. Indeed, wind and water power in the future may be a factor. But realistically we need to plan to develop significant power capabilities to give us a positive economic growth for the future. (**0058-95** [Worrell, Mark])

Comment: There must be some independent evaluation of the economic data that DTE Energy has submitted about the need for future energy in the State of Michigan. During the process when the 21st Century Energy Plan was under development, under the sponsorship of the Michigan Public Service Commission, I acted as a volunteer in the discussions that took place over a period of two years. And one of the factors that we spent a good deal of time on was: what was the basis for the projections that were being made about the future need for electricity in the State of Michigan? And after a great deal of probing and asking for backup data and asking for sources of the information that were being used in that process, we were finally told, well, it all came from the utilities.

Well, we had heard the utilities testify in public hearings earlier that you can't get too much energy, too much electricity, that if you don't need it in Michigan you can always sell it. So I think that an independent evaluation of these projections of DTE Energy of what is needed for the State is a very important part of that scoping process. (**0058-97** [Holden, Anna])

Comment: Why am I so interested in Fermi? Because it happens to be a subsidiary of DTE Energy, and considering the possible construction of a new nuclear power plant on Fermi 2 site in Newport. Considering a new power plant now, Detroit Edison is acting in the best interest of our customers by making sure it is prepared to meet the State's future energy needs. It is estimated by the year 2030 the average US household will consume about 11 percent more electricity than it does today, due in large measure to the advent of digital technology, according to the Nuclear Energy Institute. (**0059-5** [Mentel, Floreine])

Comment: I had a write-up about the needs assessment that was presented in the report. And I will say that the needs assessment there is based upon business as usual. What it says is that Michigan needs more electricity because the needs are growing at about 1.2 percent annually. The entire basis for that is one report provided to the Governor which had three numbers in it; the growth rate in Southeast Michigan, the rest of the Lower Peninsula, and the UP, all of which were about 1 percent per year. There was no justification, no basis in fact, no evaluation of uncertainty, no sensitivity analysis given for any of those numbers whatsoever.

So far as I can tell the entire basis was one graphic which showed the utilization increasing historically over about a 10 year period, and then that was extrapolated into the future. That historic growth was during a time of population growth in Michigan. Those who know about what's happening to the population in Michigan suspect, with good reason, that that's unlikely to proceed in the future. The entire forecast there about the needs assessment was based upon unsubstantiated numbers from three unnamed utility companies -- I suspect one of them was DTE --and that number was used to extrapolate a straight line growth in utilization into the future. Business as usual is not the answer for Michigan today. (**0059-56** [Wolfe, Robert])

Response: *In Chapter 8 of the EIS, the NRC staff will review the need for power analysis submitted by Detroit Edison. In Chapter 9 of the EIS, the NRC staff will evaluate all reasonable alternatives to the proposed plant that could provide over 1500 MWe of baseload power to the Detroit Edison service area.*

Comment: Detroit Edison specifically has a responsibility to provide power to all of the citizens within Southeast Michigan, and that responsibility comes by way of a franchise governed by a law. So, if you have a responsibility, a company like ours would take that pretty seriously, number one. And number two is, there are penalties by which we would suffer if we didn't provide that energy. (**0059-34** [May, Ron])

Response: *The comment relates to Detroit Edison's statutory obligations to provide energy to citizens in southeast Michigan. It provides no new information, and, therefore, will not be considered further.*

2.20 Comments Concerning Alternatives – Energy

Comment: The St. Clair and Detroit rivers currents are strong and could rotate many paddle wheels/generators. How many would be required to generate the same power as Fermi 3? (**0002-2** [Schwartz, R.])

Comment: The output of Fermi.3 has been compared against, all solar power, or all wind power, or all geothermal power. Each of these renewable options, failed to perform as well as Fermi.3. A combination of some solar, some wind, and some geothermal power, should compare better with Fermi.3, than each renewable source alone. Conservation of electricity, was not considered. A significant conservation effort, would make it much more likely, a mixed system of renewable sources, could take the place of Fermi.3, make Fermi.3 unnecessary. (**0007-3** [Newman, Kent])

Comment: Investment: the enormous financial investment in another nuclear power plant is not justified, when the energy needs can be addressed first and foremost by focusing on energy efficiency and conservation. The best bargain for the dollar in energy is conservation and efficiency. Investment in high-cost energy sources such as nuclear power must be the very last

resort. Any application for a new nuclear plant must be considered in light of the applicant's investment in the alternatives: beginning with efficiency and conservation and then consideration of the mix of alternative renewable energy options. Investment in multiple sources of renewables, not solely one or the other, is responsible. Diversity of energy sources allows for flexibility. Investment in a nuclear power plant is a poor environmental investment: there are limited financial resources, public or private. What is invested in a nuclear plant cannot be invested in wind, solar, geothermal, efficiency, conservation, etc. The cost of nuclear is akin to putting too many eggs in one basket: it is foolish and too risky for us all, ratepayers and shareholders alike. (**0016-4** [Rivera, Gloria])

Comment: The comparison to renewable sources should be based on a mixture of renewables and conservation rather than comparing nuclear to one alternate source at a time.

There is no need to saddle ratepayers and taxpayers with the cost of this plant when less expensive and more environmentally sensitive alternatives are available. (**0028-4** [Shiffler, Nancy L.])

Comment: We don't need more nuclear power, we need more sensible policies. Wind and solar energies offer clean renewable energy. (**0031-7** [Rysztak, Robert])

Comment: It would be much better to invest in solar and wind energy which in the long run would be cheaper and safer. (**0034-4** [Nett, Ann C.])

Comment: We cannot use nuclear energy as a substitute for coal. We need to turn to more natural methods such as solar, wind and thermal forms of energy. We also need to greatly reduce our energy usage thereby reducing gases that cause global-warming.

We need to revitalize Michigan's economy not with a plan to return to the past but go into the future - we need a green public works project to convert unused and underused factories to produce energy efficient transportation, mass transit vehicles, solar panels, windmills. We need to rebuild health infrastructures for safe drinking water and affordable housing. We need to organize and support local organic farming and a return to local materials for building. A greener life will be a better life for all. (**0035-2** [Vitale, Fred])

Comment: The Environmental Report's discussion of alternatives assumes only a direct matchup between renewable energy sources and nuclear; that is, the comparisons in the ER are solely between nuclear and wind, solely between nuclear and solar, and the like, instead of presuming that a mix of solar-passive and solar-photovoltaic, wind, conservation, and other alternatives will be deployed through thousands of market decisions. This to me is a "strawman" argument. In my view, this comparison must be nuclear versus a mix of renewables and conservation, as the state, at least by Governor Granholm's declarations in last week's Michigan State of the State address, is moving quickly towards that actual scenario. Detroit Edison makes no such comparison here. (**0038-1** [D'Amour, James Carl])

Comment: Citizens of the state will benefit greatly from a program of combined reduction of use of energy, and implementation of renewable energy sources, such as wind, solar and use of geothermal energy. Surely DTE can create projects that will contribute to its bottom line that include green energy sources, and so become a producer of energy that will result in a lowered ecological impact overall. (**0039-4** [Mitchell, Rita])

Comment: Please, let's move forward with clean energy that does not deplete our land and water. Let's make Michigan a leader in use of green energy. (**0039-7** [Mitchell, Rita])

Comment: Investing in strong energy efficiency programs and alternative energy is what we need to save the planet, including ourselves. (**0047-7** [Bettega, Gayle])

Comment: The proponent should be required to conduct a detailed analysis of the potential for liberating or producing the same amount of energy benefits as this reactor would produce, through alternative investments in energy efficiency and alternative energy sources, including wind (both onshore and offshore), co-generation, geothermal energy, solar, etc. (**0048-9** [Edwards, Gordon])

Comment: Our organizations call upon NRC to undertake a careful review of the energy efficiency and renewable energy potential available in DTE's service area, and to find that they are the preferred alternative to Fermi 3. (**0050-25** [Kamps, Kevin])

Comment: First of all, you can take the coal plants that are just over the horizon here, and see that we're adding onto those plants environmental equipment that we think is not only essential for our environment, but it does a great deal for employment, it does a lot of other important things for our community, but most of all it cleans our air. And those projects, of course, I'm involved with and lead that effort. But that is current and it's going on as we speak.

Just behind that we're building, and will be building, windmills, and other renewable sources. There's legislation that we not only think was wise, but also really endorsed that has provided this State the opportunity to take up to 10 percent of our load and turn it into sustainable energy. And we think that that's really important. And that is in front of this plant. Those issues that come about in terms of our existing plants and those that are associated with renewable energy and efficiency are all in front of this plant. (**0058-4** [May, Ron])

Comment: The coal plants that we have, they won't last forever. We may not want them to last forever if we're looking at CO2 and other issues. So what are the alternatives? Well, let's build out those windmills, let's build out those efficiencies that we can, and do it in a way that really provides a real advantage to us short term. (**0058-6** [May, Ron])

Comment: The other thing about this is that it takes a long time to get a nuclear power plant up and running. In that time we could be using energy efficiency, we could be using alternative energy, such as wind and solar, and they could be up and running. No terrorist is going to go after a wind turbine. So, there's a lot of reasons.

Energy efficiency alone could save 50 to 75 percent of our electricity bills, and that's according to Amory Lovins, from Rocky Mountain Institute in Colorado. (**0058-25** [Cumbow, Kay])

Comment: And I kindly ask the company to invest this billion into renewable, clean sources of energy like wind, solar, geothermal, waves and tides of our beautiful Great Lakes that are so abundant in waves, tides, wind and solar. (**0058-31** [Pfeiffer, Jelica B.])

Comment: What I'm here for is to talk about a fight that we've had for the last two-and-a-half years here in Michigan to get some renewable energy on our legal system into law, and we did. It wasn't much of a bill; it was only a 10 percent, which was probably one of the weakest bills of the 25 or `6 states that have gotten mandates on their books. But we finally got something. Now it looks like to me, with all the -- I want to say more energy plans that are coming into sight now,

and coal plants, radiation plants, that we're undermining the intent of our whole trust in the State of Michigan, which was to go to cleaner sources of energy. Instead, it seems to me that everyone is backpedaling. We have a lot of different ways to reach that 10 percent, but if we go ahead with other sources of fossil fuel type energy, we undermine the very intent of the law as we have passed it. (**0058-41** [Simpson, Robert])

Comment: My statement today is in fact in support of the continuation of the combined operating license review process that is the subject of this meeting. Within the last few years the State of Michigan has put a great deal of focus on its energy future. And in fact, as referenced by previous speakers, has recently passed comprehensive energy legislation, intended to provide a framework for moving Michigan forward on its energy policy. Now, this framework does in fact include an aggressive energy efficiency program, a renewable portfolio standard, which is a mandate to build out to 10 percent of its energy supply through renewable energy, which perhaps doesn't sound like a lot when compared to maybe 30 percent from the state of Maine. But when you put it into context, a 10 percent build out in Michigan would make Michigan the third largest developer of renewable energy in the country. So you need to put those kinds of numbers into proper context. (**0058-64** [White, Greg])

Comment: As I listen to the comments of the people who support DTE, especially the Economic Development folks, Chamber of Commerce people, I wonder why they aren't pushing DTE to deploy wind and solar now, creating jobs now, instead of advocating for a long, drawn out process, a long drawn out process of necessity that will take years to result in the construction of a nuclear power plant. A process that will begin in earnest in 2013, have peak jobs at 2015, `16, or `17. If we have any economic catastrophe in this region we need to deal with it sooner rather than later. (**0058-115** [Lodge, Terry])

Comment: I don't think windmills have much of a payroll, so I'm not very fond of those. And they kind of are an eyesore in my sight. Driving across Southern Minnesota they appeared in groups of three or six. I don't know if that's significance, but I think it had to do with some kind of a government program that allowed a certain amount of money. (**0058-128** [Meyer, Richard])

Comment: The only thing I can say about the windmill is it's a great thing, and it's an additive to power with coal and nuclear. But the days that the wind don't blow, they don't work. You still have to put that power out there somehow. And we all kind of take power for granted. You know, we're used to getting up in the morning and turning on a light switch and the light comes on. What do we do some day when we turn that light switch on and the light comes on about half? You know, these are things that we need to think about. (**0058-139** [Keith, Fred])

Comment: Unfortunately, electricity is a commodity that must be used as it is produced for efficiency and economic reasons. Although wind and solar power may be used as supplements, it is necessary that we have a consistent and reliable source of baseload power. The sun doesn't always shine and the wind doesn't always blow. Numerous suppliers have built power plants using natural gas as a fuel source, but now it's been recognized as being too costly to operate these plants due to the fluctuations in the supply and price of natural gas. Using natural gas as fuel source for power has succeeded in driving up the cost of home heating and causing fuel shortages. (**0058-145** [Sweat, Ron])

Comment: Instead of sinking money into the nightmare problems of the nuclear industry, we should be investing in safe, renewable energies that will make our country safe, energy dependable, and strengthen the economy. This point should make sense to anyone. Even to

those who may dispute my points on health issues and the essence of the atom, et cetera. (**0059-20** [Barnes, Kathryn]; **0083-34** [Barnes, Kathryn])

Comment: Numerous power suppliers have built power plants using natural gas as a fuel source, but now it has become too costly to operate these plants because of the fluctuations in the price and supply of natural gas. Use of natural gas as fuel for producing electricity has driven up the cost of home heating and created shortages in the gas supply. Electricity, unfortunately, is a commodity that must be used as it is produced for efficiency as well as economic reasons. Although wind and solar power may be used as a supplemental source, it is necessary that a consistent and reliable source of power be maintained. The sun isn't always shining here in Michigan, and the wind isn't always blowing. (**0059-31** [Sweat, Ron]; **0082-6** [Sweat, Ron])

Comment: We were supportive and really provided a lot of energy behind the new legislation that occurred last fall, that obligates this State and our company specifically, to renewable energy. So those of us that are thinking about renewable being a choice against a Fermi plant, that isn't the choice. The choice is, we will do both. Whether we do a Fermi plant long term or not hasn't been decided. But what has been decided is that we will build windmills, we will look at solar, and those issues are being planned, and these are responsibilities I have as well, in the short term, starting this year.

So we're not looking at Fermi as a replacement for renewables. Actually we're going to build out many hundreds of windmills, and the obligation is to find efficiency and windmills is a shorter term, and really an environmentally sound alternative, to the loads and things that we have an obligation to serve for this community.

So that isn't a trade off. That's a given. The trade off then is the longer term power source. As previously stated, there are opportunities over the course of the next several years to see how those renewable sources work. If there are opportunities to build out even more after that we will do that. But the point is, when the wind doesn't blow and the cloud cover is like today, we will need baseload plants.

And so the next question is, will we have a baseload plant that will contribute to additional CO2, or will we have a baseload plant that will contribute to more fossil fuel burning, or will we have a base loaded plant that would be an alternative to that. And so we, I think, are obligated to take a look at nuclear power. And that obligation is around the choice that says, if we can make it effective, both in terms of cost and in terms of safe operation, which we believe we can, that those choices then would be over the longer term. (**0059-36** [May, Ron])

Comment: Real solutions for the climate crisis include safe and clean energy efficiency, and renewable electricity sources, such as wind and solar power. These have been neglected for decades and urgently deserve more support than dirty and dangerous nuclear power.

And in regards to jobs, the Blue/Green alliance, which is an alliance of the Sierra Club and the US Steelworkers Union, estimates that 35 to 65,000 permanent jobs are obtainable in Michigan via wind power, solar, geothermal, biomass, wave, tidal, genuine renewable green collar jobs, this compared to the 400 to 700 jobs that Fermi 3, that were mentioned by previous speakers.

Amory Lovins at the Rocky Mountain Institute has shown that energy efficiency is 7 to times more cost effective than nuclear power at reducing greenhouse gas emissions. Fermi 3 would provide 1,550 megawatts of electricity. If you look at all the nuclear power currently in Michigan,

Fermi 2, Palisades, Cook Units 1 and 2, although one of those units at Cook is down for a year or more at this point, due to a turbine accident. If you add up all the nuclear power currently in Michigan, 4,000 megawatts of electricity, compare that to the 16,000 megawatts of potential wind power identified in Michigan on land. Compare that to the 320,000 megawatts of wind power available to Michigan offshore in the Great Lakes, tremendous potential for wind power in this State. (**0059-74** [Kamps, Kevin])

Comment: Why isn't the $7 billion plus, being used for the development of alternative energy sources like wind, solar and geothermal? These alternative sources would supply ongoing jobs of solar-panel installation, retrofitting buildings that are leaking energy, wastewater reclamation, materials reuse and recycling and much more. (**0062-2** [Henige, Margaret Ann])

Comment: What I am asking from your office is to know whether their are any plans to explore other alternative, renewable ways to acquiring energy in the area. With Monroe being located right along the Lake Erie cost line I was wondering if there has been any attempts to start up a wind farm. The maintenance of such a facility as well as retrofitting buildings that are leaking energy offer the opportunity for job growth and ongoing employment. (**0064-2** [Davis, Gary])

Comment: In this time in our history, when we should be looking for positive ways to effect climate change, as well as helping the world economy wouldn't renewable energy sources be the answer? We should be investing in the energy sources that have much lower lead time than nuclear power. The renewable energy sources of wind, solar and gas also provide ongoing jobs for solar-panel installation, retrofitting building that are leaking energy, wastewater reclamation, materials reuse, recycling and technology advances. All of the mentioned are not a part of the nuclear energy solution. (**0066-2** [Tinnirello, Nicole])

Comment: I believe our country needs to be investing in renewable resources. I ask that this commission review alternative energy resources and look forward to your response. (**0066-4** [Tinnirello, Nicole])

Comment: Governor Granholm announced just this week that Wind Turbines were to be built in Monroe. This is a much safer and cleaner way to make electricity. Let's keep Monroe safe and clean. (**0070-4** [Karas, Josephine])

Response: *In Chapter 9 of the EIS, the NRC staff will evaluate all reasonable alternatives to nuclear power that could provide over 1500 MWe of baseload power to the Detroit Edison service area. The analysis will evaluate all proven renewable energy alternative technologies, both singly and in combination, for their ability and feasibility in meeting the stated purpose and need of the proposed action. The analysis will also extend to an evaluation of actions not involving new power generation facilities such as energy conservation, energy efficiency, and demand-side management programs.*

Comment: As a company of power, I ask you to actively support energy production which prevents pollution of any part of the environment and allow no build-up of radioactive, toxic or other hazardous substances. (**0027-2** [Askwith, Annemarie])

Response: *NRC does not actively support any form of electric power generation. NRC's mission is the safe regulation of nuclear materials to ensure protection of the public and environment. NRC will not issue a license to construct and operate the Fermi 3 nuclear plant unless it determines the design and the proposed method of operation are safe.*

Comment: The amount of money spent on new Nuclear Power Plants would be better spent on Renewable energy which would create jobs for our suffering economy and our skilled trades which are at 45% unemployed rate. I am requesting a reply from the NRC to inform me of how these problems will be addressed. (**0030-2** [Conner, Mary V.])

Comment: Fermi 3 is not needed, and rather would displace safer, cheaper, and cleaner energy alternatives such as efficiency and wind power, that better fit Michigan's electricity and job creation needs. Michigan's economic depression requires cost-effective green job creation, affordable electricity rates to spur business development, and 21st century environmental entrepreneurship. Investment in efficiency represents the lowest hanging energy fruit, with tremendous potential for ratepayer cost savings, cost-effective climate mitigation, and widespread job creation. As reported by the National Renewable Energy Lab, Michigan has the potential to develop 16,000 megawatts of land-based wind power. In addition, MSU's Land Use Institute reported in Oct., 2008 that over 320,000 megawatts of wind power is available to the Great Lakes State off-shore; environmentally-sensitive, strategic development of even a very small fraction of that huge potential could supply Michigan's electricity needs for the foreseeable future, at more affordable rates than Fermi 3, while more cost-effectively creating much larger numbers of jobs. (**0050-24** [Kamps, Kevin])

Comment: And a power is needed, it would be more environmentally safe and cost effective for society, that is, to increase available power through energy efficiency measures and renewable energy installations which provide many, many, many, many more jobs, and don't have the health cost implications that a nuclear power plant or a coal power plant have.

Therefore, based on all this, building this plant is a bad idea. We would -- the Sierra Club would believe that energy efficiency is the least expensive way to increase the amount of energy we have available, and that renewable energy efficiency measures and renewable energy measures, which are indeed clean, unlike coal, and safe, unlike nuclear, should be used even before considering nuclear power plants. (**0058-85** [Newnan, Hal])

Comment: In my opinion, investment in the nuclear industry is money that could have gone to producing cheap renewable electricity like wind, solar, and geothermal power, not to mention conservation and efficiency efforts. Besides their lower costs for construction and operation, investments in conservation, efficiency, and renewable energy provide ongoing jobs for solar-panel installation, retrofitting buildings that are leaking energy, wastewater reclamation, materials reuse and recycling and much more.

Please keep the above comments in mind as you consider DTE's application to build a new nuclear power plant in Monroe. (**0075-1** [Campana, Jean Ann])

Response: *NRC does not have authority or responsibility by law or regulation to insist that the proposed plant is the least costly alternative to provide power. The EIS will consider (in Chapter 9) the potential for alternative non-nuclear technologies to provide the electricity that could be generated by the proposed plant and the environmental impacts of those alternatives.*

Comment: Wind and solar power offer a much cleaner path to the future. The worst case scenario for nuclear power is devastating, while wind and solar accidents have no worst case scenario. (**0032-2** [Rysztak, Robert])

Response: *In Chapter 9 of the EIS, the NRC staff will evaluate the feasibility of meeting the stated purpose and need of Fermi 3, provision of over 1500 MWe of baseload power to the*

Detroit Edison service area, with alternative technologies, including renewable energy. In Chapter 5 of the EIS, the NRC staff will evaluate the environmental impacts of design basis accidents and severe accidents.

Comment: First, I can sympathize with people in Monroe and the Chamber people and business people concerned about jobs and what it does to the economy and so forth. I came to Michigan from a depressed area myself when the coal mines shut down, so I can empathize with that. But let me point out that in Time Magazine they do an issue on energy efficiency, which I think is very good, and points out that there are far more jobs in this field and in alternative energy -- this is E-Magazine with the wind power, than there would be with any construction of coal, fossil fuel or nuclear plants. So that's something to keep in mind. (**0058-103** [McArdle, Ed])

Comment: To help sell the idea of a nuclear plant to the Monroe County public it stands to reason that DTE would draw on any perceived benefits the plant would have for the local area. One of these of course being that the jobs created by the construction and operation of the plant. In the County hard hit by layoffs and plant closings related to the automobile slump, the prospect of new jobs would certainly peak public anticipation for a better economy.

At first glance it would seem that DTE's promise of thousands of temporary jobs and many hundreds of permanent operational jobs should be taken as a great positive. But closer examination reveals a much less attractive picture. Competing for the same public support and financial resources is the renewable energy industry. That's solar and wind, et cetera. In these tough economic times it must be asked, which area of energy generation will benefit us most, which would give us the biggest bang for the buck.

One study cited in Environment America report used the example of the largest currently planned -- this was 2008 -- new nuclear plant. It's the Calvert Cliffs Unit 3 in Maryland. According to one study it is expected to generate 4,000 temporary construction jobs and 360 permanent jobs. Assuming a typical cost for a nuclear plant to be about $7 billion, each of those construction jobs comes at a cost of $1.75 million, with the permanent ones at a whopping $19 million per job.

Another study, also from Environment America states, according to the Nuclear Energy Institute, a 1,000 megawatt nuclear plant creates 400 to 700 permanent jobs. Building a nuclear reactor would result in the creation of 1400 to 1800 jobs during construction. Using the best of these numbers together, this works out to be almost $2.5 million per job.

DTE's own figures is found in the environmental report, indicate an estimated maximum of 2900 construction jobs, and up to 700 permanent jobs during operation for a total of 3,600 jobs. DTE estimates the cost of construction at about $10 billion. This works out to be about $2.8 million per job. Most of which would be temporary, that is, less than the 8 years of construction. And of course who would pay for these very expensive nuclear jobs, the electrical customers of DTE of course through higher utility rates.

By contrast, another study indicates that investing $100 billion in energy efficiency and renewable energy over two years would create 2 million jobs. That works out to be only $50,000 per job. Or, in other words, that's about .05. That's 5/100th of a million dollars. Now, compare that to these previous numbers for nuclear jobs.

Still, another study says, study after study has confirmed that a renewable energy sector

produces many more jobs. Wind, like solar, produces five times as much employment as nuclear per amount invested.

And what about those Monroe County automotive job losses? Could those unemployed folks count on stepping into the nuclear construction jobs of building a Fermi 3? Not likely, unless they are experienced carpenters, iron workers, equipment operators, mechanical workers, electrical workers, boilermakers, pipefitters, sheet metal workers, insulators, painters or millwrights. Now, how many of those autoworkers would fit into one of these categories. Now, from what I've studied so far it sure sounds like the construction/operation of Fermi 3 would be a real economic boondoggle. We'd be much better off to invest our resources in energy efficiency and renewable energy resources such as solar and wind. (**0059-24** [Mantai, Frank])

Comment: The United Nations Environment Program, the International Labor Organization, the International Organization of Employers, and the International Trade Union Confederation, published a report this past September on green jobs. The report notes that more than 2.3 million green jobs have been created in recent years in the renewable energy sector. Some 4 million direct green jobs, based on improving energy efficiency, already exist in the United States. Buildings could represent a future source of many more green jobs. There are substantial green employment opportunities in retrofitting diesel busses to reduce air pollutants.

Given the economic crisis in the United States, and particularly difficult conditions in Southeast Michigan, I'm wondering about the potential jobs that would emerge from Fermi 3 in a lineup with the employment potential of Green jobs. How many jobs would be created to design, construct, and operate Fermi 3? What are the salaries and tax revenues associated with those new jobs? How many workers would come from Monroe? How many would be brought in from other areas? What is the hiring timeline? How long would the jobs last? How many jobs would be an equal investment in renewable energy create? Where would these renewable energy workers come from? And how much income would be generated? How do nuclear and renewable technologies compare regarding capital and labor intensity? Let's not leave the answers to these questions up to the company that has invested interest in moving Fermi 3 quickly through the NRC application process. (**0059-40** [Henige, Ann]; **0083-10** [Henige, Ann])

Comment: The report also gives some assessment of alternative energy sources and conservation. These are extremely important. These are actually where the jobs are going to be. One thing I would like to ask the people, and this is a rhetorical question because you can't answer it. But people who said, Look what Fermi 2 did for our jobs. It gave me my job. A lot of plumbers got jobs, a lot of people got jobs in construction. But what you never heard from was all of the people who would have gotten jobs if we had had an alternative energy construction source. There would have been many more jobs if we would have been building alternative energy sources. That is well documented by the facts. Studies after study have shown that the same investment made to build the same infrastructure for generating electricity, yields many more local, stable, real important jobs, than does nuclear power if that same money is invested in alternative energy sources. So as you look around and you say, Well, gee, isn't everything okay because look where we got our jobs in the past? You could have had more jobs, you could have had more secure jobs, they would have grown in the future, (**0059-57** [Wolfe, Robert])

Response: *In Chapters 4 and 5 of the EIS, the NRC staff will evaluate the socioeconomic impacts of construction and operation, respectively, of the proposed action. Consideration will be given to the availability of various job skills in the region rather than assuming all skills are available in the local workforce. In Chapter 9 of the EIS, the NRC staff will evaluate all reasonable alternatives to nuclear power that could provide over 1500 MWe of baseload power*

to the Detroit Edison service area. The analysis will evaluate all proven renewable energy alternative technologies, both singly and in combination, for their ability and feasibility in meeting the stated purpose and need of the proposed action. The analysis will also extend to an evaluation of actions not involving new power generation facilities such as energy conservation, energy efficiency, and demand-side management programs.

Comment: But instead of dwelling on the limitations of nuclear power, let's focus on alternative ways to meet our electricity needs. The Fermi 3 Combined License Application Environmental Report, discusses wind and solar alternatives in chapter 9, and discusses the projected growth of electricity demand in chapter 8. Both chapters are incomplete and inadequate in their present form and reach the wrong conclusion. The report must comprehensively evaluate an electricity future that combines conservation, energy efficiency, wind turbines, solar technology, power storage capacity, and transmission grid infrastructure.

Chapter 9 dismisses wind and solar technologies as unsuitable for baseload generation because they are intermittent. But, do we need to increase the baseload or do we need to increase the peak generation to meet the peak loads that happen with summer air conditioning? The report fails to consider the natural correspondence between peak solar-electricity generation and peak air conditioning demand. Solar electricity producing in Michigan would be highest exactly when it is needed most during the summer months. The report does not compare the dollar cost of short term storage capacity and transmission grid infrastructure for wind and solar generated electricity, to the costs associated with a Fermi nuclear power plant. Nor does the report compare the environmental and health costs of the proposed Fermi nuclear power plant to those of wind turbines, electricity storage, and transmission grid improvements.

The report claims that many acres would be required for a solar electricity system, acres that would be lost to other uses. The report does not consider the possibility that solar panels could instead be installed on roofs of houses and other buildings, with little loss of land to other uses. Wind and solar technologies could meet the energy needs of Southeast Michigan and would provide a much more cost effective solution than would the untested technology of Fermi 3.

Where will the funds come from for building our new energy infrastructure? These funds will come from future payments by utility customers. The very funds that DTE is proposing to invest in the Fermi 3 nuclear power plant could instead be invested in distributed solar panels connected to the grid, and in wind turbine farms. The report also dismisses solar generation because not much of it has been installed to date in Michigan. That could change quickly if the above funds were used to finance such installations.

What motivated DTE to propose the Fermi nuclear power plant? It may not be as easy for DTE to control and profit from wind and solar electricity generation as from centralized electricity generation. Hence, DTE as a corporation has less incentive to invest in these potentially realistic alternatives. However, DTE customers have a strong incentive to invest in a clean, reliable and safe alternative for Michigan based on solar and wind technologies. (**0059-53** [Wolfe, Janet]; **0083-6** [Wolfe, Janet])

Response: *In Chapter 8 of the EIS, NRC will evaluate the need for power, including the need for baseload power. In Chapter 9 of the EIS, the NRC staff will evaluate all reasonable alternatives to nuclear power that can meet the stated purpose and need of providing over 1500 MWe of baseload electric power to the Detroit Edison service area. The analysis will extend to all proven renewable energy technologies, both singly and in combination. The evaluation will also extend to an evaluation of actions not involving the introduction of new*

power production facilities such as energy conservation, energy efficiency, and demand-side management programs.

Comment: Germany employs 240,000 people in the manufacture of alternative energies. We have two wind farms in the Thumb area with turbines manufactured by General Electric and John Deere. The only problem is they're manufactured in Germany and Holland. We have an empty auto factory here in Monroe with a Lake shipping port. Hopefully we'll see President-Elect Obama have a major impact on promotion of alternative energy. Hopefully we'll see windmills manufactured at that old empty plant, maybe for export to Europe. (**0059-67** [Farris, Mark])

Response: *The mission of NRC is the regulation of the civilian nuclear industry to ensure public health and safety and protection of the environment. NRC has no role in promoting any form of power generation or manufacturing. This comment provides no additional information relevant to the environmental review and will not be considered further in the EIS.*

Comment: In terms of energy independence and ending our dependence on foreign oil, only 1 to 2 percent of our electricity in the United States comes from burning oil. So this is an apples and oranges comparison. (**0059-76** [Kamps, Kevin])

Response: *The NRC staff must evaluate the Detroit Edison proposal for its ability to satisfy the stated purpose and need. Energy independence and ending our dependence on foreign oil are not within the scope of the staff's environmental review and will not be considered further in the EIS.*

2.21 Comments Concerning Alternatives—Sites

Comment: did DTE consider alternative sites in their environmental assessment? (**0058-56** [Bihn, Sandy])

Response: *Alternative sites were considered by Detroit Edison in its ER. The NRC staff will evaluate the impacts of developing a new nuclear plant at alternative sites in Chapter 9 of the EIS.*

Comment: An EIS should include an assessment of alternate sites and a no build. Consumers Power evaluated the site they have here in the Western Lake Erie watershed and instead chose Midland, Michigan. It is hard to imagine that given the shallow fishy waters of Western Lake Erie already burdened by water use from three coal fired power plants and two nuclear plants, that other locations would be a better choice for minimizing water and environmental impacts. Simply put, this is the wrong location for a power plant. These waters are already green again and limits on fish catches are in place because of dwindling quantities. These waters can simply not afford another hit of 498 million gallons a day. (**0082-25** [Bihn, Sandy])

Response: *The NRC staff will evaluate both the no-action alternative as well as impacts of developing a new nuclear plant at alternative sites in Chapter 9 of the EIS.*

2.22 Comments Concerning Benefit-Cost Balance

Comment: Let Fermi 3 be built if there are NO subsidies; that is, if those who control it pay the FULL cost of construction, insurance, decommissioning, and waste disposal. In doing so, the

public must be protected by the precautionary principle; that is, it must be assumed that the worst that could happen will happen. Payments - perhaps as bonds - must fully cover that. Residents and taxpayers must not be saddled with any of the financial or other responsibility. (**0006-1** [Richa])

Comment: Nuclear power only exists because of constant and consistent financial handouts by the taxpayer. Six of Wall Streets largest investment banks are financially smart enough to know nuclear power is not a good safe investment and too risky. They stated We believe these risks, combined with the higher capital costs and longer construction schedules of nuclear plants as compared to other generation facilities, will make lenders unwilling at present to extend long-term credit. (**0019-10** [Schemanski, Sally])

Comment: Obviously the cost of a nuclear power plant is exorbitant and difficult to imagine this investment at this time in our history when our country is in such financial straits. (**0034-3** [Nett, Ann C.])

Comment: Fermi 2 has been a dismal failure with cost overruns approaching $6 Billion. This does not make any economic sense at all for the State of Michigan taxpayers to absorb these energy costs, in addition to the new proposed plant. It is much more desirable for the State of Michigan and its SE Region to pursue alternative energy based upon Wind Turbine, Natural gas, or even state of the art scrubber technologies for existing coal fired generator plants. For the price tag of that Fermi 2 Reactor, the State of Michigan could have over 5,000 Wind Turbine generators on line, producing electricity for the power grid with zero thermal and radiation exposure, and no nuclear waste to deal with!!! (**0041-2** [Englund, Lance])

Comment: The proponents should be prevented from availing themselves of pre-emptive bailouts from the federal treasury in the form of loan guarantees. Such loan guarantees are contrary to a free market philosophy and to the level playing field approach which should prevail in any form of responsible and sustainable energy planning. For the federal taxpayers to guarantee all necessary loans without any financial accountability or oversight is to invite abuse and waste of precious capital resources. Too much reckless and irresponsible investment has already taken place in the form of sub-prime mortgages and other schemes which separate the investor from the consequences of bad investment decisions. This should not be allowed to continue. The proponent should be required to justify the investments that will be needed in terms of the willingness of the investor to stand by that investment without requiring federal assistance. (**0048-2** [Edwards, Gordon])

Comment: The proponent should be required to document what efforts have been made by the nuclear industry to persuade insurance companies in North America to remove the nuclear exclusion clause from their insurance policies for property owners. If the nuclear industry believes that these reactors are safe, and not subject to catastrophic accidents, then they should be able to convince the insurers to provide normal coverage to their customers, thereby eliminating the need for the Price Anderson Act (which was originally intended to be only a temporary measure until the industry matured). If, on the other hand, the industry is not mature enough to convince the insurers that offsite damage from reactor accidents can be covered in the normal way, then the NRC would be, in our opinion, irresponsible to allow such reactors to be built within striking distance of large metropolitan areas or beside irreplaceable bodies of water. These considerations are particularly important since the events of 9/11 which have demonstrated the enormous damage that can be done by a small band of dedicated terrorists who have no regard for their own survival. (**0048-7** [Edwards, Gordon])

Comment: Taxpayer and ratepayer subsidies for Fermi 3 represent opportunity costs lost to safer, cheaper, and cleaner alternatives such as efficiency and renewable sources of electricity. The nuclear power industry has enjoyed over half a trillion dollars in public support over the past half century. DTE's Fermi Nuclear Power Plant has already benefitted for decades from federal research and development, as well as liability insurance against major accidents. The federal 2005 Energy Policy Act provided yet another $13 billion in subsidies, tax incentives, and additional support for new reactors. The industry has already successfully lobbied for $18.5 billion for new reactor federal loan guarantees, approved in Dec. 2007, making taxpayers co-signors on financially risky nuclear construction projects. Now DTE as well as Nuclear Energy Institute lobbyists are seeking additional tens of billions of dollars in nuclear loan guarantees as part of the federal economic stimulus bill, even though Fermi 3 cannot even break ground in the next two years. At the state level, DTE has received approval to charge electric ratepayers hundreds of millions of dollars to pay off its construction debt for Fermi 2. It recently applied to the Michigan Public Service Commission for tens of millions of dollars from ratepayers to fund its application to NRC for Fermi 3. Such public funds would be much better invested in energy efficiency, which is seven to ten times more cost effective than a new atomic reactor at reducing greenhouse gas emissions, or in wind power, so plentiful in Michigan and twice as cost effective as nuclear power at carbon reductions. (**0050-23** [Kamps, Kevin])

Comment: As I live within the ten mile radius of the Fermi II plant, I have always tried to keep abreast of the issues surrounding nuclear energy in Monroe, MI where I reside. I am particularly troubled about the proposed Fermi III plant because I do not think it is economically feasible. I think it will cost too much to produce nuclear energy and we will soon learn of better, cleaner less expensive ways to produce the energy we need. (**0052-1** [Fedorowicz, Meg])

Comment: Almost every article I read mentioned the skyrocketing costs of building new nuclear power plants. Quoting from an article in Time Magazine in December or 2008 ". . . rain has fallen on the nuclear parade. It turns out that new plants would be not just extremely expensive but spectacularly expensive". According to the article, the nuclear industry has a history of 250% cost overruns.

A leading expert in power plant costs, Craig A. Severance, who is a practicing CPA has written copiously about the cost of nuclear. Quoting him: "Generation costs per kilowatt hour for new nuclear plants (not including distribution to customers) are likely to be from 25 - 30 cents/kWh."

Such high cost may destroy the very demand the plant was built to serve. High electric rates may seriously impact utility customers and make nuclear utilities' service areas noncompetitive for businesses with other regions of the U.S. which are developing lower-cost electricity. This is a situation Michigan can ill afford. High electric rates will also encourage people to be even more energy-efficient in their homes and businesses, thus reducing demand even further.

Again quoting Mr. Severance - "Given the myriad low-carbon, much-lower-cost alternatives to nuclear power available today -- such as efficiency, wind, solar thermal baseload, solar PV, geothermal, and recycled energy the burden is on the nuclear industry to provide its own detailed, public cost estimates that it is prepared to stand behind in public utility commission hearings." (**0053-5** [Nordness, Dorothy])

Comment: Who will pay, and are they willing to pay?? Pulling again from the Time Magazine article, the answer is Ratepayers would take the main hit, but Taxpayers could be on the hook for billions in loan guarantees, tax breaks, insurance benefits and direct subsidies. This is because banks and bond-rating agencies are skeptical of backing the costs. In 2007

renewables attracted $71 billion globally in private capital during 2007 while nuclear got zip -- zero. The reactors under construction around the world are all government-financed, and ratepayers and taxpayers who will ultimately bear the burden are left out of the decision loop and not given the information they need to make a rational decision. (**0053-6** [Nordness, Dorothy])

Comment: Nuclear power has taken most of federal energy research and development dollars for over 50 years. Yet no private utility would consider investing in a nuclear plant without additional taxpayer backing as in France. Further, the Price/Anderson Act burdens the taxpayers with liability for major nuclear accidents.

A group of concerned Harvard/Boston doctors created the organization Physicians for Social Responsibility (PSR). PSR spread across the country and expanded into the International Physicians for the Prevention of Nuclear War, recipient of the 1985 Nobel Peace Prize. PSR published a definitive work on nuclear power entitled "Dirty, Dangerous, and Expensive: The Truth about Nuclear Power." The full text can be obtained at www.psr.org.

In the January 12, 2009 issue of Time magazine, Michael Grunwald wrote "It turns out that new plants would not just be extremely expensive but spectacularly expensive...sky high costs and uncertain financing could sink nukes again." (**0054-4** [Drake, Gerald A.])

Comment: I am concerned about the larger financial risks associated with the new nuclear power plant in our community.

The distinguished physicist and chief scientist of Rocky Mountain Institute, Amory Lovins, and research analyst, Imran Sheikh, published a report last year entitled, The Nuclear Illusion. The authors price electricity from a new nuclear power plant at cents per kilowatt hour, and then from a wind farm at cents per kilowatt hour. Both include the cost of fuel, capital, operations, maintenance, transmission and distribution. But in addition to its 14 cents per kilowatt hour, nuclear power requires funding for disposing of radioactive waste for ensuring plants against an accident, and for decommissioning plants when they wear out. These added costs are shouldered by taxpayers.

The Price-Anderson Act guarantees utilities protection against 98 percent of nuclear accident liability. All U.S. utilities refuse to generate nuclear power until the government provided this liability limit. Lester Brown, the founder of Earth Policy Institute, and prolific author, calls the economics of nuclear power flawed. He writes: The collective cap on nuclear operator liability is $10.2 billion. This compares with an estimate by SANDIA, a national laboratory, that a worse case accident could cost $700 billion. $10.2 billion, $700 billion. Anything above the $10.2 billion would be covered by taxpayers. If utilities need this kind of protection, shouldn't taxpayers have it as well?

According to Kristin Schrader-Frechette, O'Neill Family Professor in the Department of Biological Sciences and Department of Philosophy at the University of Notre Dame, Standard and Poor's downgrades the rating of any utility that wants a nuclear plant. Forbes Magazine recently called nuclear investment the largest managerial disaster in business history, something pursued only by the blind or the biased.

The Nuclear Energy Institute reported to the U.S. Department of Energy that 100 percent loan coverage by taxpayers is essential. Wall Street refuses to invest in nuclear power because the plants are assumed to have a 50 percent default rate. The only way that Wall Street will put their

money behind these plants is if American taxpayers underwrite the risks.

Of 132 nuclear power plants built in the U.S., about one-half of the 253 originally ordered, 21 percent were permanently and prematurely closed due to reliability or cost problems. Another 20 percent have completely failed, for a year or more, at least once.

Michael Toddy writes in the June 30th, 2008 issue of the Wall Street Journal: The entire nuclear power industry is vulnerable to the safety standards of its worse performers because an accident anywhere in the world would stoke another anti-nuclear backlash among the public and investors.

Cost of the Yucca Mountain Nuclear Waste Repository was estimated to be $58 billion in 2001. In 2008, the estimate had soared to $96 billion. Because of escalating costs, the longer the construction lead time the greater the business risk that a proposed facility will exceed its estimated cost. Solar, wind, and gas have much shorter lead times than nuclear.

Investment in misguided attempts to stimulate the nuclear industry is money that could have gone to cheap, renewable electricity, like wind, solar, and geothermal, not to mention conservation and efficiency efforts. Besides their lower cost for construction and operation, investments in conservation efficiency and renewable energy provide ongoing jobs for solar panel installation, retrofitting buildings that are leaking, waste water reclamation, materials reuse, and recycling, and much more. (**0058-18** [Seubert, Nancy]; **0083-35** [Seubert, Nancy])

Comment: They are in a rush for finances. They are in a rush to get federal loan guarantees; they are in a rush to get ratepayers money. They are quite willing to spend ratepayer's money up front, during construction phase, and quite willing to spend federal taxpayer monies. But the utility is not willing to put forward the stockholder monies. So what this amounts to is public risk financially and private profit. Once they turn the key on that thing, you can bet the profit's going to go to Detroit Edison. (**0058-63** [Keegan, Michael])

Comment: The enormous financial investment in another nuclear power plant is not justified when the energy needs can be addressed first and foremost by focusing on efficiency and conservation. This isn't rocket science, it's not a secret. We all know that the best bargain for the buck in energy is conservation and efficiency.

Investment in high cost energy sources, such as nuclear power, must be the very last resort. Any application for a new nuclear plant must be considered in light of the applicant's investment in alternatives, beginning with efficiency and conservation, and then consideration of the mix of alternative energy option. Investment in multiple sources, not solely one or mega project is responsible. What is invested in nuclear power cannot be invested in wind, solar, geothermal, efficiency and conservation. The cost of nuclear energy is akin to putting too many eggs in one basket. It is foolish and too risky for us all; ratepayers, investors, and citizen taxpayers. (**0058-69** [Weber, Margaret]; **0082-35** [Weber, Margaret])

Comment: There is also financial angle to this story, and again, I am reiterating some of what previous speakers talked about. New technologies that are being proposed are not tested, and maybe no more than theories put forth by nuclear proponents who want to profit from uninformed taxpayers by convincing them to pay the bills for the new facilities.

Let me explain. Given that the risk of default on loan repayments by most new reactor projects was assessed as very high. Wall Street and investment firms have stayed away from financing

the new projects. The industry then turned to Congress, which pressured by the industry, agreed to authorize federal loan guarantees in 2005. So, if new reactors default, taxpayers will be held liable to repay the loans to the tune of many billions for each defaulted reactor.

However, this won't work for the financing of the ESBWR reactor, which is, as I understand, will not receive any of the 18.5 billion already approved by Congress in nuclear loan guarantees. DTE has yet to explain how it will finance Fermi 3 without those loan guarantees. But in the meantime the utility has applied to the Michigan Public Service Commission, to allow tens of millions of dollars to be charged on ratepayer electricity bills to cover its expenses in fighting paperwork with the NRC for the Fermi reactor proposal. (**0058-89** [Fischer, Lydia])

Comment: My understanding of the NEPA process, which was described earlier, is that there is a burden on the part of a proposal for a permit for anything affecting the environment, any possible impact on the environmental parts of air, water, people, flora, fauna, et cetera, is to look at alternative sources and make a solid case that there's no better alternative to supply whatever product it is that is being permitted.

Now, in this case I say that we should have a very rigorous examination of what are the benefits of alternative energy produced as opposed to the Fermi 3 plant. Because I think we will find out - we've certainly seen a lot of evidence to that already -- that if you compare the risk of Fermi 3 to the risk of alternative sources, which would be wind power, solar power, geothermal, and energy efficiency, conservation, that if you look very rigorously at the impact on people and their health, on public health, on the ecology, on the amount of economic opportunities that are available to people, job creation, that you will find that you cannot get the same benefits from the expanded tour that's being proposed from the taxpayer and from the ratepayers, for the Fermi 3 plant as opposed to what would be a comparable investment and alternative renewable sources.

And I agree with one of the previous speakers, that there is a great risk of undermining the development of renewable energy by going ahead with plans for a major power plant of the scope of Fermi 3. (**0058-98** [Holden, Anna])

Comment: What type of electricity generating equipment should we, the utility customers of DTE, invest in? We must consider both the costs and the benefits of the proposal before us, and alternatives to it.

Let's start with the costs. In the case of the proposed Fermi 3 nuclear power plant, the true costs include not only the very large financial costs of constructing, operating, decommissioning, and storing the radioactive waste from the plant, but also very significant safety, environmental, and health consequences. These costs should be compared to the costs of solar and wind alternatives.

What about the benefits? The benefits include not only the electricity produced, but also jobs and profits associated with the project. Nuclear power may be better for profits, but solar and wind will provide more jobs in Michigan. (**0059-47** [Wolfe, Janet])

Comment: Should we, the customers of DTE, assume the responsibility of paying for the costs of construction, operation, decommissioning, and long term storage of nuclear waste associated with the proposed Fermi 3 nuclear power plant? Can the residents and neighbors of Southeast Michigan afford to reap the environmental and health consequences of nuclear power in their backyards? We need to assess how the same funds could be instead used to develop and build

a distributed wind and solar electricity generation, storage, and grid distribution system. That could meet our electricity use needs with far less damaging environmental and health costs. We need to ask whether there are less costly ways than the proposed Fermi 3 nuclear power plant to meet the electricity needs of the people of Southeast Michigan. And we must assess who will bear the costs and who will reap the benefits. (**0059-54** [Wolfe, Janet])

Comment: There are new solutions which will work better than the failed solutions of the past. The up to date knowledge and scientific materials presented by other speakers today here about alternative energy sources, demonstrates that the best option for meeting Michigan's energy needs, will be found not with expensive, untested, job stealing environmental unsafe nuclear power. That sounds contradictory to some things that other people said. But remember, I'm the statistician who says, Compared to what, job stealing? I thought it gave us jobs. It did, but fewer jobs than we would have gotten by the alternative of alternative energy sources.

Instead Michigan's energy needs can be met with safe, proven, cost effective alternative energy technology that is available today, built by Michigan workers and maintained by Michigan workers throughout the State. Development of alterative energy sources would provide many more jobs for Michigan and provide a larger tax base and would be much less environmentally risky than would the taxpayer subsidies needed to build an untested nuclear reactor design.

Nuclear power generation required massive tax subsidies from plants that were to last built 90 years ago. Today the economic advantages of alternative energy sources makes nuclear power even less economically feasible than it was even decades ago when it failed. (**0059-59** [Wolfe, Robert])

Comment: The proponents of Fermi 3 keep talking about the future, but I don't think they can see any farther than the dollar signs in their eyes. What they think would be good for Monroe would definitely be bad for Michigan, the Country, and the world. If you look at the entire nuclear cycle, Fermi 3 will be the most expensive electricity produced which will destroy the potential for long term jobs in the State. (**0059-66** [Farris, Mark])

Comment: Decommissioning of all the nukes is nearing the end of their operational lives. There will be a financial burden on the national economy in our lifetimes. DTE doesn't really have a solution for Fermi 1 and Fermi 2 decommissioning, and that cost will be dumped on citizens. About 20 years ago the shipping port reactor was decommissioned at a cost of over $100 million. Fermi 2 is about 20 times the size of Fermi 1, and Fermi 3 is projected to be about 25 times larger than Fermi 1. It will cost billions to decommission those three nukes. We'll pay coming and going for expensive electricity. (**0059-69** [Farris, Mark])

Comment: So, regarding taxpayer loan guarantees that's been mentioned today. The only way that DTE can finance the construction of its proposed Fermi reactor is for US taxpayers to bear all the financial risks. In 2003 the Congressional Budget Office warned that over half of all new reactor projects would likely default on their loan repayments.

Wall Street and investment firms are not interested in shouldering such risks. Thus, the nuclear power industry pressured the US Congress in 2005 to authorize federal loan guarantees. Now if new reactors default, taxpayers will be held liable to repay the loans, to the tune of many billions of dollars for each defaulted reactor. However, the US Department of Energy recently decided that the General Electric Hitachi's so-called Economic Simplified Boiling Water Reactor Design proposed at Fermi 3, will not receive any of the $18.5 billion already approved by Congress in nuclear loan guarantees a year ago.

Because of this the biggest nuclear utility in the United States, Exelon of Chicago, announced last November that it would not pursue ESBWRs at its new twin reactor project in Victoria County Station, Texas. Upon announcing it's rejection of the ESBWR design, Exxon told NRC that another reactor design would enhance Exxon's ability to obtain federal loan guarantees, which are essential for financing a new nuclear development project. DTE has yet to explain how it will finance Fermi 3 absent taxpayer loan guarantees. The nuclear power industry has already enjoyed over $500 billion in public subsidies over the past 50 years. The giveaways have included $145 billion in federal research and development, tens of billions of dollars from ratepayers poured into the nuclear waste fund for irradiated nuclear fuel disposal. Hundreds of millions to billions of dollars per year in the form of insurance premiums that the nuclear power industry does not have to pay, because the federal Price-Anderson Act puts liability risks from major accidents onto the backs of US taxpayers. $125 billion in household and business payments on electricity bills to pay off nuclear utilities construction debts on the last generation of reactors. The list goes on and on.

DTE has even applied to the Michigan Public Service Commission to allow additional tens of millions of dollars to be charged on ratepayer electricity bills to cover its expenses, in filing paperwork with the US NRC for the Fermi 3 reactor proposal. After 50 years of receiving the lion's share of public support in the electricity sector, while only providing 20 percent or less of our electricity, none of our transport and none of our heating, the nuclear power industry should be required to stand on its own two feet in the marketplace. (**0059-73** [Kamps, Kevin])

Comment: My concern is the enormous cost for the Fermi 3 facility. In addition to the 14 cents per kilowatt hour price of electricity from a new nuclear power plant, the tax-payer must shoulder the cost for disposing of radioactive waste, for insuring plants against an accident, and for the decommissioning of plants. The over-all cost of Fermi III would be $7 billion, plus over-run costs. (**0062-1** [Henige, Margaret Ann])

Comment: As a concerned citizen I am worried about the building of Fermi 3 nuclear power plant and would like to address some of my concerns to your office. I am troubled by the high costs of building and operating such a plant and am wondering if other alternative means to acquire energy have been explored.

According to Amory Loving and Imran Shaikh of the Rocky Mountain Institute the cost to produce the same amount of energy produced by a wind farm, at 7 cents per kilowatt hour, is half of that to produce the same amount of energy that a nuclear power plant would, at 14 cents per kilowatt hour (The Nuclear Illusion).

The cost of building these plants is also of some concern to me. With $18.5 billion dollars in loans approved by the federal government, I was troubled to learn that out of roughly half of the 253 plants originally ordered, about 132 plants, 21 percent were permanently closed due to cost problems and another 27 percent have completely failed for a year or more at least once. These numbers are very alarming. (**0064-1** [Davis, Gary])

Comment: Much debate has been given to whether or not nuclear energy is a clean energy source. However, not much is ever discussed about the monetary value attached to the nuclear industry. In The Nuclear Illusion, Amory Lovins and Imran Sheikh priced nuclear electricity at 14 cents per kilowatt hour compared to wind power at 7 cents per hour. In addition to the 14 cents per kilowatt hour, there is the added expense of disposing of radioactive waste, for insuring

plants against an accident and decommissioning plants when they wear out. (**0066-1** [Tinnirello, Nicole])

Comment: The expense of building at this time is prohibitive in this time of recession (**0070-2** [Karas, Josephine])

Comment: Background: Public Act 286 (Oct. 6, 2008) passed after heavy lobbying by DTE Energy. The bill severely limits choice (to 10%) and allows Energy Providers (ie. DTE & CMS) to bill--via rate hikes--based on anticipated future expenses, rather than traditional rate-setting tied to current costs. Ron A. May just spoke on plan to get tax credit. He and other Execs are paid for this ("incentivized type of strategy").

Questions:

1. May Det. Edison (or DTE) begin increasing rates for these anticipated capital expenditures?

2. MPSC's investigation into Detroit Edison's A&G expenditures (Admin & General Expenses) identified extraordinary costs passed onto consumers at Nov. 2004 (see Case No. U-14666 and U-13808). Why would we expect responsible "anticipation of costs"? Det. Edison employees told me the Corp. Execs....

Note: Among DTE/MCN entities per SEC filings show Caymen Island entities (which may heed "avoid" taxes). (**0082-40** [B., M. J.])

Comment: What type of electricity generating equipment should we the utility customers of DTE invest in? We must consider both the costs and the benefits of the proposal before us and alternatives to it. Let's start with the costs. In the case of the proposed Fermi 3 nuclear power plant, the true costs include not only the very large financial costs of constructing , operating, decommissioning, and storing the radioactive waste from the plant, but also significant safety, environmental, and health consequences. These costs should be compared to the costs of solar and wind alternatives.

What about the benefits? The benefits include not only the electricity produced, but also the jobs and the profits associated with this project. Nuclear power may be better for profits, but solar and wind will provide more jobs in Michigan. (**0083-1** [Wolfe, Janet])

Comment: Should we the customers of DTE assume the responsibility of paying for the costs of construction, operation, decommissioning, and long term storage of nuclear waste associated with the proposed Fermi 3 nuclear power plant? Can the residents and neighbors of southeast Michigan afford to reap the environmental and health consequences of nuclear power in their back yards?

We need to assess how the same funds could instead be used to develop and build a distributed wind and solar electricity generation, storage, and grid distribution system that could meet our electricity use needs with far less damaging environmental and health costs.

We need to ask whether there are less costly ways than the proposed Fermi 3 nuclear power plant to meet the electricity needs of the people of southeast Michigan, and we must assess who will bear the costs and who will reap the benefits. (**0083-7** [Wolfe, Janet])

Comment: The USA is in deep recession. Many have lost their homes and jobs. Who will pay for Fermi? Will Detroit Edison pay for it all? I doubt it. Every nuclear facility that exists has been subsidized by taxpayers. The reactor of Fermi 3 is planned on being built in France. i.e. more job outsourcing. (**0083-33** [Barnes, Kathryn])

Response: *The costs and benefits of construction and operation of the proposed Fermi 3 nuclear plant will be addressed in Chapter 10 of the EIS. NRC does not have authority or responsibility by law or regulation to ensure that the proposed plant is the least costly alternative to provide energy services under any particular set of assumptions concerning future circumstances. The EIS will consider (in Chapter 9) the potential for alternative non-nuclear technologies to provide the electricity that could be generated by the proposed plant and the environmental impacts of those alternatives. NRC is not involved in establishing energy policy. Rather, it regulates the nuclear industry to protect the public health and safety and the environment within existing policy. Therefore, issues such as the potential effect of a particular nuclear power investment on the future development and implementation of alternative technologies, subsidies for nuclear power, and characterization of financial risks associated with such projects are not within the scope of the NRC environmental review and will not be considered further in the EIS. The sufficiency of decommissioning funding is also outside the scope of environmental review; however, 10 CFR 50.75 requires licensees to provide reasonable assurance that funds will be available for the decommissioning process.*

Comment: Up until a few years ago, there had been no new nuclear power reactors ordered in North America since 1978. Reactor orders on this continent dried up for many reasons.

- Reactors proved to be far more expensive than previously thought, and the costs proved notoriously difficult to control.
- Construction times were so long that the building of each nuclear reactor simply added to the energy demand for a decade or more before useful energy could be produced, often too late to respond to the demand that had been perceived 10 or 15 years earlier.
- The problem of safely guarding high-level radioactive wastes in perpetuity had not been properly appreciated or satisfactorily addressed.
- The accumulation of over 200 million tons of radioactive tailings from uranium mining operations in the USA posed what the Wall Street Journal once described as an economic and environmental time-bomb.
- The catastrophic potential of reactor accidents had not yet received the public attention that ensued from the Three Mile Island and Chernobyl reactor accidents.
- The perilous link between Atoms for Peace and Atoms for War had not yet been demonstrated with the Indian atomic bomb explosion in 1974 (brought about using peaceful nuclear technology provided by Canada and the USA).
- The enormous potential for meeting our energy needs through efficiency measures and through renewable sources of energy was not as evident as it is today.

We at CCNR believe that the Environmental Impact Statement prepared for a new reactor today should be required to address all these issues quite thoroughly and explicitly. (**0048-1** [Edwards, Gordon])

Response: *The impacts of construction and operation of the proposed Fermi 3 nuclear plant will be presented in Chapters 4 and 5 of the EIS. The impacts of accidents will be discussed in*

Chapter 5 of the EIS. The impacts of the uranium fuel cycle will be discussed in Chapter 6 of the EIS. Alternatives to the proposed action, including renewable energy sources and demand-side management, will be evaluated in Chapter 9 of the EIS. Benefit-cost balance will be discussed in Chapter 10 of the EIS.

Comment: Where do you recognize that THERE IS NO NET GAIN OF ENERGY IN NUCLEAR POWER? (**0004-8** [Carey, Corinne])

Comment: As the NRC proceeds with the environmental impact analysis for this proposed plant, I implore you to include a comprehensive analysis of the potential economic benefits it will generate for MI and our region. This is clearly an essential component to assure balance in your final conclusions on the costs and benefits of the proposed plant. (**0010-5** [Mahoney, Charlie]; **0083-21** [Pitoniak, Gregory])

Comment: Fourth point: And the reason for moratorium is very high construction expenses. I heard that it would be costing DTE $1 billion to construct this Fermi 3 nuclear reactor. (**0058-30** [Pfeiffer, Jelica B.])

Comment: I'm here to address costs, both long term and short term. With the various subsidies, it's costing about to 30 cents per kilowatt hour out the gate. This is wholesale, not retail. (**0058-32** [Yascolt, Stas])

Comment: These serious environmental and health costs outweigh any potential benefits of building Fermi 3. (**0059-52** [Wolfe, Janet])

Comment: To help sell the idea of a new nuclear plant to the Monroe County public it stands to reason that DTE would draw on any perceived benefits the plant would have for the local area - one of these being that of the jobs created by the construction and operation of the plant. In this county, hard hit by layoffs and plant closings related to the automobile slump, the prospect of lots of new jobs would certainly peek public anticipation of a better economy. At first glance it would seem that DTE's promise of thousands of temporary construction jobs and many hundreds of permanent operational jobs should be taken as a great positive. But closer examination reveals a much less attractive picture. Competing for the same public support and financial resources is the renewable energy industry (solar, wind, etc.). In these tough economic times it must be asked, Which area of energy generation will benefit us most? Which will give the most bang for the buck?

One study (see www.environmentamerica.org/reports/election-2008-reports2/election-20008reports/john-mccain-nuclear-plans) used the example of the largest currently planned (2008) new nuclear plant, the Calvert Cliffs Unit 3 in Maryland. It is expected to generate 4000 temporary construction jobs and 360 permanent jobs. Assuming a typical cost for a nuclear plant to -be $7 billion, each of those construction jobs comes at a cost of $1.75 million, with the permanent ones at a whopping $19 million per job!

Another study (see reference in previous paragraph) states: According to the Nuclear Energy Institute, a 1000 MW nuclear plant creates 400-700 permanent jobs. Building a nuclear reactor would result in the creation of 1,400 -1,800 jobs during construction. Using the best of these numbers together, this works out to be almost $2.5 million per job.

DTEs own figures (as found in Ch. 4 of the NRC environmental report), indicate an estimated maximum of 2900 construction jobs and up to 700 permanent jobs during operation, for a total

of 3,600 jobs. DTE estimates the cost of construction at $10 billion. This works out to be about $2.8 million per job, most of which would be temporary (less than 8 yrs). And who would pay for these very expensive nuclear jobs? DTE electrical customers through higher utility rates, of course.

By contrast, another study (see reference in paragraph two above) indicates that investing $100 billion in energy efficiency and renewable energy over two years would create 2 million jobs - that works out to be only $50,000 per job (or only $0.05 million per job). Still another study (see www.tarsandswatch.org, and find their Jan16, 2008 report) says: ...study after study has confirmed that a renewable energy sector produces many more jobs. Wind like solar, produces five times as much employment as nuclear per amount invested.

And what about those Monroe County automotive job losses-could those unemployed folks count on stepping into the nuclear construction jobs building a Fermi III? Not likely, unless they are experienced carpenters, iron workers, equipment operators, mechanical workers, electrical workers, boiler makers, pipe fitters, sheet metal workers, insulators, painters, or millwrights. How many would fit into one of these categories??

From what I've studied so far, it sure sounds like the construction and operation of Fermi III would be a real economic boondoggle! We'd be much better off to invest our resources in energy efficiency and renewable energy sources such as solar and wind. (**0083-36** [Mantai, Frank])

Response: *Costs and benefits of construction and operation of the proposed Fermi 3 nuclear plant will be presented in Chapter 10 of the EIS. Consideration will be given to the availability of various job skills in the region rather than assuming all skills are available in the local workforce.*

Comment: We also -- affordability remains an essential issue as well, and we understand as we transfer some of the responsibility for payments, more from corporations and financiers to citizens, the necessity to protect our most vulnerable citizens from some of the economic impact of these cost shifts. We understand that there are some programs that help the low income population to assure that they can -- affordability. And we serve as an advocate for a little bit of expansion of those, breaking the ties of assistance in the definition of the indigent who need help in purchasing needed energy, from the poverty level to a higher level of standard. That represents about 300 percent of the SSI level, which is the test that we're using more and more to really, truly, define those who have the greatest needs for the life sustaining supports and the technology needed to help people maintain their independence in this State. (**0058-136** [McGuire, Jim])

Response: *NRC's responsibility is to regulate the nuclear industry to protect the public health and safety and the environment. NRC is not involved in establishing and administering energy policy. This comment is outside the scope of the staff's environmental review and will not be considered further in the EIS.*

Comment: As a company who can lead the charge in even better energy production, I ask that you internalize the full environmental and social cost in the selling price so that consumers can identify choices that meet the highest social and environmental standards. (**0027-3** [Askwith, Annemarie])

Response: *The comment requests Detroit Edison to internalize environmental and social costs in the selling price of energy. As this is not within NRC's authority, the comment is outside the*

scope of the environmental review and will not be considered further. Costs and benefits of construction and operation of the proposed Fermi 3 nuclear plant will be presented in Chapter 10 of the EIS.

Comment: One horsepower is 746 watts. When you consider how valuable electricity is. When I was young there was farm areas where my folks came from that were just getting the benefits of the rural electrification, and what a wonderment that is. And we have people who complain about the price of electricity. When you consider a horsepower hour is costing you about 9 cents, I don't think it's too much to complain about. (**0058-130** [Meyer, Richard])

Response: *This comment provides general support for the cost of nuclear power. The comment provides no new or significant information relevant to the staff's environmental review and will not be considered further in the EIS.*

Comment: I'd just like to say in conclusion, that I am greatly opposed as a taxpayer and as a ratepayer with the proposal that the burden of paying for this Fermi 3 plant should be on our shoulders as opposed to being funded by the stockholders. It's a very profitable company, and those who have stock, I would think, probably want profits. But I think we should put these other factors above profit, and that we should not have this come out the ratepayers. (**0058-102** [Holden, Anna])

Comment: USA is in deep recession. Many have lost their homes and jobs. Who will pay for Fermi? Will Detroit Edison pay for it all? I doubt it. Every nuclear facility that exists has been subsidized by taxpayers. The reactor of Fermi 3 is planned on being built in France. That is more job outsourcing. (**0059-19** [Barnes, Kathryn])

Response: *The comments relate to the costs of power generation that are passed on to customers. NRC's responsibility is to regulate the nuclear industry to protect the public health and safety within existing policy. NRC is not involved in establishing the rates paid by customers.*

Comment: I would like to ask you to let me and the citizens of Monroe, MI know how we are going to pay for the building of another plant, how we are going to pay the high costs of producing this form of energy (**0052-3** [Fedorowicz, Meg])

Response: *The purpose of the EIS is to disclose potential environmental impacts of building and operating the proposed nuclear power plant. Neither the determination of the impact of building and operating a nuclear power plant on retail power rates, nor the impacts such potential rate changes may cause are under NRC's regulatory purview; therefore, these comments will not be considered further.*

2.23 General Comments in Support of the Licensing Action

Comment: I am writing in support of the Fermi 3 application. (**0005-1** [Simonton, Aaron])

Comment: I am delighted to hear of the new nuclear plant that is being proposed by DTE Energy at Monroe, Michigan. I support the idea. This will help retain jobs and produce new jobs for the area as well as be good for the environment. This is a win/win proposition. It will help strengthen the United States as a global economic competitor. Please do not delay this vital project. (**0009-1** [Tigay, Barry])

Comment: I would like to offer support for DTE Energy's proposed Fermi III power plant from a fresh new perspective. As producer of some of our communities finest and most well attended events and activities, as well as leading the organization responsible for marketing and promoting Monroe County as a tourism destination, my experiences with DTE Energy, their employees and their facilities have been, well, a powerful one.

DTE Energy is one of our communities largest employers and yes they are responsible for tremendous economic impact and development. But what folks may not know, is that to organizations like mine, they are responsible for tremendous impact on the quality of life here in what they give back as volunteers, sponsors and friends. Through their McCarthy Grant program, as one example, hundreds of volunteers work tirelessly at events throughout our community, insuring that they are well staffed, offering warm and friendly hospitality and seeing to it that the events achieve the greatest success possible. Our River Raisin Jazz Festival is one fine example of that, attracting more than 50,000 music lovers to Monroe to enjoy a weekend chock full of FREE LIVE Jazz music on the banks of the Historic River Raisin the 2nd weekend of August each year. Now in its 8th year, the Jazz Festival is the pride of Monroe County and Michigan as one of the largest and most successful FREE festivals in the state. This is in no small part due to the contributions of DTE Energy, their volunteers and our other Jazzy partners.

In addition, the workforce that is employed by DTE both home and from far and away, provide our community with a constant influx of what we affectionately refer to as "occupational tourists". Folks who travel to Monroe County for work, yet seek the same fun, entertainment, dining, shopping and other "tourist" activities as do families who come to stay with us for leisurely vacations. Over 20 million visitors pass through our community each year, representing nearly a half billion dollar economic impact on our county. DTE Energy employees and contractors are a major contributor to these statistics and those who benefit from them. As the single largest contributor to Congressman John Dingell's International Wildlife Refuge, DTE is an outstanding steward of our environment as well.

All in all, DTE Energy, their employees and their power plants here in Monroe County that provide electricity to our homes, schools, businesses and places of worship, make a significant contribution to every aspect of our lives. On behalf of the Board of Directors of the Monroe County Convention & Tourism Bureau, we are both grateful and excited about the future contributions made to Monroe County and its citizens by our friends and their families of DTE Energy. (**0012-1** [Patterson, John])

Comment: Aside from the positive air quality benefits of nuclear energy, practical benefits arise from the construction and operation of a nuclear power plant. Principally, the economic impact on the community is tremendous. As the global economy sags to its lowest point in the post Great Depression Era, we are challenged to create opportunities for growth and sustained employment for families. The building and construction of a power plant such as the one proposed by Detroit Edison includes the creation of an abundance of well paying jobs. Employment opportunities will also be generated as a result of the operation of the plant.

As one who has spent considerable time advocating and ministering to the needs of those victimized by unemployment, displacement and poverty in general, the prospect of jobs in energy is a beacon of hope. The costs for energy can eventually be contained through the use of nuclear and other alternative forms of energy production. As the cost of natural gas and crude oil steadily increases, all measures which help reduce costs for consumers should be given significant consideration.

As it relates to the educational benefits, several Michigan high schools have already developed curriculum specific high schools and community colleges which focus on careers in energy. Much of this curriculum in rooted in science, mathematics, and chemistry. These are all areas where increased interest would be a much needed boost to our workforce readiness.

Energy clearly represents a growth area in our national and global economy. The building, construction and operation of a nuclear power plant here in Michigan will put us amongst the industry leaders in the field of energy. Students currently in K-12 education today could be steered toward careers in energy tomorrow. We must continuously cultivate the prospect of energy becoming the key industry to replace our changing automobile centered economy.

Based on all relevant data, it appears clear that the construction and operation of a new nuclear plant will have many beneficial effects on the community at large. It is nothing less than our duty to insure that those who are often left out of the discussion of emerging opportunities be included in the discussion of the possibilities associated with nuclear energy.

I trust the NRC will give due consideration to the arguments presented herein in favor of the construction and operation of an additional nuclear power plant here in Michigan. (**0014-2** [Marks, Esq., D.Min, Bertram])

Comment: Now, Detroit Edison, which is a subsidiary of DTE Energy, is considering the possible construction of a new nuclear power plant on its Fermi 2 property in Newport, Michigan. In considering a new power plant now, Detroit Edison is acting in the best interest of our customers by making sure it is prepared to meet the State's future energy needs. (**0058-12** [Mentel, Floreine])

Comment: I see our surroundings being a bad economy, high unemployment rates, and the welfare of our community at stake.

DTE Energy, DTE Energy Foundation, and their employees are continuing resource and support system for the economic growth and stability needed in Monroe County. DTE Energy continues to be the largest single employer in Monroe County. The Corporation and their employees are also the single largest charitable contributors in the community. Not only do they continue with their monetary contributions, but they also contribute freely of their time. The employees are a great, valuable resource in the volunteerism they provide to our organizations. They do everything from holding coat drives for kids to working the community meals program that serve the hungry and homeless.

The construction of a Fermi 3 would most definitely enrich the economic environment of Monroe County. Not only will it assure the current jobs, but will add jobs to the community, boost rental and retail income, and certainly increase the philanthropic outlook. As a representative of a non-profit sector, I am endorsing the construction of nuclear energy plant, Fermi 3. (**0058-44** [Carroll, Connie])

Comment: The newly formed Economic Development Corporation in the community was thrilled to have Detroit Edison at that time expand their operations to include the construction of Fermi 2, which proudly put Monroe County on the map. Here we are, back again after 26 years, just as excited and in full support of DTE's actions to file an application for licensing of another nuclear power plant at their Newport location. Should the licensing process lead to the decision of building another nuclear plant, our local and State economy will benefit by some $430 million

annually through the increased sales of goods and services from the plant's operations that filters through our local economy. It will also add an additional $40 million annually in total labor income that will be spent in our communities.

The EDC recognizes that this is a rare and unique opportunity that other communities could only dream about. On a long term range view, it's comforting to know that a Michigan based company, such as DTE Energy, has the foresight and the interest in building an electric generating source that will help facilitate Michigan's economic expansion in the years to come. We therefore fully support DTE's licensing application and stand ready with anticipation to assist the process in any way possible. (**0058-76** [Oberleiter, Tracy])

Comment: I've had many opportunities to interact with DTE Energy and its staff, and the many organizations that it supports. As events of recent months have shown us all too clearly, the economy of Southeastern Michigan is certainly suffering. Unemployment is nearing double digits, home foreclosures are historic highs, property values declined 20 percent in 2008, and the Detroit auto companies, along with their suppliers are struggling to survive.

These impacts, because of this economy, are being deeply felt in Monroe County, which is reeling from announcing -- recently announced job cuts from area industries and businesses. Both large and small, these businesses, like Automotive Component Holdings, recently closed 480 jobs. Elimination of 60 jobs at the La-Z-Boy world headquarters. Holcim announced the closing of its cement making operation, a loss of another 163 jobs, plus, more recently, the regional headquarters has laid off several people in Dundee. Another 140 people are left homeless -- or left jobless with the closing of International Papers Operation in Monroe and Brownstown Township. Several smaller manufacturers had to reduce their workforce, due to the cutbacks in the automobile industry and the local economic conditions.

Due to conditions such as these, many of our young people have had to leave home to start out their careers in other areas of the country that are enjoying more robust economies. A big concern of mine, both as an educator and as a person whose interest in the development of the community, is the fact that Monroe County's largest export may be its young people. It's young people who are bright enough and eager enough to work in this industry.

I'm not going to go through the job creation numbers. Those have been shared out here today with 2400 jobs in construction and 700 jobs when the plant's in operation, and another 700 jobs in services that will be a partner with that DTE. But Monroe County must change and adapt to these economic realities by developing new industry and business opportunities that grow out of innovation and new technology. Bringing to fruition the potential plans by Detroit Edison to pursue the construction of a new nuclear power plant on the site of Fermi 2 is something that I not only strongly support, but may well prove to be a bridge to a better future for the young people in Monroe County. It will help stabilize the local tax base, which has been battered by falling home prices, and losses of local industries and businesses. A new nuclear power plant would help our municipality sustain, and in some cases, restore the level of services expected by their constituents. Providing these new employment opportunities may well serve to help preserve our family unity by keeping our young people home. (**0058-78** [Morris, Bill])

Comment: We recognize this project will allow DTE to produce clean, dependable, affordable, and sustainable electric power, to improve and accommodate future industrial, commercial, and residential development. It has been stated that Michigan's current energy framework requires fundamental changes to avoid reliance on out of state energy providers and to implement energy efficiency measures that will help consumers.

The construction of the new plant will generate new jobs for your area. This is a unique opportunity to promote alternative energy source, and the results of this investment will contribute to Michigan's economic prosperity, and will positively impact local businesses and the overall quality of life in your region. The Southern Wayne County Regional Chamber strongly supports DTE Energy's application to build a new nuclear power plant in the Fermi complex. (**0058-79** [Anderson, Alan])

Comment: We need to think in terms of economic development and the well-being of our citizens. We know Detroit Edison to be a responsible citizen the community. Detroit Edison has contributed greatly to the economic well-being of our community. We have a high quality of living, in large part, due to Detroit Edison. They provide a significant tax base, a high quality of jobs, well educated employees who have given much to the community. They've been a positive influence on the preservation of marshland adjacent to their plants. While this facility may not be in the City, City residents will derive the economic benefits of a new power plant at a time when jobs are desperately needed. (**0058-94** [Worrell, Mark])

Comment: I would expect that the new Detroit Edison employees at Enrico Fermi 3 will actively support our community as current and past employees has consistently demonstrated. Given my active involvement in the community, my years of experience in the power generation business, and as a long time resident of Monroe, I wholeheartedly support this proposed edition of safe, reliable, clean energy for Monroe County. (**0058-114** [Smolinski, Myron])

Comment: I wish to offer strong support for the Fermi 3 project on behalf of the membership of the Michigan Chapter of ANS. The Fermi 3 project offers a unique opportunity to the people of the City and County of Monroe, as well as the State of Michigan-at-large. The benefits of the proposed construction Fermi 3 are numerous. They include, increased electrical generation capability necessary to improve and sustain economic growth. And I want to emphasize the word "growth." Increased energy independence and power source diversity for the State and country as a whole, addition of many good paying jobs to the Monroe area for plant construction and operation, additional economic activity generated by support businesses for the facility, increased tax revenues for the County and local municipalities from increased property tax base, and I think most importantly, deployment of a safe, efficient, and environmentally friendly technology. (**0058-119** [Lavelline, Joe])

Comment: I have heard and been a part of discussions about diversifications of Michigan economy since a very early age, ever since I can remember. Unfortunately I feel that this is just been that, talk, for far too long. The Fermi 3 project represents an opportunity for Southeast Michigan to take a significant tangible step towards economic resiliency in the future. (**0058-122** [Lavelline, Joe]; **0059-86** [Lavelline, Joe]; **0083-15** [Lavelline, Joe])

Comment: I would very much love to see this Fermi 3 built. It doesn't have to have a local power input. The wonder of electricity is that it can be transported practically anywhere, and if they can sell it to someplace that needs it immediately, fine. If develop a need for it here, it's here, and it will be for many, many years. (**0058-131** [Meyer, Richard])

Comment: And so, again, we appreciate Detroit Edison's being proactive in trying to assure that there is a viable and positive future. I know there's a lot of determinations and things that need to take place. But again, we appreciate that they are positioning us to take care of our needs in the future. (**0058-137** [McGuire, Jim])

Comment: And I hope that you people of this community, Southeastern Michigan, have the vision that Detroit Edison does, to be able to put this Fermi 3 online, because you're going to need it in the future. (**0058-141** [Keith, Fred])

Comment: And more than that I have faith in DTE Energy that they're going to do the right thing, and I hope they decide to build the plant and receive the permission to build the plant in Monroe County. (**0059-11** [Morris, Bill])

Comment: The newly formed Economic Development Corporation and the entire community were thrilled to have Detroit Edison, at that time, expand their operations to include the construction of Fermi 2, which proudly put Monroe County on the map. Here we are, back again after 26 years, just as excited and in full support of DTE's actions to file an application for licensing of another nuclear power plant at their Newport location. Should the licensing process lead to a decision of building another nuclear plant, our local and State economy will benefit by some $430 million annually through the increased sales of goods and services from the plant's operating as it filters through our local economy. It will also add an additional $40 million annually in total labor income that will be spent in our communities.

The EDC recognizes that this is a rare and unique opportunity that other communities could only dream about. On a longer range view, it's comforting to know that a Michigan based company, such as DTE Energy, has the foresight and interest in building an electric generating source that will help facilitate Michigan's economic expansion in the years to come. We therefore fully support DTE's licensing application and stand ready with the anticipation to assist the process in any way possible. (**0059-26** [Oberleiter, Tracy])

Comment: From someone that has been involved in the power industry for the last 32 years, I think it would be a winning situation for the community to build this next unit. (**0059-33** [Sweat, Ron])

Comment: This company has an obligation to serve, but it also has an obligation to its communities. You've heard that from others. To do it in a way that is ecologically friendly, and to do it in a way that really makes us all proud, that says we've contributed to the long term economy, and not something that we would have someone, or another company from an external locale, another state, another country, provide that opportunity to this community. We want to do it ourselves, for ourselves, for our community. (**0059-37** [May, Ron])

Comment: As I look around what I see is an economically deprived environment. Not only are we in low income we have a high rate of unemployment. I started my day today by chairing a local child advocacy network. For those of you who are not familiar with the Monroe County Child Advocacy Network, it's a group of local professionals who gather monthly to work on solving the issues of child abuse and neglect. Whether you're aware of it or not the average homeless person in Monroe County is an 8-year old girl. Last year the Child Advocacy Center of Monroe County investigated over 90 cases of sexual abuse committed against children. High unemployment, low economic conditions contribute to all these factors here in Monroe County. It's time that we try our best to do something about it.

DTE Energy, DTE Energy Foundation and their employees, are a continuing resource and support system for the economic growth and stability needed in Monroe County today. DTE Energy continues to be the largest single employer in Monroe County. The corporation and their employees are also the single largest charitable contributors in the community. Not only do they contribute monetarily to the United Way of Monroe County, and many other nonprofit

organizations, but they give freely of their volunteer services. Everything from holding coat drives to help our children, to serving meals with the local community meals program to feed the hungry and the homeless. The construction of a Fermi 3 will most definitely enrich the economic environment in Monroe County. Not only will it assure the current jobs, but will add jobs to the community, boost rental and retail income, and certainly increase the philanthropic outlook. As a representative of the non-profit sector, I'm endorsing the construction of Fermi 3 nuclear power plant. (**0059-82** [Carroll, Connie])

Comment: I wish to offer strong support of the Fermi 3 project on behalf of the membership of the Michigan Chapter of ANS. The Fermi 3 project offers a unique opportunity to the people of the City and County of Monroe, as well as the State of Michigan as a whole. The benefits of the proposed construction Fermi 3 are numerous. They include, increased electrical generation capability necessary to improve and sustain economic growth. Increased energy independence and power source diversity for the State and country as a whole, addition of many good paying jobs to the Monroe area for construction and operation of the plant, additional economic activity generated by support businesses for the facility, increased tax revenues for the County and local municipalities from increased property tax base, deployment of a safe, efficient, and environmentally friendly technology. One, that I might add, has been deployed effectively, not only here in this country, but in overseas as well, in France and Japan, to name a few, other countries that have a very large percentage of their generation capacity in nuclear power.

Since the focus of this meeting is environmental issues I want to say a few words in regard to this matter. The Society's members care deeply about being good stewards of the environment. Many of our families and friends live in close proximity to the Fermi site. I, myself, live about five miles away from the site and have for over 15 years. We breathe the same air and drink the same water as the public-at-large, and therefore take environmental issues very seriously. One cannot read a newspaper or watch a television news program without seeing references to the desire for decreased reliance on carbon-based fuels for national security and environmental reasons, to name a few. The Fermi 3 project provides a step in the right direction towards achieving this goal. (**0059-84** [Lavelline, Joe]; **0083-11** [Lavelline, Joe])

Comment: I am here this afternoon to make public comments in favor of Detroit Edison's license application to build a new nuclear power plant on the Newport, Michigan site, next to the present nuclear power plant. (**0082-38** [Cappuccilli, Al])

Comment: The newly formed Economic Development Corporation and community were thrilled to have Detroit Edison at that time expand their operations to include the construction of Fermi 2 which proudly put Monroe County on the map. Here we are back again after 26 years just as excited and in full support of DTE's actions to file an application for licensing of another nuclear power plant at their Newport location. (**0082-39** [Oberleiter, Tracy])

Comment: The construction of another unit would benefit the whole community with hundreds of good paying jobs. These jobs would contribute millions of dollars to the local economy and a badly needed revenue source for our local and state governments so that they may continue to provide the services that we have come to expect. This will effect all businesses from the grocery store, the restaurant, the gas station, the car dealer, and landlords with housing to rent. Building another unit at Fermi would be a win for everyone in the community. (**0082-7** [Sweat, Ron])

Comment: I support DTE Energy's application to construct an additional nuclear facility at the Newport, Michigan site. (**0082-9** [Spencer, Dr. Donald A.])

Response: *These comments provide general information in support of the proposed Fermi 3 nuclear plant and will not be evaluated further.*

2.24 General Comments in Support of the Licensing Process

Comment: We have a great deal of respect and confidence in the Nuclear Regulatory Commission as the nation's regulator of the civilian nuclear power industry and to protect the public health and safety and the environment. Nevertheless, due to the magnitude of this potential nuclear power plant project, and the sensitivity of the environmental factors in Michigan, we strongly encourage that the NRC ensure that this review process be robust, and as robust as possible, and ensure that the process be as open and transparent as necessary to ensure a sound decision that assures the public's trust and confidence in that decision. (**0058-66** [White, Greg])

Comment: And I had a chance last summer to meet with the NRC and look at this process. I couldn't believe it. And the word integrity I believe I can apply to the NRC. Surprise. But the process that they go through, the process they put the community through to do a project like this, I think holds a lot of integrity. So I have faith in what the NRC is doing here in Monroe County. (**0059-10** [Morris, Bill])

Response: *These comments express general support for the NRC COL and environmental review process, but do not provide any specific information relating to the environmental impacts of the proposed action. Therefore, these comments will not be considered further in the EIS.*

2.25 General Comments in Support of Nuclear Power

Comment: As I have examined the impact of energy production and consumption, I am convinced that nuclear energy represents a clean, safe, alternative to the production of energy.

It is my fervent belief that we must be good stewards of the great gift that God has provided mankind called planet earth. Our atmosphere, biosphere, and ecologic systems should be very carefully and deliberately maintained. There is simply no better method for producing clean and safe energy than nuclear energy. Nuclear reduces harmful emissions which threaten our health and safety. As a community we cannot simply ignore the incredible demand for energy. Equally, we cannot afford to ignore emissions created from the production of energy which are harmful. Instead, we should embrace all techniques which contribute to the reduction of harmful emissions or reduce harmful emissions in their entirety.

Nuclear represents clean air. Clean air energy production is an example of excellent stewardship of God's green earth. (**0014-1** [Marks, Esq., D.Min, Bertram])

Comment: According to the U.S. Department of Energy our electricity demand will increase 21% by 2030. Here in Michigan, nuclear power provides 26% of the state's energy needs. Emission-free sources, like nuclear power plants, supply safe, reliable and affordable power to meet the state's economic growth without polluting the air. An additional new reactor at the Fermi site would only improve the state's air quality by reducing the emission of greenhouse gasses.

Michigan has experienced a severe loss of jobs and little growth in our economy due to the struggles of the auto industry primarily. To get Michigan's economy growing, the state will need new sources of power -- power that is good for the environment and the economy.

And as our CASEnergy Jobs white paper titled "Job Creation in the Nuclear Renaissance" points out if U.S. companies were to complete the more than 30 reactors now under consideration, between 12,000 and 21,000 new jobs would be added to the market. The nuclear energy industry has already created 15,000 new jobs and added $4 billion to the economy to prepare for building new state-of-the-art reactors. You can access the white paper on our Web site www.CleanSafeEnergy.org.

Nuclear energy is clean. The environmental impact at nuclear plants is far lower than at many other types of power-generating plants. Nuclear energy is safe. In fact, the U.S. Bureau of Labor Statistics has shown that it is safer to work at a nuclear power plant than in the manufacturing sector and even in the real estate and financial industries. A nuclear plant makes a good neighbor. It supports high-paying jobs directly at the plant, generates additional jobs in the community where it is located, and contributes by helping to build good schools and roads. In these economic times, there is no stronger argument in support of the expansion of nuclear power. (**0046-1** [Stone, Paula])

Comment: Indeed, many in the environmental movement, who have previously been skeptical of nuclear power, are now advocates for this deployment and as part of a diversified -- and I emphasize also diversified energy portfolio. (**0058-121** [Lavelline, Joe])

Comment: I'm very much in favor of the high tech route to go, and one that provides employment and giving us something that is really using our brains instead of our laziness to get something done. (**0058-129** [Meyer, Richard])

Comment: At the same time, increased concerns about the state of the environment has caused industry ways to supply clean and reliable power to its customer. Nuclear power currently provides 75 percent of the emission free clean energy generated in the United States. (**0058-14** [Mentel, Floreine])

Comment: Nuclear power I was always a skeptic of it when I first started. But over 30-some years and working in several nuclear sites, these people know what they're doing. They're safe. They deal with this thing day in and day out, and they know how to -- you can't believe the amount of safety it takes to work in a nuclear facility. (**0058-140** [Keith, Fred])

Comment: During these times of concern over greenhouse gas emissions and global warming, nuclear power is a safe and viable alternative to domestic and foreign fossil fuels. (**0058-143** [Sweat, Ron])

Comment: With the concern about greenhouse emissions and global warming, nuclear power is a safe and viable alternative to domestic and foreign fossil fuels. (**0059-29** [Sweat, Ron])

Comment: At the same time, increased concerns about the state of the environment has caused industries ways to supply clean and reliable power to its customer. Nuclear power currently provides 75 percent of the emission free clean energy generated in the United States. (**0059-6** [Mentel, Floreine])

Comment: I just wanted to say wherever I lived near the nuclear plants, it was always a desirable area to be in, very prosperous areas. Nuclear plants have that positive effect on them. As far as nuclear plant workers, they are most responsible, highly trained, and environmentally conscious people that I know. Nuclear plants are good environmental neighbors, and I'd recommend approval of Fermi 3 license, you know, just based on living near nuclear plants where I worked and the utilities are always a good neighbor.
(**0059-71** [Fulara, Dan])

Comment: Indeed, many in the environmental movement, who have been skeptical of nuclear power in the past, are now advocates for its deployment as part of a diversified energy portfolio. And I think in lieu of the discussion that's taken place here, I'd emphasize the word diversified, diversification of an energy portfolio. Something that the Society is a strong advocate of, and nuclear power I think is a key to that diversification.
(**0059-85** [Lavelline, Joe])

Comment: During these times of concern over greenhouse gas emissions and global warming, Nuclear power is a safe and viable alternative to domestic and foreign fossil fuels. (**0082-4** [Sweat, Ron])

Comment: Indeed, many in the environmental movement who have been skeptical of nuclear power in the past are now advocates for its deployment as a part of a diversified energy portfolio.

Finally, on a personal note, as someone who has lived the vast majority of his life in the State of Michigan and is the son of a father who worked most of his career for automotive component suppliers, I have heard and been a part of discussions about the diversification of Michigan's economy since a very early age. Unfortunately, I feel that this has just been "talk" for far too long. The Fermi 3 project represents an opportunity for Southeast Michigan to take a significant, tangible step toward economic resiliency in the future (**0083-12** [Lavelline, Joe])

Response: *These comments provide general information in support of nuclear power. They do not provide any specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS.*

2.26 General Comments in Support of the Existing Plant

Comment: While I do not pretend to understand all the issues related to nuclear power I have lived and worked close to Fermi 2 since 1969. In the early 1970s I protested against Fermi 2 because of the Fermi 1 incident and at that time there were many questions and uncertainties about the safety of nuclear power and its impact on the environment.

Today I am a proponent of nuclear power for a number of reasons. First we have made quantum leaps in technology and engineering which provide greater knowledge and make the operations much safer. Secondly, over those years Fermi 2 has been a very good neighbor and strong supporter of our community. Third, nuclear energy does not contribute to global warming by producing carbon dioxide, sulfur oxides or burn anything to produce heat so there is no particulates or ash being emitted. Nuclear power does not create the waste in the volumes that fossil fuels produce and is better managed.

Finally, Fermi 2 has boosted economic growth in the surrounding community and supports high

paying jobs which have helped keep a healthy local economy. Without a healthy local economy there is not funding to provide for the human services needs of children, adults at risk or our frail and vulnerable elders. Thanks to Fermi 2 Monroe has remained a caring community and the quality of life is very good. (**0005-2** [Simonton, Aaron])

Comment: DTE Energy's Fermi 2, Monroe Power Plant and Newport Service Center are a vital piece of the Monroe and Michigan economy. There are over 2000 employees of DTE who live or work in Monroe County. And every 18 months the Fermi 2 refueling brings over 1000 temporary workers into the county supporting local businesses. The company has been a solid corporate citizen in Monroe County for decades providing corporate contributions and leadership for many community organizations in the county. Employees volunteer for community projects, serve on boards, and provide leadership in the community. DTE and its employees and retirees are the largest givers to the Monroe County United Way making up about 20% of the 2009 campaign goal. DTE has been a longstanding supporter of education and other community initiatives.

DTE Energy is a committed environmental steward and as such its power plants have been designated by the State as a clean corporate citizens and/or are wildlife habitat certified. DTE has many times been recognized for its environmental leadership. (**0010-1** [Mahoney, Charlie])

Comment: I've worked and managed several Michigan communities and found that DTE is, more than anywhere else, a part of the fabric of the Monroe community, and probably, as I understand some of the history, especially over the past 40 years or so.

Obviously they're a major employer here, but it's those employees and officers of that company that have become the fabric of this community, being very active and providing leadership. The leadership institutions, the charities, the community based events and initiatives. DTE is always out front and always present.

We also find that over the several years, DTE has started to take an evolving role on environmental initiatives and leadership. Again, this is a new experience, as active and as present as it is for me, in comparison to other communities that I've been part of.

This community is probably better prepared and poised to host a new facility, an expanded facility, just due to the fact that we have experience and presence, and acceptance as part of the fabric of the community of the facilities that are here already, including the older coal fuel plant and the newer Fermi 2 plant. Transportation, employee skill sets, an active communication network; very active communication network; emergency preparedness; and several other components that are needed for a community to adjust to, are already in place here. (**0058-1** [Brown, George])

Comment: Fermi has been a big part of my life in many ways. I have grown up around it with no fears. Some may see it as an eyesore or a threat, but to me it is something I have been around and experienced, and have no complaints living by. Not only has Fermi just been a neighbor, but it has been a supporter of my school. With the money it has granted to Jefferson High School it has let me experience top notch facilities to earn an education and practice sports. When I have visited other schools to participate in sports or watch my friends, their facilities, and I've seen theirs, I feel that with the money that Fermi has granted us, it has made our school better and I am very grateful with what they have done. (**0058-111** [Ellison, Jacob])

Comment: I drive past the fence on the Fermi property out there on Pointe aux Peaux Road and luckily, if I'm able to spot a deer -- they are plentiful over there, they like it. I think Detroit Edison has been a wonderful steward for their property over there, and I love the high-tech aspect of having challenging things for the young people. (**0058-127** [Meyer, Richard])

Comment: The Fermi Energy Center and DTE have been good and responsible neighbors to the community. Not only have they provided clean and safe energy, they've provided many good paying jobs for the area. They have also been recognized for their conservation efforts relating to the Fermi site. (**0058-142** [Sweat, Ron])

Comment: DTE has placed safety at the forefront in its operation of Fermi 2. In the course of the operation of Fermi 2 there have been no problems that have ever presented an environmental or health threat to the public. (**0058-144** [Sweat, Ron])

Comment: DTE has recognized that there ought to be dignity in the workplace. They place safety of the utmost importance. And let me say to you, yes, almost all their projects are union. And there's a significant importance to that because when folks have the right to be -- to have collective association for collective bargaining, they have due process. And it enables workers on a work site, that if they see a person or contractor wanting to cut corners in some way, shape, or form, where might be a detriment to safety, not just to that individual worker but the surrounding worker, if they're at will and without a union, even for doing the right thing, they can be fired and go down the road. And that can be kept quiet in many ways.

But when they've got collective bargaining rights, thereby due process, and they see something wrong they can do something about it and still have their job. In this institution, DTE in this specific case recognizes that. Not only recognizes it, but respects it. They have great safe work sites. They care about the environment. I'm not going to go into the details of other things that were said. But I can put trust in them, personally, and on behalf of the contractors and workers, that these folks are not going to have them in an unsafe environment. (**0058-147** [Hesson, Gerald])

Comment: Fermi 2 is a good employer, approximately 800 good paying jobs. You know, they're all talking about that our children cannot stay in the area to have a job. Here would be the chance for our young people in Monroe County, with those degrees, to stay here and have a job.

Fermi 2 has received the State's highest safety award from MIOSHA Energy Star Good Environmental Steward, with 650 acres dedicated to the Detroit International Wildlife Refuge, is a wildlife habitat, certified site, designated a clean corporate citizen by MDEQ, has a great track record. (**0058-17** [Mentel, Floreine])

Comment: I've had the opportunity to be involved with many of DTE's management and staff and community and educational affairs. I have always found them to be highly conscientious concerning their responsibilities.

First and foremost, the Fermi 2 plant is a model for how a nuclear facility can operate efficiently and safely. Safety and the environment are the top concerns for anyone I have ever met associated with Fermi. I believe DTE Energy should be supported to operate such facilities.

DTE Energy's employees bring with them other benefits to the Monroe County community. They serve on school boards; they're leaders in the United Way campaigns, and other charitable

efforts. Their children attend our community schools. In short, DTE Energy and their employees make Monroe County a better place to live.

I also want to comment on DTE Energy's corporate presence in our educational community. Monroe County students have benefitted from DTE's energy grants; their sponsorship of fund-raising activities for Project Read; sponsorships for early childhood programs; sponsorships supporting Monroe County's Educational TV; donations towards renovation toward our Holiday Camp facility, which is a camp for students with disabilities; and the funding through local property taxes for Michigan's only technology enhancement millage and special education mileages.

In conclusion, DTE Energy is a role model for other corporations and has demonstrated great responsibility in maintaining an outstanding safety record and history of community stewardship throughout the Monroe County region. Our economy, of course, also needs the shot in the arm that a construction project of this magnitude would supply to Southeastern Michigan. For all these reasons I support DTE Energy's application to construct an additional nuclear facility at the Newport, Michigan, site. (**0058-60** [Spencer, Dr. Donald A.]; **0082-8** [Spencer, Dr. Donald A.])

Comment: This afternoon you heard many references to DTE's involvement and contributions to the new International Wildlife Refuge. Long before the creation of the Refuge, DTE has been a major financial partner in local and state Ducks Unlimited organization, providing much needed financial support in receiving management assistance for wildlife enhancement with their Newport and Monroe properties. They are today, as they have always been, a good environmental steward of their properties. (**0058-77** [Oberleiter, Tracy])

Comment: Throughout the years DTE Energy has proven to be an environmental friendly neighbor that has taken an active part to protect our natural resources and to improve the quality of our environment. DTE has exemplified itself by successfully completing the ISO 14001, an international standard for environmental quality management in both the Fermi 2 and the Monroe Power Plant; and received in Michigan Occupational Safety and Health Administration coveted Michigan voluntary protection program star award, while working over 5 million safe hours. They were designated a clean, corporate citizen from the Michigan Department of Environmental Quality, and is a dedicated supporter of the Downriver International Wildlife Refuge, and was awarded the wildlife site of the year from the Wildlife Council.

Let us not forget the proud tradition of the community service by DTE Energy Foundation and the DTE employees that ignites the community to fulfill pubic improvement projects, such as the wildlife habitats, United Way of Monroe, Habitat for Humanity, the Lotus Garden, American Red Cross. The list just goes on. Many local community projects. We must not, nor shall we forget the environmental impacts that come with such a project.

The County of Monroe stands ready to accept its responsibility as it has done with Fermi 2, to provide for the safety and welfare of our citizens. (**0059-2** [Zorn, Dale])

Comment: Before DTE's strong alliance and land investment with the International Wildlife Refuge, they have been a long term, and I mean a long term for many years, a major financial partner with both the local and state Ducks Unlimited organization, providing much needed funding and receiving professional management assistance for wildlife enhancement at their

Newport and Monroe properties. They are today, as much as they ever have been, a good environmental steward of their properties. (**0059-27** [Oberleiter, Tracy])

Comment: The Fermi Energy Center and DTE have been good and responsible neighbors to the community. Not only have they provided clean and safe energy, they have provided many good paying jobs for the area. These are jobs that you can raise a family on, you can buy a home on; you can send your kids to college. And, they have also been recognized for their conservation efforts relating to the Fermi site. (**0059-28** [Sweat, Ron])

Comment: DTE has always placed safety at the forefront in the operation of their power plants. In the course of the operation of Fermi 2 there have been no problems that have presented an environmental or health threat to the public. (**0059-30** [Sweat, Ron])

Comment: The deer are there, there's all the trails. They take excellent care of that property. Environmentally they're great neighbors. Yeah, the mosquitoes are a little thick on those trails, but that's just a minor problem at that particular place. (**0059-4** [Mentel, Floreine])

Comment: Now, Fermi 2 is a good neighbor, a good employer -- and it has recovered the State's highest safety award from MIOSHA Energy Star, and it also is very good with the 650 acres that are dedicated to the Detroit International Wildlife Refuge. (**0059-8** [Mentel, Floreine])

Comment: Working with the IDC I have an opportunity, and I've had the opportunity to meet with probably 98 percent of the companies in Monroe County. I have yet to meet with a company with more integrity and more commitment to community involvement than DTE Energy. I've had an opportunity in the schools when I needed help. For example, our science fairs. DTE didn't just throw us $500 and said, here, use this. They sent people out to work with the young people, to identify projects, to teach them how to do research, teach them how to put their thoughts on paper and conduct the experiments. That's better than a $500 donation.

The tech millage -- Monroe County is the only county in the State of Michigan to have a millage voted by the people dedicated to technology in the K-12 schools. We're very proud of that. There were 10 companies that spearheaded that, and DTE was right at the top of the list. Not only did they support it in the initial election, they supported it in the two subsequent renewals, renewals that passed as high as 71 percent for.

A lot of companies talk about their partnership with their communities. A lot of companies give you lip service. We don't get lip service from Detroit Edison. We get commitment, we get dedication, we get real support, and that's what I base my comment on integrity on. When I think of Detroit Edison I think of integrity. (**0059-9** [Morris, Bill])

Comment: Yet for Wildlife Habitat Council it is not just about the habitat. Each corporate program that is certified by Wildlife Habitat Council also includes community partnerships and elements of environmental education. On these elements, the team at Fermi 2 has also delivered. They have partnered with scout troops and the local school system to use the site's habitats for education. The Fermi 2 team works with National Audubon and the Michigan Department of Natural Resources for bird counts and pheasant releases. As you may know or will hear from others, the Fermi 2 team also cooperates with US Fish and Wildlife Service in maintaining the plant's wildlife acreage as part of the Detroit River International Wildlife Refuge.

DTE Energy's Fermi 2 Power Plant has shown a commitment to managing their land to benefit wildlife. Preliminary plans for a potential new reactor were drawn in a way that would preserve

the wetlands and other habitat areas. With these past actions as a guide, Wildlife Habitat Council is convinced that construction of any additional units at Fermi 2 will not harm the habitat that is at such a premium for our region's wildlife. (**0082-2** [Gruelle, Martha])

Comment: The Fermi Energy Center and DTE have been a good and responsible neighbor to the community. Not only have they provided clean and safe energy they have provided many good paying jobs for the area. They have also received several conservation awards relating to the Fermi Site. (**0082-3** [Sweat, Ron])

Comment: DTE has placed safety at the forefront in its operation of Fermi II. In the course of the operation of Fermi II there have been no problems that presented an environmental or health threat to the public. (**0082-5** [Sweat, Ron])

Response: *These comments express support of the existing Fermi 2 nuclear plant and Detroit Edison in general. They do not provide any specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS.*

2.27 General Comments in Opposition to the Licensing Action

Comment: I am opposed to Fermi 3 because there is no proof that nuclear energy is safe. Three Mile Island, and the debacle in Chernobyl may be merely the tips of some very dangerous Nukebergs in the long run. The exorbitant costs of building another such plant will make consumers pay more for their energy. We should have learned our lesson from the costly debacle involving the creation of Fermi 1! Adding another nuclear plants potentiates the environmental risks we already face from the first two nuclear plants. As a citizen, tax payer and voter, I strongly oppose this effort to expand the use of nuclear technology. Please cease and desist this outrageous plan to build Fermi 3! (**0003-1** [Walker, Joseph])

Comment: In light of the urgent importance of ANY expansion of nuclear [the word to be used as a noun, not an adjective, for any and all application of deadly irretreviable hazardous radioactive materials and processes], I send you this flat rejection of the permit in question. (**0004-1** [Carey, Corinne])

Comment: The COL should not be approved (**0016-1** [Rivera, Gloria])

Comment: At this time, unless the question of safe storage of radioactive waste is solved, I am against the construction of Fermi III. (**0023-4** [Mechtenberg, Marilynn])

Comment: For the sake of future generations, please reject the Fermi 3 proposal (**0031-1** [Rysztak, Robert])

Comment: Please reject Fermi 3 (**0031-6** [Rysztak, Robert])

Comment: Please reject the Fermi 3 license request. (**0032-1** [Rysztak, Robert])

Comment: Again I say, wind and solar offer no worst case scenarios like that of nuclear power. For that reason alone, you should reject the Fermi 3 license request. Future generations await your decision. (**0032-8** [Rysztak, Robert])

Comment: I am strongly against the construction of another nuclear power plant in Monroe County or anywhere else for that matter. (**0034-1** [Nett, Ann C.])

Comment: I support efforts to stop the installation of a new nuclear reactor at the Fermi site in Michigan. (**0035-1** [Vitale, Fred])

Comment: I am opposed to adding to the nuclear power plants in southeast Michigan (**0039-1** [Mitchell, Rita])

Comment: That the application for a construction and operating license for a new DTE Fermi3 Reactor be denied at this time. (**0041-1** [Englund, Lance])

Comment: I hereby admonish the NRC to deny the proposed construction and operating license to DTE for the proposed Fermi3 plant! (**0041-7** [Englund, Lance])

Comment: Having attended your scoping meeting and reading extensively on the proposed Fermi 3 nuclear power plant, I am shocked that you would even give it a consideration. There are so many reasons to oppose it (**0047-1** [Bettega, Gayle])

Comment: There are many reasons that DTE's proposed new reactor at its Fermi Nuclear Power Plant near Monroe, Michigan on the Lake Erie shoreline is unacceptable. (**0050-1** [Kamps, Kevin])

Comment: There are many reasons not to approve the license for Fermi 3. I hope the issues presented here will help to bring that about. (**0053-7** [Nordness, Dorothy])

Comment: Please reject all licensing for Fermi 3. (**0054-6** [Drake, Gerald A.])

Comment: I write in opposition to funding Fermi 3, This is a boondoggle that needs to cease and desist. Stop any further funding. Future generations are already saddled with the $ billions of dollars it'll take to clean up this radioactive mess. Do not saddle future generations with this unnecessary burden. They'll have enough on their collective plates to clean up and climb out of trillions of dollars in current national debt due to the Wall St financial meltdown, millions of home foreclosures, and millions out of work. Stop funding Fermi 3 NOW! As a member of The Nuclear Free Great Lakes Coincil, I speak for ALL future generations. Send this dinosaur to the heap. (**0056-1** [Shumaker, John])

Comment: If Fermi is a poster child for everything that can and will go wrong with nuclear, do we really want to leave this legacy to future generations? (**0058-39** [Yascolt, Stas])

Comment: If this plant is to be built, I don't think it should be built in the western basin of Lake Erie. (**0058-57** [Bihn, Sandy])

Comment: There are many reasons why I feel the scope of the Environmental Impact Statement needs to be greatly expanded for review. Basically Fermi 3 is a very bad idea for many reasons, as you have been able to hear today. (**0058-80** [Newnan, Hal])

Comment: Allowing this plant to even be considered is a disaster in the making of unprecedented proportions for our area. And those who permit it and those who build it, and those who prosper from it, will need to be held accountable. (**0058-83** [Newnan, Hal])

Comment: To sacrifice the Great Lakes, to endanger entire populations, to create economic shortages, to allow corporations to get away with bankrupting the country for their own private greed is a crime. We must not allow it. We must not allow another Fermi nuclear reactor or any other nuclear reactor. Unsafe, aging nuclear reactors must be decommissioned, and replaced by wind, water, hydraulics, not dams, thermal and solar power.

At a previous meeting a NRC spokesperson stated the Agency was not for or against nuclear reactors. It is a regulatory agency with the purpose of watch dogging them. Do you really need another problem? What is already here is not being watched enough. That is not humanely possible. The list of problems in the nuclear industry is limitless and increases as nuclear reactors age and continue to operate long past their intended use. The answer is not to build replacements. It is a false, arrogant pride, and ignorance, to think that there is some improved model that will solve all the problems. France has a plethora of unsolved problems with nuclear reactors. Fermi 3 is off to a bad start. We are not separate from our environment. We live in it and are dependant on it. Eco-systems overlap and intertwine in a miraculous, prolific, multitude of ways linking all life forms. When the environment is threatened, all humanity and future generations are threatened.

It is my demand that the application for Fermi 3, and all other new nuclear reactor applications be denied, and that all existing nuclear reactors be shut down permanently. (**0059-22** [Barnes, Kathryn])

Comment: Today, we cannot afford to look back to the failed technologies and business decisions of yesterday. A new future beckons in Michigan. We must seize the moment today. (**0059-61** [Wolfe, Robert])

Comment: I ask that you consider dropping the plans for the Fermi III nuclear power plant in Monroe, MI. (**0066-3** [Tinnirello, Nicole])

Comment: I am disappointed about the suggestion of building Fermi 3. (**0070-1** [Karas, Josephine])

Comment: some improved model that will solve all the problems. France has a plethora of unsolved problems with nuclear reactors. Fermi 3 is off to a bad start.

We are not separate from our environment. We live in it and are dependent on it. Ecosystems overlap and intertwine in a miraculous, prolific multitude of ways, linking all life forms. When the environment is threatened, all humanity and future generations are threatened. It is my demand that the application for Fermi3 and all other new nuclear reactor applications be denied and that all existing nuclear reactors be shut down permanently. (**0083-25** [Barnes, Kathryn])

Response: *These comments provide general information in opposition to the proposed Fermi 3 nuclear plant and will not be evaluated further. The NRC staff will carefully review the COL application against its regulations that are intended to protect public health and safety and the environment.*

2.28 General Comments in Opposition to the Licensing Process

Comment: I also object to a recent Federal Register notification, suggesting that if we want to be able to review documents which are not safety related, which are not security related, we

have to sign up and do a criminal background investigation, pay a fee of $191, and we will have to file that by, I think Saturday, in order to be eligible to review these documents. And they say you must present why you want to review these documents. Well, if I can't review the documents I don't know why I might, but I might find something in there that is of interest. So I see this as a blatant obstruction of democracy trying to conceal documents from the public. (**0059-63** [Keegan, Michael])

Comment: For a final point, I'd like to talk about the secrecy issue regarding this Saturday deadline for us to apply for access to sensitive information. So, sensitive safeguards, classified nuclear power, is apparently inherently unsafe and insecure. It's also incompatible with the transparency that is essential to genuine democratic decision-making. (**0059-78** [Kamps, Kevin])

Response: *The comments refer to NRC's January 8, 2009, hearing notice for the Fermi 3 COL proceeding, which contained an Order imposing requirements for potential parties seeking access to Safeguards Information (SGI) and to sensitive, unclassified, non-safeguards information (SUNSI). These comments are not within the scope of the staff's environmental review and will not be evaluated in the EIS.*

2.29 General Comments in Opposition to Nuclear Power

Comment: There are the serious and seemingly-limitless questions about nuclear [past, present and future] and particularly operations [of which this FWD is only one of many, largely unreported to the public threatened] and as always the unresolved problems of radioactive waste disposal, despite attempts of the world's brilliant scientists [whose very jobs depend on permanent resolution of the catastrophic waste, the true products of nuclear industry]. (**0004-2** [Carey, Corinne])

Comment: We all have a responsibility to act on behalf of all beings on this planet. We all have a responsibility to stop this toxic radioactive legacy. We cannot continue on this path to a toxic inheritance for future generations. (**0019-1** [Schemanski, Sally])

Comment: The track record of radioactive substances has been very consistent. Since the early 1900's, the effects of radiation have continuously been underestimated. At the very least, the over 50 years' failure to rectify the problem of radiologic contamination of the biosphere is negligence; at worst, it is murder. John Sommerville coined the term radioactive omnicide-it stands for murder, not just of people, but of plants, animals, water and soil. Death by a slow, silent, invisible, deadly invader is totally unacceptable. (**0019-11** [Schemanski, Sally])

Comment: I am writing as a citizen to state that I am completely against the idea of nuclear power on our Great Lakes! Stop the blue prints, stop the idea, stop the money flow, begin to look at the future of our children and the byproducts we do not know how to store properly for safety issues. I s the health of our people and water and air quality worth all the big bucks you guys will be making? Can you sleep at night with the karma of destruction on you soul? I am for wind power based on and around the Great Lakes. Nuclear power is too dangerous! (**0020-1** [Biernot, Marilyn])

Comment: Wind and solar power offer no worst case scenario that we can't deal with. Nuclear power is too dangerous, even the regular releases of radiation through water or airborne pathways endangers all (**0031-2** [Rysztak, Robert])

Comment: What are we thinking? Nuclear power is not the solution. (**0047-6** [Bettega, Gayle])

Comment: Thank you for the opportunity to address these comments to you. CCNR believes if the principles of good science and sound economic practices are followed, nuclear power will be seen to be quite far down on the list of energy priorities. It will also become apparent that the negative environmental and security impacts of nuclear power cannot be limited either in space or in time to an acceptable degree -- that is, one which can be successfully managed by the present generation of officials. (**0048-10** [Edwards, Gordon])

Comment: How precious is life? As a mother who has lost her baby. It is unconscionable to expose a population to the risks of nuclear reactors. Once DNA is destroyed there is no return. Whole lineages of families end. Swami Sri Yukteswar authored The Holy Science. Ancient Yogi beliefs recognized the atom long before it was perceived by Western science. It was called the essence of vibratory matter. Without God holding the creation together, atoms would separate, universe explode. Splitting the atom is a destructive force. (**0059-14** [Barnes, Kathryn]; **0083-24** [Barnes, Kathryn])

Comment: Nuclear energy is not a solution; it is a problem in the way of solutions. Uranium is a finite resource and only a small fraction of the waste can be reprocessed. At some point we should learn to reintegrate with a natural environment rather than acting like we own the planet. DTE used to give away incandescent bulbs. Maybe they would be willing to sell compact florescent at cost. If not, you can go down to ACE Hardware. Right now they got them on sale for a buck.

We can lower the baseload as individuals if we look at all the evidence and be a part of the solution. Any politician supporting nuclear energy should lose votes down the road. And remember, one of if not the primary function of the Nuclear Regulatory Commission is the preservation of the Nuclear Regulatory Commission. (**0059-70** [Farris, Mark])

Comment: Governments around the world that are considering construction of new reactors should be advised to defer approval.

III. Call for Moratorium on New Nuclear Plants Until:

There is here, and from many other sources, ample support for a moratorium on new nuclear plants until the following requirements are fulfilled:

1. There are more definitive answers obtainable through more pertinent scientific studies.
2. There are defined, EPA limits on safe radioactive levels in the air, water and soil.
3. There is a need for development of a new group of age-specific reference persons instead of what has been referred to as a reference man in defining the acceptable limits of exposure to radiation among pregnant women, children and other vulnerable groups.

I stand behind these arguments and encourage you to give full acknowledgement of the increased evidence for the need to protect our citizens from the increasing exposure to radiation in our environment. (**0078-2** [Pfeiffer, Jelica B.])

Response: *These comments provide general information in opposition to nuclear power. They do not provide any specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS. Decisions regarding which generation sources and*

alternatives to deploy are made by the applicant and regulatory bodies such as State energy planning agencies. The alternatives must be technically viable, feasible, and competitive. Alternative technologies (including renewable energy such as wind and solar) will be considered in Chapter 9 of the EIS.

2.30 General Comments in Opposition to the Existing Plant

Comment: For years I read about Fermi reactors. What I remember most is that they were and still are dangerous to human life. It is a nuclear power plant. (**0017-1** [Leonard, Dolores])

Comment: Fermi 3? What happened to Fermi 1 and Fermi 2? Anything that is radioactive is not good for any community. (**0017-4** [Leonard, Dolores])

Comment: Fermi 1 underwent a partial meltdown in 1966. This prompted John Fuller's well-documented book We Almost Lost Detroit. The threat of meltdown or high level waste dump, as in the 1970s, are enough to end any interest in Michigan for any more nuclear power. (**0054-1** [Drake, Gerald A.])

Comment: We've heard a lot from many people who have had important benefits from building Fermi 2. Benefits in terms of getting jobs, benefits in terms of the tax base. They look at each other and they say this is the way it worked well in the past. It's coming again, Fermi 3 is coming again. It's the answer again. But, it's the same answer we had before. And when you really look at Michigan today and ask, did the answers that worked in the past really work? Look at where they have gotten us today and think about where they will take us tomorrow. The same thinking is not the best thinking for today. Michigan needs a new vision, a new set of answers; and needs to examine the assumptions that it has worked with in the past.
(**0059-55** [Wolfe, Robert])

Response: *These comments express opposition to the existing Fermi 1 and 2 nuclear plant. They do not provide any specific information relating to the environmental effects of the proposed action and will not be evaluated in the EIS.*

2.31 Comments Concerning Issues Outside Scope – Emergency Preparedness

Comment: After many years of research and much planning it was discovered that the evacuation of the residents in Monroe, Michigan would be impossible in the event of a nuclear accident at the Fermi plant. NO plant should be built in this small residential community. (**0026-1** [Baker, Mildred M])

Comment: Even the evacuation proposals in the event of a serious accident at the plant (ie a meltdown) are very suspect, and questionable. I have been a lifelong resident of the State of Michigan, and have experienced the failure and demise of the other (2) NRC reactors on the shores of Lake Michigan (where waste rods are literally dumped and exposed along the Lakeshore. (**0041-5** [Englund, Lance])

Comment: I live in Frenchtown Charter Township and I am alarmed by the lack of attention in the above cited document to the feasibility of the existing Emergency Evacuation Plan for Fermi II during the construction phase of the proposed Fermi III. (**0042-1** [Kaufman, Hedi])

Comment: My comments center on my reading of Chapter 4, Environmental Impacts of Construction (DTE Energy, Fermi 3 Combined License Application, Part 3: Environmental Report, Revision 0, September 2008). From 4.4.2.4, referring to the Pijawka study: Traffic congestion, however, was found to be a serious problem at most sites. I could find no follow-up or response to this statement, which cites a serious problem to be expected during the construction phase. This apparent lack of response to the serious problem of traffic congestion is a glaring omission in the report. (**0042-2** [Kaufman, Hedi])

Comment: During a construction phase of several years, the report projects a workforce of 2900 workers (4.4.1) who are not expected to re-locate from their current homes, and states that many of these workers will drive 50 miles, and some, up to 70 miles to the worksite. I found no mention of the current Evacuation Plan -- let alone that it will even work with such a large number of vehicles on the road. Those of us who lived here during the construction of Fermi II experienced the high traffic volume on Dixie Highway at shift change times.

There are two main routes from the Fermi site to I-75:

- Fermi Drive via Dixie Highway to Exit 15, a distance of 5 miles, the first two miles two lanes and the last three miles (nearest to I-75) three lanes;
- Fermi Drive to Dixie Highway; Post Road; War Road; Nadeau Road; I-75 Exit 18, a distance of 6 miles along two-lane local and primary roads.

There are other routes extending northeasterly toward the downriver communities of Wayne County. Dixie Highway is the main road into and out of the Fermi site and, in the case of an emergency, would be the main exit route for approximately 10,000 people who live between Dixie Highway and the Lake Erie shoreline as well as several thousand more who live on the opposite side of the highway. I ask that at least the following mitigation measures be taken and that full funding be provided to implement them. A thorough study of all measures necessary to protect the public might indicate the need for further mitigation measures. Minimal mitigation measures:

- widen to three lanes, upgrade and pave the above-cited access routes from the Fermi site to I-75 as well as other routes to points north;
- provide salt storage in the immediate vicinity for Monroe County Road Commission application during snowy and icy weather;
- provide at least two extra Monroe County Road Commission snow plows/salt spreaders, along with operators, to be stationed in the immediate vicinity during winter months to keep routes clear during winter weather;
- provide the Jefferson Schools District with enough buses and drivers to evacuate the entire student population in a single run -- North Elementary School, Jefferson Middle School and Jefferson High School (all less than three miles from the Fermi II site), Sodt Elementary School (~3.5 miles), and Hurd Road Elementary School (within the 5-mile radius);
- provide additional full-time staffing for Monroe County Sheriff coverage for traffic and crowd control in the event of an emergency requiring evacuation. (**0042-3** [Kaufman, Hedi])

Comment: Fermi's emergency evacuation plan is already unworkable, making yet another reactor unacceptable. NRC's ten mile emergency planning zone is arbitrarily small. Hazardous and even deadly radioactivity could extend over a much greater distance. Emergency planning should extend at least 50 miles, and should include the surrounding major population centers of Detroit/Windsor, Toledo, and Ann Arbor. Current evacuation routes are too narrow, and must be expanded to accommodate a mass exodus in the event of a major accident or attack. During severe winter weather, current road clearing capabilities are woefully inadequate and must be upgraded in surrounding areas. The Jefferson public school system, so near Fermi, does not even have an adequate school bus fleet to perform an emergency evacuation. The Jefferson Schools District should be provided with enough buses and drivers to evacuate the entire student population in a single run North Elementary School, Jefferson Middle School and Jefferson High School (all less than three miles from the Fermi II site), Sodt Elementary School (~3.5 miles), and Hurd Road Elementary School (within the 5-mile radius). This egregious emergency preparedness inadequacy must be rectified before Fermi 3 is licensed. Potassium iodide tablets, along with instructions for proper usage, should be distributed regularly within the 50 mile emergency planning zone, as should emergency evacuation plan instructions. (**0050-5** [Kamps, Kevin])

Comment: Throughout the life of Fermi 2 Monroe County has successfully met Federal Emergency Planning requirements. We have the plan and the tools that are mandated to provide such a service. Though these plans have never been needed for a Fermi response, the emergency plan format has been used for other emergency responses such as the ComAir airline accident. According to State emergency officials, our new emergency operation center is one of the best equipped centers in the State of Michigan. In closing, in these economic times we must be courageous to make difficult decisions that will fulfill future needs. We must use what we have learned in the past, and be ready to move into the future. (**0059-3** [Zorn, Dale])

Comment: Will emergency evacuation issues be part of the environmental review? If yes, in what detail? (**0083-28** [Kaufman, Hedi])

Response: *These comments relate to the adequacy of emergency plans, which is a safety issue that is outside the scope of the NRC staff's environmental review. As part of its safety review, which will be documented in the Safety Evaluation Report, the NRC staff will determine, after consultation with the Department of Homeland Security and the Federal Emergency Management Agency, whether the emergency plans submitted by Detroit Edison are acceptable.*

2.32 Comments Concerning Issues Outside Scope – Miscellaneous

Comment: The proponents should also be required to demonstrate their ability to obtain the necessary trained and experienced personnel to carry out the construction work, and what measures will be taken to avoid delays which have plagued the industry worldwide. This is especially important in light of the (so far) $3 billion cost over-runs on the French built AREVA EPR reactor in Finland, and the fact that that project is already 2 years or more behind schedule. (**0048-4** [Edwards, Gordon])

Response: *The comment refers to the ability of Detroit Edison to avoid cost-overruns and schedule delays. The comment does not provide new information related to the environmental effects of the proposed action and will not be evaluated in the EIS.*

Comment: Because we've done it at this time, and we probably won't need the power for maybe as much as or 20 years, it provides us with a couple of things that will absolutely assist us. One will be the fact that we're still on the time line to get the federal tax credits. If we don't take advantage of it -- it's a pot of money that our collective federal taxes have funded, if we don't take advantage of it, others will, and they will spend the money. But the fact of the matter is, because we've put this application in, we've reserved some of that for our own State if we build. (**0058-8** [May, Ron])

Response: *The comment refers to Federal tax credits and to Detroit Edison's desire to obtain those credits for construction of Fermi 3. NRC is not involved in establishing energy policy. Rather, it regulates the nuclear industry to protect the public health and safety and the environment within existing policy. Issues related to the incentives in the Energy Policy Act of 2005 for the development of nuclear power plants are outside of NRC's mission and authority and are not addressed in the EIS. Characterizing financial risks associated with such projects is not within the scope of the NRC environmental review. The comment does not provide new information related to the environmental effects of the proposed action and will not be evaluated in the EIS.*

Comment: Now, I'm going to kind of get off on a tangent. I know we have five minutes and I certainly won't take that. But I know we're always concerned about radiation and the effects and such, but I'm a good example of how it can be used in a positive way. I'm one who had a Stage IV-B Cancer, and indeed I've had 54 radiation treatments. Now, I don't want to get off in making it sound like, you know, radiation is always dangerous. But what I'm saying is that some things can be used in a positive way. Whether it's from a medical perspective or it can be for the energy that's much needed for our country. (**0058-96** [Worrell, Mark])

Response: *The comment refers to the use of radioisotopes for medical and energy generation purposes. The comment does not provide new information relating to environmental effects of the proposed action and will not be evaluated in the EIS.*

Comment: I must tell you that we are excited academically here at the College about the opportunity to train workers to work at the nuclear power plant at Fermi 2. We must tell you also at the same time that our faculty are making the same considerations about the training of workers to replace those who are retiring. Dean Coomar, who is here with us tonight, can attest to the fact that in his first group of students that it's a very rigorous program.

We are honored at the College as a community college to respond to these training needs here in this community. But I must also tell you that we are just as excited about the future potential of training students for green collar jobs, those in wind energy, those in solar power, and those other energy opportunities that we have in the very near future. So on behalf of us here at the College, as I said, we sincerely honor the discussion, the debate, because we will all learn from this, including our students and our future generations, and we can be very proud of those of us who are concerned about the future of Monroe County and the College, of course, is honored to play a small role in that. (**0059-72** [Nixon, Dave])

Response: *The comment refers to academic and training opportunities at the Monroe County Community College. The comment does not provide new information relating to environmental effects of the proposed action and will not be evaluated in the EIS.*

2.33 Comments Concerning Issues Outside Scope – NRC Oversight

Comment: Where in your responsibility as guardians of the People and the Earth do you utilize the Precautionary Principle, proving NO HARM, before approval? (**0004-3** [Carey, Corinne])

Comment: it is my hope that the Nuclear Regulatory Commission will not be unduly interfered with by political pressures. We have a problem of ship ballast not being regulated in the Great Lakes. We have a problem of mega waste from huge farms, from mega farms not being regulated. We have a problem of municipal waste overflow not being regulated. I certainly realize these are not NRC problems. I certainly recognize these are not problems being caused by DTE Energy. However, government regulation of our environment seems to change depending on which political party is in power. It is my hope that the Nuclear Regulatory Commission will remain an independent agency, not unduly affected by who happens to be in power. (**0059-83** [Green, Frank])

Comment: I can honestly state that I am very cynical about any agency or corporation's ability to provide total oversight (**0072-4** [Timmer, Marilyn])

Comment: Health and environmental policies have long observed the precautionary principle - if safety is uncertain, the responsibility falls to the proponent of a project to prove that a project is safe.

The principle developed at the Wingspread Conference in 1998, attended by an international group of scientists, government officials, lawyers, labor leaders and environmentalists formalized and made explicit the precautionary concept adopted by the United Nations in 1992. It asserts that before using a new technology or starting a new activity, there is a duty to take anticipatory action to prevent harm. It also declares that the responsibility for proof of harmlessness rests with the proponent, rather than the public.

Can you, the NRC and DTE assure us that Fermi III will be safe? Can you assure us that the health of the community is not being and will not be compromised by the inevitable release of radioactive contaminants into the air and water? Please do not rush to build an expensive and quite possibly harmful nuclear reactor until all the health issues are studied by independent researchers and the public is informed of any risk. (**0083-17** [Mumaw, Joan])

Response: *NRC takes seriously its responsibility under the Atomic Energy Act of 1954, as amended, to protect the health and safety of the public and to consider the environmental effects of its actions under NEPA in regulating the U.S. nuclear power industry. More information on NRC's roles and responsibilities is available on NRC's website at http://www.nrc.gov/about-nrc.html. The comments did not provide new information relating to environmental effects of the proposed action and will not be evaluated in the EIS.*

2.34 Comments Concerning Issues Outside Scope – Safety

Comment: The Department opposes any expansion of the safety zones for the project. The overall footprint of the proposed project does not differ significantly from that of the current project operation. The Department believes any expansion of the safety zone could lead to a loss of opportunity for activities such as fishing, duck hunting, and bird watching. The COL describes the importance of these socioeconomic values and they should be maintained or enhanced, not reduced. (**0029-10** [Freiburger, Chris])

Comment: A natural draft cooling tower that is 600 feet high and may be shrouded in fog at times, may even with lights, be a threat to planes in the air. There are many airports nearby, including Monroe, Toledo, Windsor, Willow Run, and Detroit Metro. An airliner colliding with this tower could potentially do great damage to either Fermi 1 or Fermi 2. A serious accident at either plant could compromise the ability of staff to operate the non- problematic reactor. (**0051-4** [Cumbow, Kay])

Comment: I am also concerned about the safety of normal operations at nuclear facilities. The regular release of radioactive air, soil, and water that are part of the safety maintenance of the plant -- i.e. pressure releases and cleansing -- may or may not be safe for people who are exposed to it every day. Although the amounts of radioactive air and water released is a level considered "acceptable" radiation by the NRC, it is not necessarily "safe". (**0053-2** [Nordness, Dorothy])

Comment: I read an alarming report from the Union of Concerned Scientists, a group motivated by scientific integrity and not profit, and that promotes policies that will effectively protect our health, safety, and environment. The report is entitled "Two Decades of Missed Opportunities at Fermi Unit 2". To summarize the findings of the report, starting sometime in 1986, workers at the Fermi Unit 2 reactor who were responsible for testing a major safety system, did so using the wrong answer "key". For roughly 2 decades -- twenty years -- the system that was not being correctly tested was one that reacts to interruptions in electricity and signals the onsite emergency systems to start in order to protect the reactor core from damage. Should this safety system not work, Fermi 2 would need to be shut down within 12 hours to avoid causing a breakdown that would expose the public to undue risk. Although for 20 years the safety system was repeatedly given a passing grade, this did not indicate that it would actually have worked properly if needed. And for all those years neither Detroit Edison nor the NRC discovered and corrected this problem. This was not an error by one person, but by many people making many mistakes for many years. This should never have happened, but it did -- approximately 35 miles from where I live. (**0053-3** [Nordness, Dorothy])

Comment: I don't have any concerns about safety of a new Fermi. Safety standards have been established. Detroit Edison has an established record. Procedures are established to make sure that that safety is in place. (**0058-93** [Worrell, Mark])

Comment: It has to do with safety concerning something at Davis Besse. She's concerned. How can this type of a problem be dealt with in the future? It has to do with an Ohio jury convicting a former nuclear plant engineer of misleading regulators about the worst corrosion ever found at a US reactor. So along Lake Erie it could cause a shutdown. They're prosecuting a guy, a worker, for lying so that the Davis Besse plant could delay a shutdown for a safety inspection. Months later, inspectors found an acid leak that almost ate through the reactor's 6-inch thick steel cap. The guy was convicted in a Toledo court of concealing material information and faces up to five years in prison. She was concerned, how can this safety problem be dealt with in the future. (**0059-25** [Mantai, Frank])

Comment: The assessment must address the potential for catastrophic failure, due to operational error, terrorist attack, design flaws, structural failure, or other causes. (**0059-50** [Wolfe, Janet]; **0083-4** [Wolfe, Janet])

Comment: An August 27th USA Today article only reinforces my many concerns. According to the article, federal prosecutors found Andrew Siemaskzo guilty of lying in 2001 so the Davis-

Besse plant along Lake Erie could delay a shutdown for a safety inspection. Months later inspectors found an acid leak that almost ate through the reactor's 6-inch-thick steel cap. (**0072-3** [Timmer, Marilyn])

Response: *The issues raised in these comments are related to safety matters that are outside the scope of the environmental review and will not be addressed in the EIS. A safety analysis report was provided as part of the COL application. The NRC staff is developing a safety evaluation report that analyzes all aspects of reactor and operational safety.*

2.35 Comments Concerning Issues Outside Scope – Security and Terrorism

Comment: Can the proposed Fermi 3 plant be save from a terrorist attack ? (**0002-1** [Schwartz, R.])

Comment: What about accidents or terrorism? (**0047-3** [Bettega, Gayle])

Comment: The proponent should be required to examine how the large-scale use of nuclear power in the world, as foreseen by the apostles of the nuclear renaissance, can possibly be carried out without greatly exacerbating the problem of access to nuclear technology and nuclear materials that can be used to make weapons of mass destruction. In particular, the fact that present and foreseeable reactor designs require either uranium enrichment or the breeding of man-made weapons-usable fissile materials such as plutonium or uranium-233 means that no country can be energy self-sufficient in nuclear power without having access to weapons-usable materials and technology. The proponent should be asked to explore the question of how one can promote the widespread use of peaceful nuclear power technology without anticipating the further proliferation of nuclear weapons, especially when the USA, Russia, France, Britain, and China have not lived up to their legal and treaty obligations to eliminate their own nuclear arsenals, and several countries who have illicitly developed nuclear weapons -- Israel, India, and Pakistan -- far from being treated as inter- national pariahs, are treated as important allies of the USA. This sends a very dangerous message to the rest of the world. In addition, the favourable status now awarded to India, without requiring her to even sign the Non-Proliferation Treaty, may sound the death-knell to that important document. The message seems to be that once a country has developed its own nuclear weapons, all will be forgiven and normal or even favored relations will prevail.

In a nuclear-armed world, nuclear war becomes just a matter of time. To ignore the devastating impact of all this -- weapons proliferation and eventual nuclear warfare, even if conducted half-way around the globe -- on the continent of North America and the world is folly. The same computerized models that have been used to predict carbon dioxide buildup in the atmosphere have also been used to show that a nuclear war between India and Pakistan (for example) would be sufficient to cause dramatic climate changes in the entire Northern Hemisphere in a very short time.

The proponent should be required to assert categorically whether the fuel from this reactor will or will not be available in the future for possible reprocessing. Moreover, the environmental impacts of reprocessing must be considered as well as the proliferation risks associated with the legitimization of reprocessing as a normal part of the nuclear fuel chain. (**0048-8** [Edwards, Gordon])

Comment: Given the inherent vulnerability of Fermi 3 to terrorist attack, efficiency and renewables are more protective and secure energy choices. Fermi is located midway between the major population centers in the Detroit/Windsor and Toledo metro areas. It is on the shore of Lake Erie, upstream of the drinking water supply for tens of millions in the U.S. and Canada. Fermi 2's reactor and on-site wastes are already at risk of terrorism. Fermi 3 would effectively double these risks of attack. As with accidents, a malicious large-scale radiological release from Fermi 3 would result in countless casualties and unimaginable property damages downwind and downstream, not to mention catastrophic ecological havoc. (**0050-4** [Kamps, Kevin])

Comment: Homeland Security has guised a lot of the issues. I don't know how to word it correctly, but there's a firing range over there now that was not there when we moved in. It shoots from early in the morning until late in the evening. It's unacceptable.

The mile radius around there, as a charter captain they've taken my area of Lake, your area of Lake, away from you. I think that needs to be addressed. (**0058-133** [Dyson, Ed])

Comment: Nuclear reactors are linked to plutonium production, which is used to make atom bombs. By their mere existence nuclear reactors post a continual terrorist threat, and destabilize world peace efforts. There is no way to make them terrorist target free. It is to the credit of the NRC that they have recently been more vigilant to the security factor and have terminated security people who have not been doing their jobs, and also began a program to track radioactive materials or loose nukes. However, efforts may come too late and threats go far beyond conceivable scope.

This is also an environmental issue because if a terrorist action occurs, environmental contamination will ensure. To locate a nuclear reactor near a large population is to risk the lives of those people because of the possibility of a major nuclear accident or terrorist strike. To force people to live in the shadow of their demise is a crime. (**0059-15** [Barnes, Kathryn]; **0083-25** [Barnes, Kathryn])

Comment: And the byproduct of these preprocessing plants is plutonium, weapons grade plutonium. I believe in my notes I had a figure of 30,000 tons of plutonium were being stored at this site, where only a few pounds are needed for a nuclear weapon. When I grew up I used to be worried about nuclear weapons -- we worried about the bomb. That's all I can say. Some of you probably felt the same way. Kids nowadays don't worry about the bomb, they worry about AIDS, they worry about global warming. They've got enough to worry about. They've been relatively safe, safer than we felt. They feel safer about that than we felt. But with proliferation of plutonium of weapons grade plutonium existing, the problem of nuclear weapons hasn't gone away. It may even be greater than it was before. (**0059-45** [Kaufman, Hedwig])

Comment: Today the threats of terrorism on American soil and a nuclear proliferation make nuclear power plants a major threat to the security to America and her people. (**0059-60** [Wolfe, Robert])

Comment: The Environmental Impact should assess the risk of an attack on the power plants in the area and the impacts on the water and the population. What is a fair level of risk from so many power plants to the water and population? How much power does this area need to generate to serve the population and businesses in Southeast Michigan and Northwest Ohio? Is there a point where the area is saturated with power plants and additional power plants should be located elsewhere? (**0082-16** [Bihn, Sandy])

Response: *These comments are related to security and terrorism, which are safety issues that are not within the scope of the NRC staff's environmental review. These issues are regulated under 10 CFR Part 73, "Physical Protection of Plants and Materials." The NRC staff is devoting substantial time and attention to terrorism-related matters, including coordination with the Department of Homeland Security. As part of its mission to protect public health and safety and the common defense and security pursuant to the Atomic Energy Act of 1954, as amended, the NRC staff is conducting vulnerability assessments for the domestic utilization of radioactive material. In the time since September 11, 2001, the NRC staff has identified the need for license holders to implement compensatory measures and has issued several orders to license holders imposing enhanced security requirements. Finally, the NRC staff has taken actions to ensure that applicants and license holders maintain vigilance and a high degree of security awareness. Consequently, the NRC staff will continue to consider measures to prevent and mitigate the consequences of acts of terrorism in fulfilling its safety mission. Additional information about the NRC staff's actions regarding physical security since September 11, 2001, can be found on NRC's public website (http://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0314/).*