January 31, 2001

Mr. William O'Connor, Jr. Vice President Nuclear Generation Detroit Edison Company 6400 North Dixie Highway Newport, MI 48166

SUBJECT: FERMI 2 NUCLEAR POWER PLANT - NRC INSPECTION REPORT 50-341/01-04(DRS)

Dear Mr. O'Connor:

On January 12, 2001, the NRC completed a baseline inspection at your Fermi 2 Nuclear Power Plant. The enclosed report presents the results of that inspection. The results of this inspection were discussed on January 12, 2001, with Mr. R. Libra, Technical Manager, and members of your staff.

The inspection was an examination of activities conducted under your license as they relate to radiation safety and to compliance with the Commission's rules and regulations and the conditions of your license. Within these areas the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel. Specifically, this inspection focused on aspects of Public Radiation Safety.

Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

/RA/

Gary L. Shear, Chief Plant Support Branch Division of Reactor Safety

Docket No. 50-341 License No. NPF-43

Enclosure: Inspection Report 50-341/01-04(DRS)

See Attached Distribution

W. O'Conner

cc w/encl: N. Peterson, Director, Nuclear Licensing P. Marquardt, Corporate Legal Department Compliance Supervisor R. Whale, Michigan Public Service Commission Michigan Department of Environmental Quality Monroe County, Emergency Management Division Emergency Management Division MI Department of State Police Mr. William O'Connor, Jr. Vice President Nuclear Generation Detroit Edison Company 6400 North Dixie Highway Newport, MI 48166

SUBJECT: FERMI 2 NUCLEAR POWER PLANT - NRC INSPECTION REPORT 50-341/01-04(DRS)

Dear Mr. O'Connor:

On January 12, 2001, the NRC completed a baseline inspection at your Fermi 2 Nuclear Power Plant. The enclosed report presents the results of that inspection. The results of this inspection were discussed on January 12, 2001, with Mr. R. Libra, Technical Manager, and members of your staff.

The inspection was an examination of activities conducted under your license as they relate to radiation safety and to compliance with the Commission's rules and regulations and the conditions of your license. Within these areas the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel. Specifically, this inspection focused on aspects of Public Radiation Safety.

Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

We will gladly discuss any questions you have concerning this inspection.

Sincerely, /RA/ Gary L. Shear, Chief Plant Support Branch Division of Reactor Safety

Docket No. 50-341 License No. NPF-43

Enclosure: Inspection Report 50-341/01-04(DRS)

See Attached Distribution

OFFICE	RIII	RIII	RIII	
NAME	GShear for MMitchell:jb/sd	MRing	GShear	
DATE	01/31/01	02/01/01	01/31/01	

DOCUMENT NAME: FER01-04DRS.WPD

OFFICIAL RECORD COPY

W. O'Conner

cc w/encl: N. Peterson, Director, Nuclear Licensing P. Marquardt, Corporate Legal Department Compliance Supervisor R. Whale, Michigan Public Service Commission Michigan Department of Environmental Quality Monroe County, Emergency Management Division Emergency Management Division MI Department of State Police

ADAMS Distribution: CAC DFT MAS4 (Project Mgr.) J. Caldwell, RIII B. Clayton, RIII SRI Fermi C. Ariano (hard copy) DRP DRSIII PLB1 JRK1 BAH3

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: License No:	50-341 NPF-43
Report No:	50-341/01-04(DRS)
Licensee:	Detroit Edison Company
Facility:	Enrico Fermi, Unit 2
Location:	6400 N. Dixie Highway Newport, MI 48166
Dates:	January 8 - 12, 2001
Inspectors:	M. Mitchell, Radiation Specialist
Approved by:	Gary L. Shear, Chief, Plant Support Branch Division of Reactor Safety

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas) reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety

Radiation Safety

Safeguards

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness
- Occupational
 Public
- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.

SUMMARY OF FINDINGS

IR 05000341-01-04(DRS), on 01/8-01/12/01, Detroit Edison Company, Fermi 2 Nuclear Plant. Radiation Specialist report.

The inspection was conducted by a regional radiation specialist. No findings of significance were identified.

Report Details

Summary of Plant Status: Unit 2 was at or near full power during the inspection period.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control

.1 Plant Walkdowns and Radiological Boundary Verifications

a. Inspection Scope

The inspector conducted walkdowns of the radiologically restricted area (RRA) to verify the adequacy of radiological boundaries and postings. Specifically, the inspector walked down several radiologically significant work area boundaries (high and locked-high radiation areas) in the Auxiliary and On-site Storage Buildings.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

- 2PS2 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems
- .1 Offsite Dose Calculation Manual (ODCM)
- a. Inspection Scope

The inspector reviewed the 1999 Annual Radioactive Effluent Release and Radiological Environmental Operation Report to verify that the effluent program was implemented as described in the Updated Final Safety Analysis Report (UFSAR) and the Offsite Dose Calculation Manual (ODCM). The inspector reviewed Revisions 12, 13 and 14 to the ODCM to assure that radioactive waste system design and operation was consistent with the UFSAR and ODCM.

b. Findings

No findings of significance were identified.

.2 <u>Gaseous and Liquid Release Systems Walkdowns</u>

a. Inspection Scope

The inspector performed walkdowns of the major components of the gaseous release system (e.g., radiation and flow monitors) to verify that the current system configuration was as described in the UFSAR and the ODCM, and to observe ongoing activities and equipment material condition. The planning and removal of the OSB Machine Shop Process Monitor Systems Particulate Iodine Noble Gas (SPING) Unit was reviewed to assess any effect on the effluent monitoring program.

b. Findings

No findings of significance were identified.

.3 Gaseous and Liquid Release

a. Inspection Scope

Since there were no liquid or gaseous batch releases during the inspection period, the inspector reviewed the staff assessment and analysis of a containment purge radioactive gaseous release, including the projected doses to members of the public, to verify that appropriate treatment equipment was used and that the radioactive gaseous effluents were processed and released in accordance with ODCM requirements.

b. Findings

No findings of significance were identified.

.4 Changes to the ODCM

a. Inspection Scope

The inspector reviewed changes made by the licensee to the ODCM (Revisions 12, 13, and 14) as well as to the liquid or gaseous radioactive waste system design, procedures, or operation since the last inspection. For each ODCM revision that impacted effluent monitoring or release controls, the inspector reviewed the licensee's technical justifications for the changes and determined if the changes were made in accordance with the requirements of the Technical Specifications.

b. Findings

No findings of significance were identified.

.5 Dose Calculations

a. Inspection Scope

The inspector reviewed a selection of monthly, quarterly, and annual dose calculations to ensure that the licensee had properly calculated the offsite dose from radiological effluent releases and to determine if any annual Technical Specifications or ODCM limits (i.e., Appendix I to 10 CFR Part 50 values) were exceeded.

b. <u>Findings</u>

No findings of significance were identified.

- .6 <u>Air Cleaning Systems</u>
- a. Inspection Scope

The inspector reviewed selected air cleaning system surveillance test results to ensure that test results are within the licensee's acceptance criteria. The inspector reviewed surveillance test results for the stack and vent flow rates to verify that the flow rates and periodicity of testing were consistent with UFSAR values.

b. Findings

No findings of significance were identified.

- .7 Effluent Monitor Calibrations
- a. <u>Inspection Scope</u>

The inspector reviewed selected records of instrument calibrations performed since the last inspection for each point of discharge effluent radiation monitor. The inspector reviewed completed system modifications and the current effluent radiation monitor alarm setpoint values to assess compliance with ODCM requirements.

b. Findings

No findings of significance were identified.

- .8 Interlaboratory Comparison Program
- a. Inspection Scope

The inspector reviewed the results of the 1999 interlaboratory comparison program as reported in the 1999 Annual Radioactive Effluent Release and Radiological Environmental Operation Report, to verify the quality of radioactive effluent sample analyses performed by the licensee. The inspector reviewed the licensee's quality control evaluation of the interlaboratory comparison for any associated corrective actions.

b. Findings

No findings of significance were identified.

.9 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed selected years 1999 to 2001 licensee quality assurance audits and radiation protection department self-assessments used to evaluate the selfassessment process and to identify, characterize and prioritize problems. Further, the inspector verified that radiological effluent issues were adequately addressed. The inspector also reviewed year 2000 Condition Assessment Resolution Documents (CARDs) that addressed radioactive effluent treatment and monitoring program deficiencies. The review was conducted to verify that the licensee had effectively implemented the corrective action program.

b. Findings

No findings of significance were identified.

- 2PS3 Radiological Environmental Monitoring Program
- a. Inspection Scope

The inspector reviewed the meteorological program to assure that the instruments were operable, calibrated, and maintained in accordance with guidance contained in the UFSAR, NRC Safety Guide 23 and licensee procedures. Additionally, the inspector reviewed the meteorological instrument building change-over to a newly constructed building. The inspector also accompanied licensee staff during field particulate and iodine sample collection to assess compliance with station procedure and operability of off-site equipment used in environmental monitoring.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA6 Management Meetings

Exit Meeting Summary

The inspector presented the inspection results to Mr. Libra, and other members of licensee management and staff, in an exit meeting on January 12, 2001. The licensee acknowledged the information and findings presented. No proprietary information was identified by the licensee.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

- H. Arora, Licensing Engineer
- B. Bertossi, Instrument Maintenance
- J. Boswyak, System Engineer
- J. Bragg, Nuclear Quality Assurance
- P. Fessler, Plant Manager
- D. Gnaedinger, Nuclear Quality Assurance
- M. Himebauch, System Engineer
- D. Jax, System Engineer
- R. Johnson, Nuclear Licensing Engineer
- D. Keskitalo, System Engineer
- E. Kokosky, Radiation Protection Manager
- T. Lashley, Radiation Protection Engineer
- R. Libra, Technical Manager
- J. Pendergast, Nuclear Licensing Engineer
- N. Peterson, Director Nuclear Licensing
- J. Priest, Nuclear Quality Assurance
- S. Stasek, Nuclear Assessment
- T. VanderMay, Radiation Protection Engineer
- D. Williams, Assistant Radiation Protection Manager

NRC

S. Campbell

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Opened</u>

None

<u>Closed</u>

None

Discussed

None

LIST OF ACRONYMS USED

ADAMS ALARA	Agency-wide Document Access and Management System As-Low-As-Is-Reasonably-Achievable
CFR	Code of Federal Regulations
CARD	Condition Assessment Resolution Documents
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation
PARS	Publically Available Records
PDR	Public Document Room
RRA	Radiologically Restricted Area
RWP	Radiation Work Permit
SPING	Systems Particulate Iodine Noble Gas
UFSAR	Updated Final Safety Analysis Report

LIST OF DOCUMENTS REVIEWED

PROCEDURES

67-1009 (Revision 0), Eberline SPING Radiation Monitoring General Sampling
MRP-04 (Revision 8), Access and Working in the Radiologically Restricted Area (RRA)
PTP 35.318.017 (Revision 33), Inspection and Testing of Multi-Contact Auxiliary Relays
PTP 43.404.001 (Revision 30), Division 1 SGTS Filter Performance Test and Charcoal Sampling
PTP 45.614.008 (Revision 2) Meteorological Monitoring-Primary System Maintenance
PTP 45.614.009 (Revision 1) Meteorological Monitoring-Secondary System Maintenance
PTP-62.000.205 (Revision 3), Airborne Particulate and Iodine Sampling Using Model DL-1
Digital Low Volume Air Sampler

PTP 64.080.204 (Revision 9), Standby Gas Treatment Exhaust Process Radiation Monitoring System Calibration, Division 2

PTP 64.080.601 (Revision 12) Source Checks for Liquid and Gaseous Radiation Monitors SE 96-0004 (Revision 0), Abandon/Removal of OSB Machine Shop Process Monitor SPING Unit

DOCUMENTS AND REPORTS

Fermi 2 - 1999 Annual Radioactive Effluent Release and Radiological Environmental Operation Report

Offsite Dose Calculation Manual (ODCM) (Revisions 12, 13, and 14) Results of Radiochemistry Cross Check Program 3rd Quarter 2000 System Health Report for D-4000, Meteorological Monitoring System, 4th Quarter of 2000 Surveillance Documents for ODCM Monthly and Quarterly Calculations in 1999 and 2000 UFSAR - Chapter 11 (Revision 9) UFSAR - Chapter 12 (Revision 8)

WORK REQUESTS AND RWPs

Work Request 000Z992772, Relocate Primary Climatronics Equipment to New Met Equipment Shelter

- Work Request 000Z992771, Relocate Secondary Climatronics Equipment to New Met Equipment Shelter
- Work Request D975000100, Replace/Recal Meteorological System Instruments (Primary) 10 and 60 Meters
- Work Request D976000100, Replace/Recal Meteorological System Instruments (Secondary) 10 and 60 Meters
- Work Request D975000200, Speed Element: Meteorological Monitoring Wind Speed Sensor (Primary) 60 Meters
- Work Request D976000200, Speed Element: Meteorological Monitoring Wind Speed Sensor (Secondary) 60 Meters

RWP 01-1009 (Revision 0), General Tours

CONDITION ASSESSMENT RESOLUTION DOCUMENTS (CARD)

CARD 99-10933, CARD 99-10934, CARD 99-11717, CARD 99-11757, CARD 99-12595, CARD 99-13478, CARD 99-16101, CARD 99-16467, CARD 00-10745, CARD 00-10973, CARD 00-11134, CARD 00-11268, CARD 00-12298, CARD 00-15288, CARD 00-18753, CARD 00-18857, CARD 00-19654, CARD 00-19665, CARD 00-19757, CARD 00-19803, CARD 00-20701, CARD 00-21150, CARD 01-11111, CARD 01-12134