

Detroit Edison



April 16, 2002
NRC-02-0013

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington D C 20555

Reference: Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43

Subject: 2001 Annual Reports for Fermi 2

The Fermi 2 Technical Specifications (TS) contain requirements for submitting a report for occupational radiation exposure (Technical Specification 5.6.1) and safety relief valve challenges (Technical Specification 5.6.6). Enclosures A and B are provided in accordance with Technical Specification 5.6.1 and 5.6.6 to meet these requirements.

Enclosure C is attached and contains a report on service life of the main steam bypass line. This satisfies the commitment stated in a Detroit Edison letter to the NRC dated November 7, 1986 (VP-86-0154).

Enclosure D is attached in accordance with 10 CFR 50.46(a)(3)(ii) and contains a report on Emergency Core Cooling System (ECCS) cooling performance evaluation model changes or errors.

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Should you have any questions or require additional information, please contact me at (734) 586-4258.

Sincerely,

A handwritten signature in black ink, appearing to read 'N.K. Peterson', with a long horizontal flourish extending to the right.

Norman K. Peterson
Manager - Nuclear Licensing

Enclosure A: Occupational Radiation Exposure Report
Enclosure B: Safety Relief Valve Challenge Report
Enclosure C: Service Life of Main Steam Bypass Line
Enclosure D: ECCS Cooling Performance Evaluation Model Changes or Errors

cc: T. J. Kim
M. A. Ring
NRC Resident Office
Regional Administrator, Region III
Supervisor, Electric Operators,
Michigan Public Service Commission

FERMI 2
OCCUPATIONAL RADIATION EXPOSURE REPORT
JANUARY 1 - DECEMBER 31, 2001

DETROIT EDISON COMPANY
NRC DOCKET NO. 50-341
FACILITY OPERATING LICENSE NO. NPF-43

**Detroit Edison Fermi 2
 2001 Regulatory Guide 1.16 Secondary Dosimeter Deep Dose Equivalent (DDE) Dose Report**

Function	Department	Personnel Receiving Exposure			DDE Manrem		
		Station Employees	Utility Employees	Contract Workers	Station Employees	Utility Employees	Contract Workers
Reactor Operations & Surveillance	Maintenance	169	72	273	11.371	0.445	22.989
	Operations	134	5	72	12.567	0.299	8.059
	Health Physics	61	5	53	9.938	0.045	5.785
	Supervisory	179	65	261	6.326	0.036	7.811
	Engineering	143	14	74	3.083	0.062	4.937
Routine Maintenance	Maintenance	22	11	226	3.617	0.160	26.855
	Operations	0	0	1	0.000	0.000	0.191
	Health Physics	0	0	1	0.000	0.000	0.047
	Supervisory	0	2	33	0.000	0.005	6.991
	Engineering	3	0	4	0.345	0.000	1.513
Inservice Inspection	Maintenance	0	0	8	0.000	0.000	2.056
	Operations	0	0	0	0.000	0.000	0.000
	Health Physics	0	0	0	0.000	0.000	0.000
	Supervisory	3	0	2	0.131	0.000	0.475
	Engineering	0	1	7	0.000	0.188	1.744
Special Maintenance	Maintenance	2	1	27	0.197	0.985	2.182
	Operations	0	0	1	0.000	0.000	0.118
	Health Physics	0	0	0	0.000	0.000	0.000
	Supervisory	1	1	14	0.001	0.008	4.134
	Engineering	0	0	0	0.000	0.000	0.000
Waste Processing	Maintenance	0	0	0	0.000	0.000	0.000
	Operations	3	0	21	0.123	0.000	2.150
	Health Physics	0	0	0	0.000	0.000	0.000
	Supervisory	0	0	1	0.000	0.000	0.064
	Engineering	0	0	0	0.000	0.000	0.000
Refueling	Maintenance	0	20	20	0.000	0.005	2.256
	Operations	0	0	7	0.000	0.000	1.172
	Health Physics	0	0	6	0.000	0.000	0.849
	Supervisory	1	2	34	0.005	0.000	6.616
	Engineering	1	0	7	0.006	0.000	2.948
Total	Maintenance	193	104	554	15.185	1.595	56.338
	Operations	137	5	102	12.690	0.299	11.690
	Health Physics	61	5	60	9.938	0.045	6.681
	Supervisory	184	70	345	6.463	0.049	26.091
	Engineering	147	15	92	3.434	0.250	11.142
Grand Total		Personnel 2074		Manrem 161.890			

NOTE: This report was produced using only secondary external dosimetry - it does not include any internal exposure.

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SAFETY RELIEF VALVE CHALLENGE REPORT

JANUARY 1 - DECEMBER 31, 2001

DETROIT EDISON COMPANY

NRC DOCKET NO. 50-341

FACILITY OPERATING LICENSE NO. NPF-43

Safety Relief Valve Challenges

There were no instances in 2001 where reactor pressure was high enough to require Safety Relief Valve (SRV) actuation. There were no instances in 2001 where an SRV actuation was demanded by an automatic logic system. SRVs were manually actuated in 2001 for surveillance/post-maintenance testing following the Eighth Refueling Outage (RFO8) as described below:

<u>Date</u>	<u>Affected SRV</u>	<u>Comments</u>
11/29/01	All	Surveillance Testing/Post Maintenance Testing Following 2001 Refuel Outage. All SRVs lifted on demand.

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SERVICE LIFE OF MAIN STEAM BYPASS LINE

JANUARY 1 - DECEMBER 31, 2001

DETROIT EDISON COMPANY

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Service Life of Main Steam Bypass Line

In accordance with a Detroit Edison letter to the NRC dated November 7, 1986 (VP-86-0154), the cumulative time the main steam bypass lines are operated with the bypass valves between 30 percent and 45 percent open will be reported annually. A cumulative value of 100 days is not to be exceeded without prior NRC notification.

Evaluations performed by Stone and Webster and by Hopper and Associates concluded that the bypass lines are acceptable for safe operation when operated within the 100 day constraint. Based on these evaluations, the new main steam bypass piping that was installed in 1985 has a service life that will allow it to function for the life of the plant under anticipated operating conditions. The main steam bypass lines cumulative usage was 38.51 days as of December 31, 2001.

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ECCS COOLING PERFORMANCE EVALUATION MODEL CHANGES OR ERRORS

JANUARY 1 - DECEMBER 31, 2001

DETROIT EDISON COMPANY

NRC DOCKET NO. 50-341

FACILITY OPERATING LICENSE NO. NPF-43

ECCS Cooling Performance Evaluation Model Changes or Errors

Two errors have been identified since last year's annual report. These errors were reported to the NRC in Detroit Edison Letter NRC-01-0046 dated June 7, 2001. A description of the two errors follows:

On May 8 and 10, 2001, Global Nuclear Fuel (GNF) informed Detroit Edison, in General Electric (GE) 10 CFR 50.46 Notification Letters 2001-01 and 2001-02, of two errors found in GE's SAFER/GESTR-LOCA code. Both of these errors involve a miscalculation of the amount of steam condensation on subcooled ECCS injection flow inside the vessel. These errors in steam condensation affect core inventory and the Peak Clad Temperature (PCT) that occurs after ECCS initiation. The total effect of the two errors results in an increase in the PCT by 50 degrees Fahrenheit. With the 50 degree Fahrenheit increase in PCT, the current Licensing Basis PCT for Fermi 2 is 1712 degrees Fahrenheit and there still is 488 degrees Fahrenheit margin to the 2200 degrees Fahrenheit Licensing Basis PCT limit.

The licensing basis remains as reported to the NRC in Detroit Edison Letter NRC-01-0046, dated June 7, 2001.