

October 18, 1993

Docket No. 50-341

Mr. Douglas R. Gipson
Senior Vice President
Nuclear Generation
Detroit Edison Company
6400 North Dixie Highway
Newport, Michigan 48166

Dear Mr. Gipson:

SUBJECT: FERMI-2 - ISSUANCE OF AMENDMENT RE: IMPLEMENTATION OF THE REVISED
10 CFR PART 20 (TAC NO. M87107)

The Commission has issued the enclosed Amendment No. 93 to Facility Operating License No. NPF-43 for the Fermi-2 facility. The amendment consists of changes to the Technical Specifications (TS) and associated Bases in response to your letter dated July 29, 1993.

The amendment revises the TS definitions and radiation protection limits in order to implement the revised 10 CFR Part 20, "Standards for Protection Against Radiation."

We note that a change was inadvertently included in your proposed TS page 1-3 for the "LOGIC SYSTEM FUNCTIONAL TEST" definition. As discussed with your staff, this was not meant to be included as part of this application and therefore, was not reviewed.

A copy of our Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by

Timothy G. Colburn, Sr. Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 93 to NPF-43
2. Safety Evaluation

cc w/enclosures:
See next page

OFFICE	LA:PD31	PM:PD31 <i>Fee</i>	BC:PRPB <i>ME</i>	OGC	(A)D:PD31
NAME	CJamerson <i>CJ</i>	TColburn:jkd	LCunningham	<i>Sutton</i>	WDean <i>WDean</i>
DATE	9/24/93	9/24/93	9/29/93	10/6/93	10/13/93

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Mr. Douglas R. Gipson
Detroit Edison Company

Fermi-2

cc:

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DATED: October 18, 1993

AMENDMENT NO. 93 TO FACILITY OPERATING LICENSE NO. NPF-43-FERMI-2

Docket File

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210021



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DETROIT EDISON COMPANY

DOCKET NO. 50-341

FERMI-2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 93
License No. NPF-43

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Detroit Edison Company (the licensee) dated July 29, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. NPF-43 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 93 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. DECo shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance with full implementation within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



William M. Dean, Acting Director
Project Directorate III-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 18, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 93

FACILITY OPERATING LICENSE NO. NPF-43

DOCKET NO. 50-341

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

REMOVE

1-3
1-7
B 3/4 11-2
6-16
6-16a
6-17
6-21
6-22
6-22a
6-23
6-24

INSERT

1-3
1-7
B 3/4 11-2
6-16
6-16a
6-17
6-21
6-22
6-22a
6-23
6-24

DEFINITIONS

FREQUENCY NOTATION

1.14 The FREQUENCY NOTATION specified for the performance of Surveillance Requirements shall correspond to the intervals defined in Table 1.1.

IDENTIFIED LEAKAGE

1.15 IDENTIFIED LEAKAGE shall be:

- a. Leakage into collection systems, such as pump seal or valve packing leaks, that is captured and conducted to a sump or collecting tank, or
- b. Leakage into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of the leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE.

ISOLATION SYSTEM RESPONSE TIME

1.16 The ISOLATION SYSTEM RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its isolation actuation setpoint at the channel sensor until the isolation valves travel to their required positions. Times shall include diesel generator starting and sequence loading delays where applicable. The response time may be measured by any series of sequential, overlapping or total steps such that the entire response time is measured.

LIMITING CONTROL ROD PATTERN

1.17 A LIMITING CONTROL ROD PATTERN shall be a pattern which results in the core being on a thermal hydraulic limit, i.e., operating on a limiting value for APLHGR, LHGR, or MCPR.

LINEAR HEAT GENERATION RATE

1.18 LINEAR HEAT GENERATION RATE (LHGR) shall be the heat generation per unit length of fuel rod. It is the integral of the heat flux over the heat transfer area associated with the unit length.

LOGIC SYSTEM FUNCTIONAL TEST

1.19 A LOGIC SYSTEM FUNCTIONAL TEST shall be a test of all logic components, i.e., all relays and contacts, all trip units, solid state logic elements, etc., of a logic circuit, from sensor through and including the actuated device, to verify OPERABILITY. The LOGIC SYSTEM FUNCTIONAL TEST may be performed by any series of sequential, overlapping or total system steps such that the entire logic system is tested.

MAXIMUM FRACTION OF LIMITING POWER DENSITY

1.20 The MAXIMUM FRACTION OF LIMITING POWER DENSITY (MFLPD) shall be the highest value of the FLPD which exists in the core.

MEMBER(S) OF THE PUBLIC

1.21 MEMBER(S) OF THE PUBLIC shall be an individual in a controlled or UNRESTRICTED AREA. However, an individual is not a MEMBER OF THE PUBLIC during any period in which the individual receives an occupational dose.

DEFINITIONS

1.39 DELETED

SOURCE CHECK

1.40 A SOURCE CHECK shall be the qualitative assessment of channel response when the channel sensor is exposed to a radioactive source.

STAGGERED TEST BASIS

1.41 A STAGGERED TEST BASIS shall consist of:

- a. A test schedule for n systems, subsystems, trains or other designated components obtained by dividing the specified test interval into n equal subintervals.
- b. The testing of one system, subsystem, train or other designated component at the beginning of each subinterval.

THERMAL POWER

1.42 THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

TURBINE BYPASS SYSTEM RESPONSE TIME

1.43 The TURBINE BYPASS SYSTEM RESPONSE TIME shall be that time interval from when the turbine bypass control unit generates a turbine bypass valve flow signal until the turbine bypass valves travel to their required positions. The response time may be measured by any series of sequential, overlapping or total steps such that the entire response time is measured.

UNIDENTIFIED LEAKAGE

1.44 UNIDENTIFIED LEAKAGE shall be all leakage which is not IDENTIFIED LEAKAGE.

UNRESTRICTED AREA

1.45 An UNRESTRICTED AREA shall be any area, access to which is neither limited nor controlled by the licensee.

RADIOACTIVE EFFLUENTS

BASES

3/4.11.1 LIQUID EFFLUENTS

3/4.11.1.4 LIQUID HOLDUP TANKS

The tanks listed in this specification include all those outdoor radwaste tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and that do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system.

Restricting the quantity of radioactive material contained in the specified tanks provides assurance that in the event of an uncontrolled release of the tanks' contents, the resulting concentrations would be less than the limits of 10 CFR Part 20, Appendix B, Table 2, Column 2, at the nearest potable water supply and the nearest surface water supply in an UNRESTRICTED AREA.

ADMINISTRATIVE CONTROLS

PROCEDURES AND PROGRAMS (Continued)

1. Training of personnel,
2. Procedures for monitoring, and
3. Provisions for maintenance of sampling and analysis equipment.

c. Post-accident Sampling

A program which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and containment atmosphere samples under accident conditions.

The program shall include the following:

1. Training of personnel,
2. Procedures for sampling and analysis, and
3. Provisions for maintenance of sampling and analysis equipment.

d. High Density Spent Fuel Racks

A program which will assure that any unanticipated degradation of the high density spent fuel racks will be detected and will not compromise the integrity of the racks.

e. Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- 1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM,
- 2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to ten times the concentration values in 10 CFR Part 20.1001-20.2402, Appendix B, Table 2, Column 2,
- 3) Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM.

ADMINISTRATIVE CONTROLS

PROCEDURES AND PROGRAMS (Continued)

- 4) Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released from each unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,
- 5) Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days,
- 6) Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,
- 7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the SITE BOUNDARY to the following:
 - a. For noble gases: less than or equal to 500 mrem/yr to the total body and less than or equal to 3000 mrem/yr to the skin and
 - b. For Iodine-131, for Iodine-133, for tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: less than or equal to 1500 mrem/yr to any organ.
- 8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,
- 9) Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,
- 10) Limitations on venting and purging of the Mark I containment through the Standby Gas Treatment System or the Reactor Building Ventilation System to maintain releases as low as reasonably achievable,
- 11) Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

ADMINISTRATIVE CONTROLS

STARTUP REPORT (Continued)

obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the startup report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial operation) supplementary reports shall be submitted at least every 3 months until all three events have been completed.

ANNUAL REPORTS

6.9.1.4 Annual reports covering the activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.

6.9.1.5 Reports required on an annual basis shall include:

- a. A tabulation on an annual basis of the number of plant, utility, and other personnel (including contractors), for whom monitoring was required, receiving exposures greater than 100 mrems/yr and their associated man-rem exposure according to work and job functions,* (e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance [describe maintenance], waste processing, and refueling). The dose assignments to various duty functions may be estimated based on pocket or thermoluminescent dosimeters (TLD) dosimeters or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole-body dose received from external sources should be assigned to specific major work functions; and
- b. Documentation of all challenges to main steam line safety/relief valves, and
- c. A summary of ECCS outage data including:
 1. ECCS outage dates and duration of outages,
 2. Cause of each ECCS outage,
 3. ECCS systems and components in the outage, and
 4. Corrective action taken.
- d. The reports shall also include the results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.4.5. The following information shall be included:

*This tabulation supplements the requirements of §20.2206 of 10 CFR Part 20.

ADMINISTRATIVE CONTROLS

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the Regional Administrator of the Regional Office of the NRC within the time period specified for each report.

CORE OPERATING LIMITS REPORT

6.9.3 Selected cycle specific core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT (COLR) before each reload cycle or any remaining part of a reload cycle. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in General Electric Company reports NEDE-24011-P-A and NEDE-23785-1-PA. The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met. The COLR, including any mid-cycle revisions or supplement thereto, shall be submitted upon issuance to the NRC Document Control Desk, with copies to the Regional Administrator and Resident Inspector prior to use.

6.10 RECORD RETENTION

6.10.1 In addition to the applicable record retention requirements of Title 10, Code of Federal Regulations, the following records shall be retained for at least the minimum period indicated.

6.10.2 The following records shall be retained for at least 5 years:

- a. Records and logs of unit operation covering time interval at each power level.
- b. Records and logs of principal maintenance activities, inspections, repair, and replacement of principal items of equipment related to nuclear safety.
- c. ALL REPORTABLE EVENTS.
- d. Records of surveillance activities, inspections, and calibrations required by these Technical Specifications.
- e. Records of changes made to the procedures required by Specification 6.8.1.
- f. Records of sealed source and fission detector leak tests and results. |
- g. Records of annual physical inventory of all sealed source material of record. |

ADMINISTRATIVE CONTROLS

6.10 RECORD RETENTION - (continued)

6.10.3 The following records shall be retained for the duration of the unit Operating License:

- a. Records and drawing changes reflecting unit design modifications made to systems and equipment described in the Final Safety Analysis Report.
- b. Records of new and irradiated fuel inventory, fuel transfers, and assembly burnup histories.
- c. Records of doses received by all individuals for whom monitoring was required.
- d. Records of gaseous and liquid radioactive material released to the environs.
- e. Records of transient or operational cycles for those unit components identified in Table 5.7.1-1.
- f. Records of reactor tests and experiments.
- g. Records of training and qualification for current members of the unit staff.
- h. Records of inservice inspections performed pursuant to these Technical Specifications.
- i. Records of quality assurance activities required by the Operational Quality Assurance Manual.
- j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
- k. Records of meetings of the OSRO and the NSRG.
- l. Records of the service lives of all hydraulic and mechanical snubbers required by Specification 3.7.5 including the date at which the service life commences and associated installation and maintenance records.
- m. Records of analyses required by the radiological environmental monitoring program that would permit evaluation of the accuracy of the analysis at a later date. This should include procedures effective at specified times and QA records showing that these procedures were followed.
- n. Records of reviews performed for changes to the OFFSITE DOSE CALCULATION MANUAL and PROCESS CONTROL PROGRAM.
- o. Records of radioactive shipments.

ADMINISTRATIVE CONTROL

6.11 RADIATION PROTECTION PROGRAM

6.11.1 Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained, and adhered to for all operations involving personnel radiation exposure.

6.12 HIGH RADIATION AREA

6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.1601 of 10 CFR Part 20, each high radiation area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit (RWP)*. Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

*Radiation protection personnel or personnel escorted by radiation protection personnel shall be exempt from the RWP issuance requirement during the performance of their assigned radiation protection duties, provided they are otherwise following plant radiation protection procedures for entry into high radiation areas.

ADMINISTRATIVE CONTROLS

HIGH RADIATION AREA (Continued)

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.
- b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them.
- c. A radiation protection qualified individual (i.e., qualified in radiation protection procedures) with a radiation dose rate monitoring device who is responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the Radiation Protection Supervisor** in the RWP.

6.12.2 In addition to the requirements of Specification 6.12.1, areas accessible to individuals with radiation levels such that an individual could receive in 1 hour a dose equivalent greater than 1000 mrem but less than 500 rads at one meter from sources of radioactivity shall be provided with locked doors to prevent unauthorized entry, and the keys shall be maintained under the administrative control of the Nuclear Shift Supervisor on duty and/or the radiation protection supervision. Doors shall remain locked except during periods of access by individuals under an approved RWP which shall specify the dose rate levels in the immediate work area and the maximum allowable stay time for individuals in that area. For individual areas accessible to individuals with radiation levels such that a major portion of the individual's body could receive in 1 hour a dose in excess of 1000 mrem* but less than 500 rads at one meter from sources of radioactivity that are located within large areas, such as the containment, where no enclosure exists for purposes of locking, and no enclosure can be reasonably constructed around the individual areas, then that area shall be roped off, conspicuously posted, and a flashing light shall be activated as a warning device. In lieu of the stay time specification of the RWP, continuous surveillance, direct or remote (such as use of closed circuit TV cameras) may be made by personnel qualified in radiation protection procedures to provide positive exposure control over the activities within the area.

6.13 PROCESS CONTROL PROGRAM (PCP)

6.13.1 The PCP shall be approved by the Commission prior to implementation.

6.13.2 Changes to the PCP:

- a. Shall be documented and records of reviews performed shall be retained as required by Specification 6.10.3n. This documentation shall contain:

*Measurement made at 30 centimeters from source of radioactivity.

** An alternative title may be designated for this position. All requirements of these Technical Specifications apply to the position with the alternative title as apply with the specified title. Alternative titles shall be specified in the Updated Final Safety Analysis Report.

ADMINISTRATIVE CONTROLS

6.13 PROCESS CONTROL PROGRAM (PCP) (Continued)

- 1) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and
 - 2) A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.
- b. Shall become effective after review and acceptance by the OSRO and the approval of the Plant Manager.

6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

6.14.1 The ODCM shall be approved by the Commission prior to implementation.

6.14.2 Changes to the ODCM:

- a. Shall be documented and records of reviews performed shall be retained as required by Specification 6.10.3n. This documentation shall contain:
 - 1) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the changes(s) and
 - 2) A determination that the change will maintain the level of radioactive effluent control required by 10 CFR 20.1302, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.
- b. Shall become effective after review and acceptance by the OSRO and the approval of the Plant Manager.
- c. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as part of or concurrent with the Annual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 93 TO FACILITY OPERATING LICENSE NO. NPF-43

DETROIT EDISON COMPANY

FERMI-2

DOCKET NO. 50-341

1.0 INTRODUCTION

By letter dated July 29, 1993, Detroit Edison Company (the licensee), submitted proposed changes to the Fermi Unit 2 Technical Specifications (TS) in support of its plan to implement the revised 10 CFR Part 20. The licensee inadvertently included a change in its proposed TS page 1-3 for the "LOGIC SYSTEM FUNCTIONAL TEST" definition. As discussed with the licensee's staff, this was not meant to be included as part of this application and therefore, was not reviewed.

2.0 EVALUATION

The licensee has revised the TS to include wording that is consistent with the revised 10 CFR Part 20, Standards for Protection Against Radiation, and will retain the same overall level of effluent control required to meet the design objectives of Appendix I to 10 CFR Part 50.

The proposed TS changes and evaluations follow:

1. Section 1.0 DEFINITIONS

The licensee has proposed to revise the definitions of MEMBER(S) OF THE PUBLIC, and UNRESTRICTED AREA to conform to the definitions of these terms used in 10 CFR 20.1003.

The staff has verified that the proposed definitions conform to the corresponding definitions in 10 CFR 20.1003 and considers these changes to be administrative in nature and acceptable.

2. TS 6.8.5.e Radioactive Effluent Controls Program

The licensee has proposed to revise item 2 to replace the words "Appendix B, Table II" with "Appendix B, Table 2." Also, item 3 of this TS is being revised to replace the reference to "10 CFR 20.106" with "10 CFR 20.1302."

These changes are administrative in nature to incorporate the corresponding revised 10 CFR Part 20 section number and table number and are acceptable.

3. TS 6.8.5.e Radioactive Effluent Controls Program

The licensee has proposed to revise item 2 of this TS which specifies the limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS. The licensee has proposed that the TS be revised to allow "ten times the concentration values in 10 CFR 20.1001 - 20.2401, Appendix B, Table 2, Column 2."

The licensee has proposed this change in order to retain operational flexibility consistent with Appendix I to 10 CFR Part 50, concurrent with the implementation of the revised 10 CFR Part 20. A typographical error in the reference to section 20.2401 has been corrected to read 20.2402.

The current requirements for the content of the licensee's TS concerning radioactive effluents are contained in 10 CFR 50.36a. Section 50.36a of 10 CFR requires licensees to maintain control over radioactive material in gaseous and liquid effluents to unrestricted areas, produced during normal reactor operations, to levels that are as low as reasonably achievable (ALARA). For power reactors, Appendix I to 10 CFR Part 50 contains the numerical guidance to meet the ALARA requirement. The dose values specified in Appendix I of 10 CFR Part 50 are small percentages of the implicit limits in 10 CFR 20.106 and the explicit limits in 10 CFR 20.1301. As secondary controls, the instantaneous dose rates required by this TS were chosen by the staff to help maintain annual average releases of radioactive material in gaseous and liquid effluents to within the dose values specified in Appendix I of 10 CFR Part 50. For the purposes of this TS, 10 CFR Part 20 is used as a source of reference values only. These TS requirements allow operational flexibility, compatible with considerations of health and safety, which may temporarily result in release rates which, if continued for the calendar quarter, would result in radiation doses higher than specified in Appendix I of 10 CFR Part 50. However, these releases are within the implicit limits in 10 CFR 20.106 and the explicit limits in 10 CFR 20.1302 which references Appendix B, Table II concentrations. These referenced concentrations in the old 10 CFR Part 20 are specific values which relate to an annual dose of 500 mrem. The liquid effluent radioactive effluent concentration limits given in Appendix B, Table 2, Column 2 to 10 CFR 20.1001 - 20.2402 are based on an annual dose of 50 mrem total effective dose equivalent. Since an instantaneous release concentration corresponding to a dose rate of 500 mrem/year has been acceptable as a TS limit for liquid effluents, which applies at all times to assure that the values in Appendix I of 10 CFR Part 50 are not likely to be exceeded, it is not necessary to reduce this limit by a factor of 10.

The licensee states that the use of effluent concentration values that are 10 times those listed in Appendix B, Table 2, Column 2 to 10 CFR 20.1001 - 20.2402 will not have a negative impact on the ability to continue to operate within the design objectives in Appendix I to 10 CFR Part 50 and 40 CFR Part 190.

Based on the above, it is acceptable that the instantaneous limits associated with the liquid release rate TS are based on 10 times the effluent concentration values given in Appendix B, Table 2, Column 2 to 10 CFR 20.1001 - 20.2402, to apply at all times.

4. TS 6.8.5.e Radioactive Effluent Controls Program

The licensee has proposed to revise item 7 of this TS which specifies the limitations on the concentrations of radioactive material released in gaseous effluents. The licensee has proposed that the TS be revised to read as follows:

"Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the SITE BOUNDARY shall be limited to the following:

- a. For noble gases: less than or equal to 500 mrem/yr to the total body and less than or equal to 3000 mrem/yr to the skin, and
- b. For Iodine-131, for Iodine-133, for tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: less than or equal to 1500 mrem/yr to any organ;"

The licensee has proposed this change in order to retain operational flexibility consistent with 10 CFR Part 50, Appendix I, concurrent with the implementation of the revised 10 CFR Part 20.

The current requirements for the content of the licensee's TS concerning radioactive effluents are contained in 10 CFR 50.36a. Section 50.36a of 10 CFR requires licensees to maintain control over radioactive material in gaseous and liquid effluents to unrestricted areas, produced during normal reactor operations, to ALARA levels. For power reactors, Appendix I to 10 CFR Part 50 contains the numerical guidance to meet the ALARA requirement. The dose values specified in Appendix I of 10 CFR Part 50 are small percentages of the implicit limits in 10 CFR 20.106 and the explicit limits in 10 CFR 20.1301. As secondary controls, the instantaneous dose rates required by this specification were chosen by the staff to help maintain annual average releases of radioactive material in gaseous and liquid effluents to within the dose values specified in Appendix I of 10 CFR Part 50. For purpose of the bases of this TS, 10 CFR Part 20 is used as a source of reference values only. These TS requirements allow operational flexibility, compatible with considerations of health and safety, which may temporarily result in release rates which, if continued for the calendar quarter, would result in radiation doses higher than specified in Appendix I of 10 CFR Part 50. However, these releases are within the limits specified in 10 CFR 20.106 (10 CFR 20.1302).

This specification, which is based on guidance contained in NUREG-0133, "Preparation of Radiological Effluent Technical Specifications for Nuclear Power Plants: A Guidance Manual for Users of Standard Technical Specifications," is acceptable as a TS limit for gaseous effluents, which

applies at all times as an assurance that the values in Appendix I of 10 CFR Part 50 are not likely to be exceeded.

The licensee states that the proposed TS change will not have a negative impact on the ability to continue to operate within the design objectives in Appendix I of 10 CFR Part 50.

Based on the above, it is acceptable that the gaseous release rate TS for radioactive material be based on the stated dose rates.

5. TS 6.9.1.5 ANNUAL REPORTS

The licensee has proposed to revise this TS to indicate that the annual tabulation of individuals receiving greater than 100 mrem in a year includes only those individuals for whom monitoring was required.

The proposed change is administrative in nature which provides clarification of the TS consistent with the requirements of the revised Part 20. The proposed change is acceptable.

6. TS 6.9.1.5 ANNUAL REPORTS

The licensee has proposed to revise this TS to replace the reference to "20.407" with "20.2206."

This change is administrative in nature to incorporate the corresponding revised 10 CFR Part 20 section number and is acceptable.

7. TS 6.10 RECORD RETENTION

The licensee has proposed to relocate TS 6.10.2.f to TS 6.10.3.o. This change ensures that records of radioactive shipments are retained for the duration of the operating license.

This change is consistent with the requirements of the revised 10 CFR 20.2108(b) and is acceptable.

8. TS 6.10 RECORD RETENTION

The licensee has proposed to revise TS 6.10.3.c to require retention of dose records only for those individuals for whom monitoring was required.

This change is consistent with the requirements of the revised 10 CFR Part 20 and is acceptable.

9. TS 6.12 HIGH RADIATION AREA

The licensee has proposed to revise TS 6.12.1 to replace the reference to "20.203(c)(2)" with "20.1601." The licensee also proposes to change the term "health physics" to "radiation protection" to reflect Fermi 2 organizational groups.

The changes are administrative in nature and are consistent with the revised 10 CFR Part 20 and are acceptable.

10. TS 6.12 HIGH RADIATION AREA

The licensee has proposed to revise the note in TS 6.12.2 to read "Measurements made at 30 cm from the sources of radioactivity." The licensee will replace the words "a major portion of the body" with "an individual." The licensee has also proposed an upper limit for which the TS applies by adding the words "500 rads at one meter."

The changes are consistent with the revised 10 CFR Part 20 and are acceptable.

11. TS 6.14 OFFSITE DOSE CALCULATION MANUAL (ODCM)

The licensee has proposed to revise TS 6.14.2.a.2 to replace the reference "10 CFR 20.106" with "10 CFR 20.1302."

This change is administrative in nature to incorporate the corresponding revised 10 CFR Part 20 section number and is acceptable.

12. BASES 3/4.11.1.4 LIQUID HOLDUP TANKS

The licensee has proposed to revise the BASES to replace the reference to "Appendix B, Table II" with "Appendix B, Table 2."

This change is administrative in nature to incorporate the corresponding revised 10 CFR Part 20 table number and is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Michigan State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment changes recordkeeping, reporting, and administrative procedures and requirements. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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