APPENDIX A. POST COMBINED LICENSE ACTIVITIES – LICENSE CONDITIONS, INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA, AND FINAL SAFETY ANALYSIS REPORT COMMITMENTS

A.1 License Conditions

The United States (U.S.) Nuclear Regulatory Commission's (NRC's) regulations at Title 10 of the *Code of Federal Regulations* (10 CFR) 52.97, "Issuance of combined licenses," requires a combined license (COL) to specify any terms and conditions of the COL the Commission deems appropriate. A license condition is not needed when an existing NRC regulation requires a future regulatory review of a matter to ensure adequate safety during design, construction, inspection activities or operation for a new plant. The staff is proposing that the Commission include the following license conditions, which are set forth below, to control various safety matters.

Proposed License Condition	SER Section	Description
1-1	1.4.5.6	Subject to the conditions and requirements incorporated herein, the Commission hereby licenses DTE: (a).(i) Pursuant to the AEA and 10 CFR Part 70, to receive and possess at any time special nuclear material as reactor fuel in accordance with the limitations for storage and in the amounts necessary for reactor operation, as described in the FSAR as supplemented and amended. (ii) Pursuant to the AEA and 10 CFR Part 70, to use special nuclear material as reactor fuel, after a Commission finding under 10 CFR 52.103(g) has been made, in accordance with the limitations for storage and in amounts necessary for reactor operation, described in the FSAR, as supplemented and amended; (b).(i) Pursuant to the AEA and 10 CFR Parts 30 and 70, to receive, possess, and use, at any time before a Commission finding under 10 CFR 52.103(g), such byproduct and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts, as necessary; (ii) Pursuant to the AEA and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, after a Commission finding under 10 CFR 52.103(g) any

		byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as necessary; (c). (i) Pursuant to the AEA and 10 CFR Parts 30 and 70, to receive, possess, and use, before Commission finding under 10 CFR 52.103(g), in amounts not exceeding those specified in 10 CFR 30.35(d) and 10 CFR 70.25(d) required for establishing decommissioning financial assurance, any byproduct or special nuclear material that is (1) in unsealed form; (2) on foils or plated surfaces, or (3) sealed in glass, for sample analysis or instrument calibration or other activity associated with radioactive apparatus or components; (ii) Pursuant to the AEA and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, after a Commission finding under 10 CFR 52.103(g), in amounts as necessary, any byproduct, source, or special nuclear material without restriction as to chemical or physical form, for sample analysis or instrument calibration or other activity associated with radioactive apparatus or components by not uranium hexafluoride; and (d). Pursuant to the AEA and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
1-2	1.4.5.6	Before the initial receipt of special nuclear materials (SNM) onsite, the licensee shall implement the SNM Material Control and Accounting Program. No later than 12 months after issuance of the COL, the licensee shall submit to the Director of Office of New Reactors (NRO) a schedule that supports planning for and conduct of NRC inspections of the SNM Material Control and Accounting program. The schedule shall be update every 6 months until 12 months before scheduled fuel loading, and every month thereafter until the SNM Material Control and Accounting program has been fully implemented.

1-3	1.4.5.6	The fire protection measures in accordance with RG 1.189 for designated storage building areas (including adjacent fire areas that could affect the storage area) shall be implemented before initial receipt of byproduct or special nuclear materials that are not fuel (excluding exempt quantities as described in 10 CFR 30.18).
1-4	1.4.5.6	The fire protection measures in accordance with RG 1.189 for areas associated with new fuel (including all fuel handling, fuel storage, and adjacent fire areas that could affect the new fuel) shall be implemented before receipt of fuel onsite.
1-5	1.4.5.6	Before the receipt of fuel onsite, a formal letter of agreement shall be in place with the local fire department specifying the nature of arrangements in support of the Fire Protection Program.
1-6	1.4.5.6	All fire protection program features shall be implemented before initial fuel load.
2.2.3-1	2.2.3.5	The applicant shall use tanks with a maximum capacity of 1,000 gallons for the onsite storage of propane. No more than 1,000 gallons of propane will be stored in any single location, and no storage location will be located closer than the minimum safe distance of 854 meters (2,800 feet) from any Fermi 3 safety-related structure and from the MRC.
2.5.3-1	2.5.3.5	The applicant shall perform detailed geologic mapping of excavations for safety-related structures; examine and evaluate geologic features discovered in those excavations; and notify the Director of the Office of New Reactors, or the Director's designee, once excavations for safety-related structures are open for examination by NRC staff.
3.5	3.11.5	"Operational Program Implementation," in Part 10 of the Fermi 3 COL application includes a Proposed License Condition in 3.5.7 related to the EQ Program. This license condition will require the EQ Program to be implemented prior to initial fuel load.
3.6	3.11.5	"Operational Program Readiness," in Part 10 of the Fermi COL application will require the licensee to develop a schedule that supports planning for and conduct of NRC inspection of the operational programs listed in Fermi 3 COL FSAR Table 13.4-201, "Operational Program Required by NRC Regulations." This schedule must be available to the NRC staff no later than 12 months after issuance of the COL. The condition will also require that the schedule be updated every 6 months until 12 months before scheduled fuel

		load, and every month thereafter until the operational programs listed in the Fermi 3 COL FSAR Table 13.4-201 have been fully implemented or the plant has been placed in commercial service, whichever comes first.
3.9-1	3.9.5	FSAR Section 13.4 indicates that FSAR Table 13.4-201 lists each operational program, the regulatory source for the program, the associated implementation milestones, and the FSAR section where the operational program is fully described, as discussed in RG 1.206. RG 1.206, Regulatory Position C.IV.4.3 states that the COL will contain a license condition that requires the licensee to submit to the NRC a schedule that supports planning and conducting NRC inspections of operational programs. The schedule must be submitted 12 months after the NRC issues the COL. The schedule will be updated every 6 months until 12 months before the scheduled fuel loading, and every month thereafter until either the operational programs in FSAR Table 13.4-201 have been fully implemented or the plant has been placed in commercial service, whichever comes first.
3.9-2	3.9.5	Consistent with the licensing of other passive design new reactors, the NRC has prepared a license condition directing the implementation of a surveillance program for squib valves in the gravity driven cooling system (GDS) and the automatic depressurization system (ADS) at Fermi 3 before fuel load to supplement the inservice testing requirements in the ASME OM Code. The license condition is as follows: Before initial fuel load, the licensee shall implement a surveillance program for explosively actuated valves (squib valves) in the GDCS and the ADS at Fermi 3 that includes the following provisions in addition to the requirements specified in the ASME *Code for Operation and Maintenance of Nuclear Power Plants* (OM Code) as incorporated by reference into 10 CFR 50.55a. a. Preservice Testing All explosively actuated valves shall be preservice tested by verifying the operational readiness of the actuation logic and associated electrical circuits for each explosively actuated valve with its pyrotechnic charge removed from the valve. This must include confirmation that sufficient electrical parameters (voltage, current, resistance) are available at the explosively actuated valve from each circuit that is relied upon to actuate the valve. In addition, a

		sample of at least 20 percent of the pyrotechnic charges in all explosively actuated valves shall be tested in the valve or a qualified test fixture to confirm the capability of each sampled pyrotechnic charge to provide the necessary motive force to operate the valve to perform its intended function without damage to the valve body or connected piping. The sampling must select at least one explosively actuated valve from each redundant safety train. Corrective action shall be taken to resolve any deficiencies identified in the operational readiness of the actuation logic or associated electrical circuits, or the capability of a pyrotechnic charge. If a charge fails to fire or its capability is not confirmed, all charges with the same batch number shall be removed, discarded, and replaced with charges from a different batch number that has demonstrated successful 20 percent sampling of the charges. b. Operational Surveillance Explosively actuated valves shall be subject to the following surveillance activities after commencing plant operation: (1) At least once every 2 years, each explosively actuated valve shall undergo visual external examination and remote internal examination (including evaluation and removal of fluids or contaminants that may interfere with operation of the valve) to verify the operational readiness of the valve and its actuator. This examination shall also verify the appropriate position of the internal actuating mechanism and proper operation of remote position indicators. Corrective action shall be taken to resolve any deficiencies identified during the examination with post-maintenance testing conducted that satisfies the preservice testing requirements. (2) At least once every 10 years, each explosively actuated valve shall be disassembled for internal examination of the valve and actuator to verify the operational readiness of the valve assembly and the integrity of individual components and to remove any foreign material, fluid, or corrosion. The examination schedule shall provide for each valve design used for explosively actuated valves at the facility to be included among the explosively actuated valves to be disassembled and examined every 2 years. Corrective action

		shall be taken to resolve any deficiencies identified during the examination with post-maintenance testing conducted that satisfies the PST requirements. (3) For explosively actuated valves selected for test sampling every 2 years in accordance with the ASME OM Code, the operational readiness of the actuation logic and associated electrical circuits shall be verified for each sampled explosively actuated valve following removal of its charge. This must include confirmation that sufficient electrical parameters (voltage, current, resistance) are available for each valve actuation circuit. Corrective action shall be taken to resolve any deficiencies identified in the actuation logic or associated electrical circuits. (4) For explosively actuated valves selected for test sampling every 2 years in accordance with the ASME OM Code, the sampling must select at least one explosively actuated valve from each redundant safety train. Each sampled pyrotechnic charge shall be tested in the valve or a qualified test fixture to confirm the capability of the charge to provide the necessary motive force to operate the valve to perform its intended function without damage to the valve body or connected piping. Corrective action shall be taken to resolve any deficiencies identified in the capability of a pyrotechnic charge in accordance with the PST requirements. This license condition shall expire upon the (1) incorporation of the above surveillance provisions for explosively actuated valves into the facility's inservice testing program; or (2) incorporation of inservice testing requirements for explosively actuated valves in new reactors (i.e., plants receiving a construction permit, or a combined license for construction and operation after January 1, 2000) to be specified in a future edition of the ASME OM Code as incorporated by reference into 10 CFR 50.55a, including any conditions imposed by the NRC into the facility's inservice testing program. This license condition supplements the current requirements in the ASME OM Code for explosively actuated valves, and sets forth requirements for both pre-service testing and operational surveillance, as well as any necessary corrective action. The license condition will expire when either (1) the license

		condition is incorporated into the Fermi 3 IST program; or (2) the updated ASME OM Code requirements for squib valves in new reactors, as accepted by the NRC in 10 CFR 50.55a, are incorporated into the Fermi 3 IST program. For the purpose of satisfying the license condition, the licensee retains the option of including in its IST program either the requirements stated in this condition, or including updated ASME Code requirements.
3.9-3	3.9.5	Steam Dryer Monitoring Plan 1. The licensee shall prepare a Steam Dryer Monitoring Plan (SDMP) and submit the SDMP to the NRC no later than 90 days before the scheduled date for initial fuel loading. 2. The licensee shall provide Power Ascension Test (PAT) procedures for steam dryer monitoring to the NRC resident inspectors at least 10 days before the scheduled date for initial fuel loading. The PAT procedures must include the following: • Level 1 and Level 2 acceptance limits, as defined in Report NEDE-33313P (Revision 5, December 2013), for on-dryer strain gage and on-dryer accelerometer measurements to be used up to 100 percent power; • The power levels at which the steam dryer will be monitored (subject to Conditions 3 and 4) during power ascension, and the duration of monitoring at each power level; • A description of activities to be accomplished during monitoring at each power level; • Plant parameters to be monitored; • A description of the actions to be taken if acceptance criteria are not satisfied; and • A description of the process for verification of the completion of commitments and planned actions specified in the PAT procedures.

		3. The licensee shall complete the actions specified in Item 2 of the model license condition specified in paragraph (c) of Section 10.2, “Comprehensive Vibration Program Elements for a COL Applicant,” in NEDE-33313P (Revision 5) between 65 and 75 percent thermal power. 4.. DTE shall measure, record, and evaluate pressures, strains, and accelerations from the steam dryer instrumentation at power levels approximately 5 percent higher than the previous power level at which DTE measured, recorded, and evaluated such parameters until 100 percent thermal power is reached. DTE shall generate data trending and a projection of strain levels for each successive power level, including full power. DTE shall use data trending analysis to assess whether the Level 1 or Level 2 acceptance limits would be exceeded at the next higher power level for which the PAT specifies monitoring. DTE shall provide the data trending results and revised limit curves to the NRC project manager by facsimile or electronic transmission. 5. At each power level for which Conditions 3 and 4 require steam dryer monitoring, DTE shall measure and record pressure, strain, and acceleration responses over a range of plant conditions sufficient to confirm that loading and fatigue effects from normal variations in plant conditions at power levels up to and including 100 percent thermal power will not adversely affect the life of the dryer. DTE shall include its evaluation of steam dryer performance during such variations in plant conditions, including during Power Maneuvering in the Feedwater Temperature Operating Domain testing, in the dryer structural response as part of the full stress analysis report described in Condition 9 below. 6. If a flow-induced resonance is identified at any power level at which Conditions 3 and 4 require steam dryer monitoring, and the strains or vibrations exceed the pre-determined Level 1 or Level 2 limit curve, DTE shall cease power ascension until completing the actions specified in Item 5 of the model license condition specified in paragraph (c) of Section 10.2 in NEDE--33313P (Revision 5) and the following:

		a. If a Level 1 limit curve is exceeded, DTE shall reduce power to the last power level at which DTE performed steam dryer monitoring pursuant to Conditions 3 and 4 and at which the Level 1 limit curve was not exceeded. DTE shall perform a stress analysis to develop a new Level 1 limit curve before increasing power to the next level at which Conditions 4 requires steam dryer monitoring. b. If a Level 2 limit curve is exceeded, or if data trending indicates that a Level 1 limit curve may be challenged before the next power level at which Conditions 4 requires steam dryer monitoring is reached, DTE shall evaluate the Level 1 and Level 2 limit curves and perform a stress analysis that demonstrates that the stress acceptance limits are satisfied at the higher power level before power is increased. 7. DTE shall determine end-to-end bias and uncertainties by comparing the predicted and measured strain or acceleration on the steam dryer at each power level at which DTE performs steam dryer monitoring pursuant to Conditions 3 and 4 and confirm the conservatism of the predicted dryer stress field. At each such power level, DTE shall adjust the predicted strain and acceleration responses using the frequency-dependent end-to-end bias errors and uncertainty values. If any of the measured sensor data at that power level exceeds the adjusted predictions, DTE shall either (A) modify the bias errors and uncertainty values and limit curves and ensure measured sensor responses do not exceed the adjusted predictions, or (B) quantitatively evaluate the effect on fatigue life. 8. At the initial power level at which Condition 3 requires steam dryer monitoring and at approximately 85 and 95 percent power, DTE shall provide the steam dryer data analysis and results to the NRC project manager by facsimile or electronic transmission; and shall not exceed the power level at which it performed the steam dryer monitoring for at least 72 hours after the NRC project manager has confirmed receipt of the transmission. 9.. DTE shall provide data collected from the steam dryer monitoring required by Condition 4 at

		100 percent power to the NRC project manager by facsimile or electronic transmission within 72 hours of completing the collection of that data, with receipt confirmation from the NRC project manager. DTE shall submit a full stress analysis report and evaluation to the NRC document control desk in accordance with 10 CFR 52.4 within 90 days of first reaching 100 percent thermal power. The report must include the minimum stress ratio and the final dryer load definition using steam dryer data, and associated bias errors and uncertainties, and must demonstrate that the steam dryer will maintain its structural integrity over its design life considering variations in plant parameters, including, but not limited to, reactor pressure and core flow rate. If the structural integrity of the steam dryer for the full plant life is not demonstrated by the stress analysis, DTE shall describe its compensatory actions, such as future dryer replacement, in the stress analysis report. 10. The licensee shall implement a periodic steam dryer inspection program as follows: a. During the first two refueling outages after first reaching 100 percent thermal power, DTE shall perform a visual inspection of all accessible areas and susceptible locations of the steam dryer in accordance with industry guidance on steam dryer inspections in the latest NRC staff-approved version of BWRVIP-139-A, "BWR Vessel and Internals Project, Steam Dryer Inspection and Flaw Evaluation Guidelines," with any conditions or limitations specified in the NRC staff approval. The results of these baseline inspections shall be submitted to the NRC within 60 days following startup after each outage. b. At the end of the second refueling outage after reaching 100 percent thermal power, DTE shall update the Steam Dryer Monitoring Program to include a long-term inspection plan based on plant-specific and industry operating experience, and shall submit the updated program to the NRC within 180 days following startup from the second refueling outage.

5.3.1-1	5.3.1.5	The licensee shall implement a complete Reactor Vessel (RV) Material Surveillance Program prior to fuel load.
5.3.1-2	5.3.1.5	No later than 12 months after issuance of the COL, the licensee shall submit to the Director of NRO a schedule that supports planning for, and the conducting of, NRC inspections of the preservice inspection and ISI programs. The schedule shall be updated every 6 months until 12 months before schedule fuel loading, and every month thereafter until either the PSI or ISI programs have been fully implemented.
5.3-2	5.3.2.5	Prior to fuel load, the pressure-temperature limit curves will be updated to reflect plant-specific material properties, if required.
5.4.4-1	5.2.4.5	The licensee shall submit to the appropriate Director of the NRO, a schedule, no later than 12 months after issuance of the COL, for implementation of the operational programs listed in FSAR Table 13.4-201. The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until the operational programs in the FSAR table have been fully implemented.
11-1	11.4.5	At least 180 days before the date scheduled for initial fuel load as set forth in the notification submitted in accordance with 10 CFR 52.103(a), DTE Electric Company shall implement an operational program for process and effluent monitoring and sampling, including the subprogram and documents for a PCP. No later than 12 months after issuance of the COL, the licensee shall submit to the Director of the Office of New Reactors (NRO) a schedule that supports planning for and conducting of NRC inspections of the operational program for process and effluent monitoring and sampling (including the PCP). The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until the operational program for process and effluent monitoring and sampling (including the PCP) has been fully implemented. (COM 13.4-011)

11-2	11.5.5	At least 180 days before the date scheduled for initial fuel load as set forth in the notification submitted in accordance with 10 CFR 52.103(a), DTE Electric Company shall implement an operational program for process and effluent monitoring and sampling, including the following subprograms and documents: a. Radiological Effluent Technical Specifications/Standard Radiological Effluent Controls (COM 13.4-007) b. Offsite Dose Calculation Manual (COM 13.4-009) c. Radiological Environmental Monitoring Program (COM 13.4-010) No later than 12 months after issuance of the COL, the licensee shall submit to the Director of the NRO a schedule that supports planning and conducting NRC inspections of the operational program for process and effluent monitoring and sampling (including Radiological Effluent Technical Specifications/Standard Radiological Effluent Controls, the Offsite Dose Calculation Manual, and the Radiological Environmental Monitoring Program). The schedule shall be updated every 6 months until 12 months before scheduled fuel loading and every month thereafter, until the above operational program has been fully implemented.
12.3-1	12.3.5	Prior to initial fuel load, the licensee shall implement an operational program for lifecycle minimization of contamination.
12.3-2	12.3.5	No later than 12 months after issuance of the COL, the licensee shall submit to the Director of the Office of New Reactors (NRO) a schedule that supports planning for and conduct of NRC inspections of the operational program (for lifecycle minimization of contamination). The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until this operational program has been fully implemented.
12.5-1	12.5.5	The licensee shall implement the Radiation Protection Program (RPP), (including the ALARA principle) or applicable portions thereof, on or before the associated milestones identified below: a. Receipt of Materials – Prior to initial receipt of byproduct, source, or special nuclear materials onsite (excluding exempt quantities as described in 10 FR 30.18, “Exempt quantities.”) b. Fuel Receipt – Prior to initial receipt and storage of fuel onsite

		c. Fuel Loading – Prior to initial fuel load d. Waste Shipment – Prior to first radioactive waste shipment
12.5-2	12.5.5	No later than 12 months after issuance of the COL, the licensee shall submit to the Director NRO a schedule that supports planning for and conduct of NRC inspections of the operational program (Radiation Protection Program). The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until this operational program has been fully implemented
13.3-1	13.3.5	The licensee shall submit a fully developed set of site-specific Emergency Action Levels (EALs) to the NRC in accordance with the NRC-endorsed version of NEI 07 01, Revision 0, with no deviations. The EAL scheme shall have been discussed and agreed upon with State and local officials. The fully developed site-specific EAL scheme shall be submitted to the NRC at least 180 days before the date scheduled for initial fuel load as set forth in the notification submitted in accordance with 10 CFR 52.103(a).
13.3-2	13.3.5	License Condition COL application Part 10 – The applicant shall execute formal Letters of Agreement with State and local agencies with Emergency Plan responsibilities prior to fuel load. These Letters of Agreement will identify the specific nature of arrangements in support of emergency preparedness for operation of the proposed new nuclear unit. The Emergency Plan shall be revised to include these Letters of Agreement after they have been executed.
13.3-3	13.3.5	The licensee shall conduct a detailed analysis of on-shift staffing, in accordance with the NRC endorsed version of NEI 10-05, “Assessment of On-Shift Emergency Response Organization Staffing and Capabilities,” Revision 0, and the licensee shall incorporate any changes to the Emergency Plan needed to bring staffing to the required levels, prior to or concurrent with completion of Emergency Plan ITAAC 2.0 of Emergency Plan ITAAC Table 2.3.1.
13.4-1	13.4.5	In FSAR Table 13.4-201, the applicant identifies the implementation milestones for each operational program. These implementation milestones, the schedule for which is required to be submitted and updated in accordance with the license condition described above, specify activities to be completed following issuance of the COL. Implementation of each operational

		program will be evaluated by the staff according to the respective implementation milestone.
13.6-1	13.6.5	No later than 12 months after issuance of the COL, the licensee shall submit to the Director of NRO, or the Director's designee, a schedule for implementation of the operational programs listed in FSAR Table 13.4-201, including the associated estimated date for initial loading of fuel. The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until the operational programs in the FSAR table have been fully implemented.
13.6A-1	13.6A.5	The licensee shall submit to the appropriate Director of the NRC, a schedule, no later than 12 months after issuance of the COL, that supports planning for and conduct of NRC inspections of operational programs listed in the operational program FSAR Table 13.4-201. The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until the operational programs in the FSAR table have been fully implemented. This schedule shall also address: a. The implementation of site specific Severe Accident Management Guidance. b. The spent fuel rack coupon monitoring program implementation.
14-1	14.2.5	<u>Startup Administration Manual</u> Prior to initiating the plant's initial test program (ITP), a site specific startup administrative manual (procedures), which includes administrative procedures and requirements that govern the activities associated with the plant ITP is to be provided to on-site NRC inspectors 60 days prior to their intended use.
	14.2.5	<u>Preoperational Startup Test Procedures</u> During the post-licensing period, preoperational and startup test procedures will be subject to a license condition for NRC inspections to verify that the licensee implements the ITP. This process will allow for the performance of necessary plant as-built inspections and walk downs. The licensee will make available to on-site NRC inspectors preoperational and startup test procedures 60 days prior to their intended use.
	14.2.5	<u>Site-Specific Preoperational and Startup Test Procedures</u>

		During the post-licensing period, site-specific preoperational and startup test procedures will be subject to NRC inspections to verify that the licensee implements the ITP. This process will allow for the performance of necessary plant as-built inspections and walk downs. The licensee will make available to on-site NRC inspectors site-specific preoperational and startup test procedures 60 days prior to their intended use.
	14.2.5	<u>Power Ascension Test Phase Reports</u> Certain milestones in the startup testing phase of the ITP (e.g., pre-critical testing, criticality testing, and low-power testing) should be controlled through this license condition to ensure that the designated licensee management reviews, evaluates, and approves relevant test results before proceeding to the power ascension test phase. Accordingly, the licensee shall perform the following: (a)Following completion of all pre-critical and criticality testing, the licensee shall confirm that the test results are within the range of values predicted in the acceptance criteria in the facility's FSAR. Following these licensee confirmations; the licensee will conduct low-power tests and operate the facility at reactor steady-state core power levels not in excess of 5 percent power, in accordance with the conditions of the license. (b)Following completion of all low-power testing the licensee shall confirm that the test results are within the range of values predicted in the acceptance criteria in the facility's FSAR. After completing and evaluating low-power test results, the licensee will conduct power ascension testing and will operate the facility at reactor steady-state core power levels not in excess of 100 percent power, in accordance with the conditions of the license. The licensee is responsible for the review and evaluation of the adequacy of test results presented in the Power Ascension Test Phase reports, as well as final review of overall test results in these reports. Test results, which do not meet acceptance criteria, are identified and corrective actions and retests are performed. The Power Ascension Test Phase reports shall be made available to on-site NRC inspectors.
	14.2.5	<u>Test Changes</u> Within one month of any ITP changes described in the Fermi 3 FSAR, Section 14.2, the licensee shall evaluate

		these changes in accordance with the provisions of 10 CFR 50.59 or the change process defined in the 10 CFR Part 52, Appendix E, Section VIII, and report them in accordance with 10 CFR 50.59(d).
	14.2.5	Operational Program Readiness The licensee shall submit to the appropriate Director of the NRC, a schedule, no later than 12 months after issuance of the COL, that supports planning for and conduct of NRC inspections of operational programs listed in the operational program FSAR Table 13.4-201. The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until either the operational programs in the FSAR table have been fully implemented or the plant has been placed in commercial service, whichever comes first. This schedule shall also address: a. The implementation of site specific Severe Accident Management Guidance. b. The spent fuel rack coupon monitoring program implementation.
19A-1	19.A.5	The licensee shall submit to the appropriate Director of the NRO, a schedule, no later than 12 months after issuance of the COL, that supports planning for and conduct of NRC inspections of operational programs listed in the operational program FSAR Table 13.4-201. The schedule shall be updated every 6 months until 12 months before scheduled fuel loading, and every month thereafter until either the operational programs in the FSAR table have been fully implemented or the plant has been placed in commercial service, whichever comes first. This schedule shall also address: a. The implementation of site specific Severe Accident Management Guidance. b. The spent fuel rack coupon monitoring program implementation.
20.2-1	20.2.5	Mitigation Strategies for Beyond-Design-Basis External Events a. DTE Electric Company shall complete development of an overall integrated plan of strategies to mitigate a beyond-design-basis external event at least 1 year before the completion of the last ITAAC on the schedule required by 10 CFR 52.99(a). b. The overall integrated plan required by this condition must include guidance and

		strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities. The overall integrated plan must include provisions to ensure that all accident mitigation procedures and guidelines (including the guidance and strategies required by this section, emergency operating procedures, abnormal operating procedures, and extensive damage management guidelines) are coherent and comprehensive. c. The guidance and strategies required by this condition must be capable of (i) mitigating a simultaneous loss of all alternating current (ac) power and loss of normal access to the normal heat sink and (ii) providing for adequate capacity to perform the functions upon which the guidance and strategies rely for all units on the Fermi site and in all modes at each unit on the site. d. Before initial fuel load, DTE Electric Company shall fully implement the guidance and strategies required by this condition, including: 1. Procedures; 2. Training; 3. Acquisition, staging, or installation of equipment and consumables relied upon in the strategies; and 4. Configuration controls and provisions for maintenance and testing (including testing procedures and frequencies for preventative maintenance) of the equipment upon which the strategies and guidance required by this condition rely. e. The training required by condition d.2 must use a Systematic Approach to Training (SAT) to evaluate training for station personnel, and must be based upon plant equipment and procedures upon which the guidance and strategies required by this section rely. f. DTE Electric Company shall maintain the

		guidance and strategies described in the application upon issuance of the license, and the integrated plan of strategies upon its completion as required by condition a. DTE may change the strategies and guidelines required by this Condition provided that DTE evaluates each such change to ensure that the provisions of conditions b and c continue to be satisfied and DTE documents the evaluation in an auditable form.
20.3-1	20.3.5	Reliable Spent Fuel Pool/Buffer Pool Level Instrumentation Prior to initial fuel load, DTE Electric Company shall address the following requirements using the guidance contained in JLD-ISG-2012-03, "Compliance with Order EA-2012-051, Reliable Spent Fuel Pool Instrumentation," Revision 0: The spent fuel pool/buffer pool instrumentation shall be maintained available and reliable through the development and implementation of a training program. The training program shall include provisions to ensure trained personnel can route the temporary power lines from the alternate power source to the appropriate connection points, and connect the alternate power source to the safety-related level instrument channels.
20.4-1	20.4.5	Emergency Planning Actions Prior to initial fuel load, DTE Electric Company will fully implement the following requirements for emergency planning actions related to communications and staffing. Communications: At least 18-months before the latest date set forth in the schedule submitted in accordance with 10 CFR 52.99(a) for completing the inspections, tests, and analyses in the ITAAC, DTE Electric Company shall have performed an assessment of on-site and off-site communications systems and equipment required during an emergency event to ensure communications capabilities can be maintained during prolonged station blackout conditions. The communications capability assessment will be performed in accordance with NEI 12–01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and

		Communications Capabilities", Revision 0. At least one hundred eighty (180) days before the date scheduled for initial fuel load as set forth in the notification submitted in accordance with 10 CFR 52.103(a), DTE Electric Company shall complete implementation of corrective actions identified in the communications capability assessment described above, including any related emergency Staffing: At least 18-months before the latest date set forth in the schedule submitted in accordance with 10 CFR § 52.99(a)for completing the inspections, tests, and analyses in the ITAAC, DTE Electric Company shall have performed assessments of the on-site and augmented staffing capability to satisfy the regulatory requirements for response to a multi-unit event. The staffing assessments will be performed in accordance with NEI 12–01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities", Revision 0. At least 180 days before the date scheduled for initial fuel load set forth in the notification submitted in accordance with 10 CFR § 52.103(a), DTE Electric Company shall revise the Fermi 3 Emergency Plan to include the following: • Incorporation of corrective actions identified in the staffing assessments described above. Identification of how the augmented staff will be notified given degraded communications capabilities.

A.2 Inspections, Tests, Analyses, and Acceptance Criteria

The staff has identified the certain inspections, tests, analyses, and acceptance criteria (ITAAC) that it will recommend the Commission impose with respect to a COL issued to the applicant. The COL application ITAAC consists of the following four parts:

1. Design Certification ITAAC
2. Physical Security ITAAC
3. Emergency Planning ITAAC
4. Site-specific ITAAC

1. Design Certification ITAAC

The design certification ITAAC are in the ESBWR DCD, Revision 10, Tier 1, which will be incorporated by reference into the COL should a COL be issued to the applicant.

2. Physical Security ITAAC

The physical security ITAAC are provided in Table 2-1. The licensee shall perform and satisfy the ITAAC defined in Table 2-1 (from Fermi 3 SER Table 13.6-1 and Fermi 3 COL Application Part 10, Table 2.2-1).

Table 2-1
ITAAC for the Site-Specific Security System

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1(a). Vital equipment will be located only within a vital area.	1(a). All vital equipment locations will be inspected.	1(a). Vital equipment is located only within a vital area.
1(b). Access to vital equipment will require passage through at least two physical barriers.	1(b). All vital equipment physical barriers will be inspected.	1(b). Vital equipment is located within a protected area such that access to the vital equipment requires passage through at least two physical barriers.
2(a). Physical barriers for the protected area perimeter will not be part of vital area barriers.	2(a). The protected area perimeter barriers will be inspected.	2(a). Physical barriers at the perimeter of the protected area are separated from any other barrier designated as a vital area barrier.
2(b). Penetrations through the protected area barrier will be secured and monitored.	2(b). All penetrations through the protected area barrier will be inspected.	2(b). All penetrations and openings through the protected area barrier are secured and monitored by intrusion detection equipment.
2(c). Unattended openings that intersect a security boundary, such as underground pathways, will be protected by a physical barrier and monitored by intrusion detection equipment or provided surveillance at a frequency sufficient to detect exploitation.	2(c). All unattended openings within the protected area barriers will be inspected.	2(c). All unattended openings (such as underground pathways) that intersect a security boundary (such as the protected area barrier), are protected by a physical barrier and monitored by intrusion detection equipment or provided surveillance at a frequency sufficient to detect exploitation.

Table 2-1 ITAAC for the Site-Specific Security System		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
3(a). Isolation zones will exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area and will be designed of sufficient size to permit observation and assessment on either side of the barrier.	3(a). The isolation zones in outdoor areas adjacent to the protected area perimeter barrier will be inspected.	3(a). The isolation zones exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area and are of sufficient size to permit observation and assessment of activities on either side of the barrier in the event of its penetration or attempted penetration.
3(b). Isolation zones will be monitored with intrusion detection and assessment equipment that is designed to provide detection and assessment of activities within the isolation zone.	3(b). The intrusion detection equipment within the isolation zones will be inspected.	3(b). Isolation zones are equipped with intrusion detection and assessment equipment capable of providing detection and assessment of activities within the isolation zone.
3(c). Areas where permanent buildings do not allow sufficient observation distance between the intrusion detection system and the protected area barrier (e.g., the building walls are immediately adjacent to, or are an integral part of the protected area barrier) will be monitored with intrusion detection and assessment equipment that is designed to detect the attempted or actual penetration of the protected area perimeter barrier before completed penetration of the barrier and assessment of detected activities.	3(c). Inspections of areas of the protected area perimeter barrier that do not have isolation zones will be performed.	3(c). Areas where permanent buildings do not allow sufficient observation distance between the intrusion detection system and the protected area barrier (e.g., the building walls are immediately adjacent to, or an integral part of, the protected area barrier) are monitored with intrusion detection and assessment equipment that detects attempted or actual penetration of the protected area perimeter barrier before completed penetration of the barrier and assessment of detected activities.
4(a). The perimeter intrusion detection system will be designed to detect penetration or attempted penetration of the protected area perimeter barrier before completed penetration of the barrier, and for subsequent alarms to annunciate concurrently in at least two continuously manned onsite alarm stations (central and secondary alarm stations).	4(a). Tests, inspections, or a combination of tests and inspections of the intrusion detection system will be performed.	4(a). The intrusion detection system can detect penetration or attempted penetration of the protected area perimeter barrier before completed penetration of the barrier, and subsequent alarms annunciate concurrently in at least two continuously manned on site alarms stations (central and secondary alarm stations).
4(b). The perimeter assessment equipment will be designed to provide video	4(b). Tests, inspections, or a combination of tests and inspections of the video	4(b). The perimeter assessment equipment is capable of real-time and playback video image

Table 2-1 ITAAC for the Site-Specific Security System		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
image recording with real-time and playback capability that can provide assessment of detected activities before and after each alarm annunciation at the protected area perimeter barrier.	assessment equipment will be performed.	recording that provides assessment of detected activities before and after each alarm at the protected area perimeter barrier.
4(c). The intrusion detection and assessment equipment at the protected area perimeter will be designed to remain operable from an uninterruptible power supply in the event of the loss of normal power.	4(c). Tests, inspections, or a combination of tests and inspections of the uninterruptible power supply will be performed.	4(c). All Intrusion detection and assessment equipment at the protected area perimeter remains operable from an uninterruptible power supply in the event of the loss of normal power.
5. Isolation zones and exterior areas within the protected area will be provided with illumination to permit assessment in the isolation zones and observation of activities within exterior areas of the protected area.	5. The illumination in isolation zones and exterior areas within the protected area will be inspected.	5. Illumination in isolation zones and exterior areas within the protected area is 0.2 foot candles measured horizontally at ground level or alternatively augmented, sufficient to permit assessment and observation.
6. The external walls, doors, ceiling, and floors in the Secondary Alarm Station, and the last access control function for access to the protected area will be bullet resistant, to at least Underwriters Laboratories Ballistic Standard 752, “The Standard of Safety for Bullet-Resisting Equipment,” Level 4, or National Institute of Justice Standard 0108.01, “Ballistic Resistant Protective Materials,” Type III.	6. Type test, analysis, or a combination of type test and analysis of the external walls, doors, ceiling, and floors in the Secondary Alarm Station, and the last access control function for access to the protected area will be performed.	6. A report exists and concludes that the walls, doors, ceilings, and floors in the Secondary Alarm Station, and the last access control function for access to the protected area are bullet resistant to at least Underwriters Laboratories Ballistic Standard 752, Level 4, or National Institute of Justice Standard 0108.01, Type III.
7. The vehicle barrier system will be designed, installed, and located at the necessary standoff distance to protect against the design-basis threat vehicle bombs.	7. Type test, inspections, analysis or a combination of type tests, inspections, and analysis will be performed for the vehicle barrier system.	7. A report exists and concludes that the vehicle barrier system will protect against the threat vehicle bombs based on the standoff distance for the system.
8(a). Access control points will be established and designed to control personnel and vehicle access into the protected area.	8(a). Tests, inspections, or a combination of tests and inspections of installed systems and equipment will be performed.	8(a). Access control points exist for the protected area and are configured to control access.
8(b). Access control points will be established and designed	8(b). Tests, inspections, or a combination of tests and	8(b). Detection equipment exists and is capable of detecting

Table 2-1 ITAAC for the Site-Specific Security System		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
with equipment for the detection of firearms, explosives, and incendiary devices at the protected area personnel access points.	inspections of installed systems and equipment will be performed.	firearms, explosives, and incendiary devices at the protected area personnel access control points.
9. An access control system with a numbered photo identification badge system will be installed and designed for use by individuals who are authorized access to protected areas and vital areas without escort.	9. The access control system and the numbered photo identification badge system will be tested.	9. The access authorization system with a numbered photo identification badge system is installed and provides authorized access to protected and vital areas only to those individuals with unescorted access authorization.
10. Unoccupied vital areas will be designed with locking devices and intrusion detection devices that annunciate in the Secondary Alarm Station.	10. Tests, inspections, or a combination of tests and inspections of unoccupied vital area intrusion detection equipment and locking devices will be performed.	10. Unoccupied vital areas are locked, and intrusion is detected and annunciated in the Secondary Alarm Station.
11(a). Intrusion detection equipment and video assessment equipment will annunciate and be displayed concurrently in at least two continuously manned onsite alarm stations (Central and Secondary Alarm Stations).	11(a). Tests, inspections, or a combination of tests and inspections of intrusion detection equipment and video assessment equipment will be performed.	11(a). Intrusion detection equipment and video assessment equipment annunciate and display concurrently in at least two continuously manned onsite alarm stations (Central and Secondary Alarm Stations).
11(b). The Secondary Alarm Station will be located inside the protected area and will be designed so that the interior of the alarm station is not visible from the perimeter of the protected area.	11(b). The Secondary Alarm Station location will be inspected.	11(b). The Secondary Alarm Station is located inside the protected area, and the interior of the alarm station is not visible from the perimeter of the protected area.
11(c). Central and Secondary Alarm Stations will be designed, equipped and constructed such that no single act, in accordance with the design-basis threat of radiological sabotage, can simultaneously remove the ability of both the central and secondary alarm stations to (1) detect and assess alarms, (2) initiate and coordinate an adequate response to alarms, (3) summon offsite assistance, and (4) provide effective command and control.	11(c). Tests, inspections, or a combination of tests and inspections of the Central and Secondary Alarm Stations will be performed.	11(c). Central and Secondary Alarm Stations are designed, equipped, and constructed such that no single act, in accordance with the design-basis threat of radiological sabotage, can simultaneously remove the ability of both the central and secondary alarm stations to (1) detect and assess alarms, (2) initiate and coordinate an adequate response to alarms, (3) summon offsite assistance, and (4) provide effective command and control.

Table 2-1 ITAAC for the Site-Specific Security System		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
11(d). Both the Central and Secondary Alarm Stations will be constructed, located, protected, and equipped to the standards for the Central Alarm Station (alarm stations need not be identical in design but shall be equal and redundant, capable of performing all functions required of alarm stations).	11(d). Tests, inspections, or a combination of tests and inspections of the Central and Secondary Alarm Stations will be performed.	11(d). The Central and Secondary Alarm Stations are located, constructed, protected, and equipped to the standards of the Central Alarm Station and are functionally redundant (stations need not be identical in design).
12. The secondary security power supply system for alarm annunciator equipment contained in the Secondary Alarm Station and non-portable communications equipment contained in the Secondary Alarm Station is located within a vital area.	12. The secondary security power supply system will be inspected.	12. The secondary security power supply system for alarm annunciator equipment contained in the Secondary Alarm Station and non-portable communications equipment contained in the Secondary Alarm Station is located within a vital area.
13(a). Security alarm devices, including transmission lines to annunciators, will be tamper-indicating and self-checking (e.g., an automatic indication is provided when failure of the alarm system or a component occurs or when on standby power), and alarm annunciation indicates the type of alarm (e.g., intrusion alarms, emergency exit alarm) and location.	13(a). All security alarm devices and transmission lines will be tested.	13(a). Security alarm devices including transmission lines to annunciators are tamper-indicating and self-checking (e.g., an automatic indication is provided when failure of the alarm system or a component occurs, or when the system is on standby power), and the alarm annunciation indicates the type of alarm (e.g., intrusion alarm, emergency exit alarm) and location.
13(b). Intrusion detection and assessment systems will be designed to provide visual display and audible annunciation of alarms in the Secondary Alarm Station.	13(b). Intrusion detection and assessment systems will be tested.	13(b). The intrusion detection and assessment systems provide a visual display and audible annunciation of alarms in the Secondary Alarm Station (concurrently with the display and annunciation in the Central Alarm Station).
14. No Site-Specific ITAAC specified.	14. No Site-Specific ITAAC specified.	14. No Site-Specific ITAAC specified.
15. Emergency exits through the protected area perimeter and vital area boundaries will be alarmed with intrusion detection devices and secured by locking devices that allow prompt egress during an emergency.	15. Tests, inspections, or a combination of tests and inspections of emergency exits through the protected area perimeter and vital area boundaries will be performed.	15. Emergency exits through the protected area perimeter and vital area boundaries are alarmed with intrusion detection devices and secured by locking devices that allow prompt egress during an emergency.

Table 2-1 ITAAC for the Site-Specific Security System		
Design Commitment	**Inspections, Tests, Analyses**	**Acceptance Criteria**
16(a). The Secondary Alarm Station will have conventional (land line) telephone service with the Main Control Room and local law enforcement authorities.	16(a). Tests, inspections, or a combination of tests and inspections of the Secondary Alarm Stations' conventional (land line) telephone service will be performed.	16(a). The Secondary Alarm Station is equipped with conventional (land line) telephone service with the Main Control Room and local law enforcement authorities.
16(b). The Secondary Alarm Station will be capable of continuous communication with on-duty security force personnel.	16(b). Tests, inspections, or a combination of tests and inspections of the Secondary Alarm Stations' continuous communication capabilities will be performed.	16(b). The Secondary Alarm Station is capable of continuous communication with on-duty watchmen, armed security officers, armed responders, or other security personnel who have responsibilities within the physical protection program and during contingency response events.
16(c). Non-portable communications equipment in the Secondary Alarm Station will remain operable from an independent power source in the event of loss of normal power.	16(c). Tests, inspections, or a combination of tests and inspections of the non-portable communications equipment will be performed.	l6(c). All non-portable communication devices (including conventional telephone systems) in the Secondary Alarm Station are wired to an independent power supply that enables those systems to remain operable (without disruption) during the loss of normal power.

3. Emergency Planning ITAAC.

The emergency planning (EP)-ITAAC are provided in Table 3-1. The licensee shall perform and satisfy the ITAAC defined in Table 3.-1 (from Fermi 3 COL Application Part 10, Table 2.3-1)

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
1.0 Assignment of Responsibility – Organizational Control			
10 CFR 50.47(b)(1) – Primary responsibilities for emergency response by the nuclear facility licensee, and by State and local organizations within the emergency planning zones (EPZs) have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principle response organization has staff to respond and to augment its initial response on a continuous basis.	1.1 The staff exists to provide 24-hour per day emergency response and manning of communications links, including continuous operations for a protracted period. [A.1.e, A.4**] [**A.1.e, A.4 corresponds to NUREG-0654/FEMA-REP-1 evaluation criteria.] ITAAC Element addressed in: COL EP II.A.1.b, II.A.1.e	1.1 An inspection of the implementing procedures or staffing rosters will be performed.	1.1 Emergency plan implementing procedures or staffing rosters establish 24-hour per day emergency response staffing and manning of communications links, including continuous operations for a protracted period.
2.0 Onsite Emergency Organization			
10 CFR 50.47(b)(2) – On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.	2.1 The staff exists to provide minimum and augmented on-shift staffing levels, consistent with Table B-1 of NUREG-0654/FEMA-REP-1, Revision 1. [B.5, B.7] ITAAC Element addressed in: COL EP II.B.3, II.B.4, II.B.6, Table II.B-1	2.1 An inspection of the implementing procedures or staffing rosters will be performed.	2.1 Emergency plan implementing procedures or staffing rosters establish minimum and augmented on-shift staffing levels, consistent with Table II.B-1 of the Fermi 3 Combined License Application Emergency Plan.
3.0 Emergency Response Support and Resources			
10 CFR 50.47(b)(3) – Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility (EOF) have been made, and other organizations capable of augmenting the planned response	Not used. Provided for consistency with Regulatory Guide (RG), 1.206 Table C.II.1-B1 "Emergency Planning— Generic Inspection, Test, Analysis, and Acceptance Criteria (EP-ITAAC)," ITAAC numbering scheme.	Not used. Provided for consistency with RG 1.206, Table C.II.1-B1 Emergency Planning— Generic Inspection, Test, Analysis, and Acceptance Criteria (EP-ITAAC)," ITAAC numbering scheme.	Not used. Provided for consistency with RG 1.206, Table C.II.1-B1 Emergency Planning—Generic Inspection, Test, Analysis, and Acceptance Criteria (EP-ITAAC)," ITAAC numbering scheme.

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
have been identified.			
4.0 Emergency Classification System			
10 CFR 50.47(b)(4) – A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.	4.1 A standard emergency classification and emergency action level (EAL) scheme exists, and identifies facility system and effluent parameters constituting the bases for the classification scheme. [D.1] ITAAC Element addressed in: COL EP II.D.1	4.1 An inspection of the control room, technical support center (TSC), and EOF will be performed to verify that they have displays for retrieving facility system and effluent parameters that constitute the bases for the classification scheme in emergency plan Implementing Procedure, "Emergency Classification."	4.1.1 The specific parameters identified in the EAL thresholds included in emergency plan implementing procedure, "Emergency Classification," have been retrieved and displayed in the control room, TSC, and EOF. 4.1.2 The ranges available in the control room, TSC, and EOF encompasses the values for the specific parameters identified in the EAL thresholds included in emergency plan implementing procedure, "Emergency Classification."
5.0 Notification Methods and Procedures			
10 CFR 50.47(b)(5) – Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow-up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.	5.1 The means exist to notify responsible State and local organizations within 15 minutes, after the licensee declares an emergency. [E.1] ITAAC Element addressed in: COL EP II.E.1	5.1 A test will be performed of the capabilities.	5.1 Communications have been established via Ringdown Phone System among the control room, the State of Michigan, Monroe County, and Wayne County within 15 minutes after an emergency has been declared.
	5.2 The means exist to notify emergency response personnel. [E.2] ITAAC Element addressed in: COL EP II.E.1	5.2 A test will be performed of the capabilities.	5.2 Notification to the Fermi 3 emergency response organization has been performed. NOTE: Confirmation of the ability to alert, notify and mobilize the Fermi 3 emergency response personnel is addressed in Acceptance Criterion 14.1.1.B.1.

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
	5.3 The means exists to notify and provide instructions to the populace within the plume exposure EPZ. [E.6] ITAAC Element addressed in: COL EP II.E.2 & E.5	5.3 See 5.3 Acceptance Criteria.	5.3 The capability of the Alert and Notification System (A&NS) to operate properly is tested monthly by the Fermi 2 Reactor Oversight Program and may be presumed adequate for the purposes of the Fermi 3 EP as identified in NRC RAI Letter 52, ML110590635 (RAI 13.03-57).
6.0 Emergency Communications			
10 CFR 50.47(b)(6) – Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.	6.1 The means exist for communications among the control room, TSC, EOF, principal State, and local, emergency operations centers (EOCs), and radiological emergency teams. [F.1.d] ITAAC Element addressed in: COL EP II.F.1.A & B	6.1 A test will be performed of the capabilities.	6.1.1 Communications via the Ringdown Phone System have been established among the control room, TSC, EOF, State of Michigan, Monroe County, Wayne County, and the Province of Ontario, Canada. 6.1.2 Communications have been established between the TSC and radiological emergency teams. 6.1.3 Communications have been established between the EOF and radiological emergency teams.
	6.2 The means exist for communications from the control room, TSC, and EOF to the NRC headquarters and regional office EOCs (including establishment of the Emergency Response Data Systems (ERDS) between the onsite computer system and the NRC Operations Center.) [F.1.f] ITAAC Element addressed in: COL EP II.F.1.A.5	6.2 A test will be performed of the capabilities.	6.2 Communications have been established from the control room, TSC, and EOF to NRC Headquarters and Region III EOCs, and an access port for ERDS is provided.

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
7.0 Public Education and Information			
10 CFR 50.47(b)(7) – Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.	7.1 The licensee has provided space which may be used for a limited number of the news media at the near-site EOF [G.3.b] ITAAC Element addressed in: COL EP II.G.3 & 4	7.1 An inspection of the Joint Information Center will be performed to verify that space is provided for a limited number of the news media.	7.1 The Joint Information Center has space for approximately 500 news media personnel.
8.0 Emergency Facilities and Equipment			
10 CFR 50.47(b)(8) – Adequate emergency facilities and equipment to support the emergency response are provided and maintained.	8.1 The licensee has established a TSC and onsite operations support center (OSC). [H.1] ITAAC Element addressed in: COL EP II.H.1.b & c	8.1.1 An inspection of the as-built TSC and OSC will be performed.	8.1.1 The TSC has at least 182 square meters (1950 square feet) of floor space. 8.1.2 The following communications equipment has been provided in the TSC and voice transmission and reception have been accomplished: • NRC systems: Emergency Notification System (ENS), Health Physics Network (HPN), Reactor Safety Counterpart Link (RSCL), Protective Measures Counterpart Link (PMCL), Management Counterpart Link (MCL) • Dedicated telephone to EOF • Dedicated telephone to control room • Dedicated telephone to OSC 8.1.3 The TSC has been located in the Electrical Building. 8.1.4 The TSC includes radiation monitors

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			and a ventilation system with a high efficiency particulate air (HEPA) and charcoal filter. 8.1.5 A back-up electrical power supply is available for the TSC. 8.1.6 Reception, storage, processing, and display of plant and environmental information used to initiate emergency measures and conduct emergency assessment has been accomplished at the TSC. 8.1.7 The OSC is in a location separate from the control room. 8.1.8 The following communications equipment has been provided in the OSC and voice transmission and reception have been accomplished: • Dedicated telephone to control room • Dedicated telephone to TSC • Plant page system (voice transmission only)
	8.2 The licensee has established an emergency operations facility (EOF). [H.2] ITAAC Element addressed in: COL EP II.H.1.d	8.2 An inspection of the EOF will be performed.	8.2.1 A report exists that confirms the EOF is greater than 300 square meters (3,225 square feet). 8.2.2 The EOF includes shielding with a protection factor of 20. 8.2.3 The EOF HVAC system includes the capability to isolate and filter outside air with HEPA filters. 8.2.4 The EOF includes portable airborne radioactivity and area radiation monitors with local alarm capability. 8.2.5 Voice transmission and reception have been accomplished between the EOF and TSC. 8.2.6 Voice transmission and reception have

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			been accomplished between the EOF, the control room, TSC, and the following organizations: NRC, the State of Michigan, Monroe County, and Wayne County. 8.2.7 Acquisition, display and evaluation of radiological, meteorological, and plant system data specified in emergency plan implementing procedure, "Dose Assessment Methodology," needed to determine offsite protective action recommendations has been accomplished at the EOF.
	8.3 The means exists to initiate emergency measures, consistent with Appendix 1 of NUREG-0654/FEMA-REP-1, Revision 1. [H.5] ITAAC Element addressed in: COL EP II.H.4	8.3 An analysis of emergency plan implementing procedures will be performed.	8.3 The means to initiate emergency measures, described in Section II.H.4 of the Fermi 3 Combined License Application Emergency Plan are addressed in emergency plan implementing procedures, "Emergency Classification."
	8.4 The means exists to acquire data from, or for emergency access to, offsite monitoring and analysis equipment. [H.6] ITAAC Element addressed in: COL II. C.3, II.H.1.d, II.H.4.a, II.H.4.b. II.H.5.b	8.4 An analysis of emergency plan implementing procedures will be performed.	8.4 The means to acquire data from, or for emergency access to, offsite monitoring and analysis equipment described in Sections II.C.3, II.H.1.d, II.H.4.a, II.H.4.b, and II.H.5.b of the Fermi 3 Combined License Application Emergency Plan are addressed in emergency plan implementing procedures, "Dose Assessment Methodology."
	8.5 The means exists to provide offsite radiological monitoring equipment in the vicinity of the nuclear facility. [H.7] ITAAC Element addressed in: COL II.H.2 & II.H.6	8.5 An analysis of emergency plan implementing procedures will be performed.	8.5 The means to provide for offsite radiological monitoring equipment in the vicinity of Fermi 3 described in Sections II.H.2 and II.H.6 of the Fermi 3 Combined License Application Emergency Plan are addressed in emergency plan implementing procedures, "Onsite/Offsite Radiological Monitoring."
	8.6 The means exists to	8.6 An analysis of emergency plan	8.6 The means to obtain meteorological

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
	provide meteorological information, consistent with Appendix 2 of NUREG-0654/FEMA-REP-1, Revision 1.[H.8] ITAAC Element addressed in: COL II.H.7	implementing procedures will be performed.	information described in Section II.H.7 of the Fermi 3 Combined License Application Emergency Plan are addressed in emergency plan implementing procedures, "Dose Assessment Methodology."
9.0 Accident Assessment			
10 CFR 50.47(b)(9) – Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.	9.1 The means exist to provide initial and continuing radiological assessment throughout the course of an accident. [I.2] ITAAC Element addressed in: COL EP II.I.2, Appendix 4	9.1 A test of the emergency plan will be conducted by performing an exercise or drill to verify the capability to perform accident assessment.	9.1 Using selected monitoring parameters identified in the EAL thresholds included in emergency plan implementing procedure, "Emergency Classification," simulated degraded plant conditions are assessed and protective actions are initiated in accordance with the following criteria: A. Accident Assessment and Classification 1. Demonstrate the ability to identify initiating conditions, determine EAL parameters, and correctly classify the emergency throughout the exercise or drill. B. Radiological Assessment and Control 1. Demonstrate the ability to obtain onsite radiological surveys and samples. 2. Demonstrate the ability to continuously monitor and control radiation exposure to emergency workers. 3. Demonstrate the ability to assemble

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			and deploy field monitoring teams within 60 minutes from the decision to do so. 4. Demonstrate the ability to satisfactorily collect and disseminate field team data. 5. Demonstrate the ability to develop dose projections. 6. Demonstrate the ability to make the decision whether to issue radioprotective drugs (KI) to Fermi 3 emergency workers. 7. Demonstrate the ability to develop appropriate protective action recommendations (PARs) and communicated to appropriate authorities within 15 minutes of development
	9.2 The means exists to determine the source term of releases of radioactive material within plant systems, and the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors. [I.3] ITAAC Element addressed in: COL EP II.I.3, Appendix 4	9.2 An analysis of emergency plan implementing procedures and the Offsite Dose Calculation Manual (ODCM) will be completed to verify the ability to determine the source term and magnitude of release.	9.2 Emergency plan implementing procedure, “Dose Assessment Methodology,” and the ODCM correctly calculate source terms and magnitudes of postulated releases.
	9.3 The means exists to continuously assess the impact of the release of radioactive	9.3 An analysis of emergency plan implementing procedures and the ODCM will be completed to verify the	9.3 Emergency plan implementing procedure, “Dose Assessment Methodology,” and the ODCM calculate the

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
	materials to the environment, accounting for the relationship between effluent monitor readings, and onsite and offsite exposures and contamination for various meteorological conditions. [I.4] ITAAC Element addressed in: COL EP II.I.4, Appendix 4	relationship between effluent monitor readings and offsite exposures and contamination for various meteorological conditions has been established.	relationship between effluent monitor readings and offsite exposures and contamination for various meteorological conditions.
	9.4 The means exists to acquire and evaluate meteorological information. [I.5] ITAAC Element addressed in: COL EP II.I.5	9.4 An inspection of the control room, TSC, and EOF will be performed to verify the availability of the following meteorological data is available: • Wind speed (at 10 m and 60 m) • Wind direction (at 10 m and 60 m) • Ambient air temperature (at 10 m and 60 m)	9.4.1 The specified meteorological data was available at the control room, TSC, and EOF. 9.4.2 The specified meteorological data was transmitted to and received by the offsite NRC center and State of Michigan.
	9.5 The means exists to determine the release rate and projected doses if the instrumentation used for assessment is off-scale or inoperable. [I.6]	9.5 An analysis of the methodology contained in the emergency plan implementing procedures for determining the release rate and projected dose when the instrumentation used for assessment is offscale or inoperable will be performed.	9.5 Emergency plan implementing procedure, “Dose Assessment Methodology,” provides the means to determine the release rate and projected doses if the instrumentation used for assessment is off-scale or inoperable.
	9.6 The means exist for field monitoring within the plume exposure EPZ. [I.7]	9.6 An analysis of emergency plan implementing procedures will be performed.	9.6 Emergency plan implementing procedure, “Onsite/Offsite Radiological Monitoring,” provides the means for field monitoring within the plume exposure pathway EPZ.
	9.7 The means exist to make rapid assessments of actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways, including activation, notification	9.7 A test will be performed of the capabilities.	9.7 Demonstrate the capability for making rapid assessment of the actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways.

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
	means, field team composition, transportation, communication, monitoring equipment, and estimated deployment times. [I.8] ITAAC Element addressed in: COL EP II.I.7		
	9.8 The capability exists to detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 10^{-7} µCi/cc (microcuries per cubic centimeter) under field conditions. [I.9] ITAAC Element addressed in: COL EP II.I.8	9.8 A test of Fermi 3 field survey instrumentation will be performed to verify the capability to detect airborne concentrations as low as 10^{-7} µCi/cc.	9.8 Instrumentation used for monitoring I-131 to detect airborne concentrations as low as 10^{-7} µCi/cc has been provided.
	9.9 The means exist to estimate integrated dose from the projected and actual dose rates, and for comparing these estimates with the EPA protective action guides (PAGs). [I.10] ITAAC Element addressed in: COL EP II.I.9, Appendix 4	9.9 An analysis of the methodology contained in the emergency plan implementing procedures for estimating dose and preparing protective action recommendations, and in the ODCM, will be performed to verify the ability to estimate an integrated dose from projected and actual dose rates.	9.9 Emergency plan implementing procedure, "Dose Assessment Methodology," and the ODCM estimate an integrated dose.
10.0 Protective Response			
10 CFR 50.47(b)(10) – A range of protective actions has been developed for the plume exposure EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic	10.1 The means exist to warn and advise onsite individuals of an emergency, including those in areas controlled by the operator, including:[J.1] 1. employees not having emergency assignments;	10.1 A test of the onsite warning and communications capability emergency plan implementing procedures including protective action guidelines, assembly and accountability and site dismissal will be performed during a drill or exercise.	10.1.1 Demonstrate the capability to direct and control emergency operations. 10.1.2 Demonstrate the ability to transfer emergency direction from the control room (simulator) to the TSC within 30 minutes from activation. 10.1.3 Demonstrate the ability to prepare

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
use of potassium iodide (KI), as appropriate. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure EPZ appropriate to the locale have been developed.	2. visitors; 3. contractor and construction personnel; and 4. other persons who may be in the public access areas, on or passing through the site, or within the owner controlled area. ITAAC Element addressed in: COL EP II.J.1.		for 24-hour staffing requirements. 10.1.4 Demonstrate the ability to perform assembly and accountability for all onsite individuals within 30 minutes of an emergency requiring protected area assembly and accountability. 10.1.5 Demonstrate the ability to perform site dismissal. 10.1.6 Demonstrate the ability to provide warnings and instructions to individuals outside the protected area, but within the Owner Controlled Area.
	10.2 The means exist to radiological monitor people evacuated from the site. [J.3]	10.2 A test of the emergency plan implementing procedures will be performed.	10.2 Demonstrate the ability to perform radiological monitoring of people evacuated from the site during a drill or exercise.
	10.3 The means exists to notify and protect all segments of the transient and resident population. [J.10]	10.3 An analysis of offsite emergency plans will be performed.	10.3 State and local plans or procedures provide methods to notify and protect all segments of the transient and resident population.
11.0 Radiological Exposure Control			
10 CFR 50.47(b)(11) – Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity PAGs.	11.1 The means exists to provide onsite radiation protection. [K.2]	11.1 A test will be performed of the capabilities.	11.1 Note: Demonstration of the ability to provide onsite radiation protection during an emergency is addressed in Acceptance Criteria 9.1.B.1 and 9.1.B.2 and under exercise/drill objectives and Performance Criteria identified in Acceptance Criteria 14.1.1.E.1 and 14.1.1.E.2.
	11.2 The means exists to provide 24-hour-per-day capability to determine the doses received by emergency personnel and maintain dose records. [K.3]	11.2 A test will be performed of the capabilities.	11.2 Note: Demonstration of the ability to determine the doses received by Detroit Edison emergency workers and to maintain dose records continuously during an emergency is addressed in Acceptance Criterion 9.1.B.2 and under exercise/drill objectives and Performance Criteria

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			identified in Acceptance Criterion 14.1.1.E.2.
	11.3 The means exists to decontaminate relocated onsite and emergency personnel, including waste disposal. [K.5.b, K.7]	11.3 A test will be performed of the capabilities.	11.3 Demonstrate the ability to decontaminate relocated onsite and Detroit Edison emergency workers, including waste disposal, during a drill or exercise.
	11.4 The means exists to provide onsite contamination control measures. [K.6]	11.4 A test will be performed of the capabilities.	11.4 Demonstrate the ability to perform onsite contamination control measures during a drill or exercise.
12.0 Medical and Public Health Support			
10 CFR 50.47(b)(12) – Arrangements are made for medical services for contaminated, injured individuals.	12.1 Arrangements have been implemented for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake. [L.1]	12.1 An analysis of letters of agreement will be performed.	12.1 Arrangements have been implemented with Mercy Memorial Hospital in Monroe Michigan, and Oakwood Southshore Medical Center in Trenton, Michigan, for evaluation of radiation exposure and uptake.
	12.2 The means exists for onsite first aid capability. [L.2]	12.2 A test will be performed of the capabilities.	12.2 Demonstrate the ability to provide onsite first aid during an emergency.
	12.3 Arrangements have been implemented for transporting victims of radiological accidents, including contaminated injured individuals, from the site to offsite medical support facilities. [L.4]	12.3 An analysis of letters of agreement will be performed.	12.3 Arrangements have been implemented for transporting victims of radiological accidents, including contaminated injured individuals, from the site to offsite medical support facilities.
13.0 Recovery and Reentry Planning and Post-Accident Operations			
10 CFR 50.47(b)(13) – General plans for recovery and reentry are developed.	Not used. Provided for consistency with RG 1.206, Table C.II.1-B1, "Emergency Planning—Generic Inspection, Test, Analysis, and Acceptance Criteria (EP-ITAAC)," ITAAC numbering scheme.	Not used. Provided for consistency with RG 1.206, Table C.II.1-B1, "Emergency Planning—Generic Inspection, Test, Analysis, and Acceptance Criteria (EP-ITAAC)," ITAAC numbering scheme.	Not used. Provided for consistency with RG 1.206, Table C.II.1-B1, "Emergency Planning—Generic Inspection, Test, Analysis, and Acceptance Criteria (EP-ITAAC)," ITAAC numbering scheme.

Table 3-1
ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
14.0 Exercises and Drills			
10 CFR 50.47(b)(14) – Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.	14.1 Licensee conducts a full participation exercise to evaluate major portions of emergency response capabilities, which includes participation by each State, local and provincial agency within the plume exposure EPZ, and each State and provincial agency within the ingestion exposure EPZ. [N.1] ITAAC Element addressed in: COL EP II.N.1.	14.1 A full participation exercise (test) will be conducted within the specified time periods of Appendix E to 10 CFR Part 50.	14.1.1 The exercise is completed within the specified time periods of Appendix E to 10 CFR Part 50, onsite exercise objectives listed below have been met, and there are no uncorrected onsite exercise deficiencies. *A. Accident Assessment and Classification* 1. Demonstrate the ability to identify initiating conditions, determine emergency action level (EAL) parameters, and correctly classify the emergency throughout the exercise. Performance Criterion: a. Determine the correct highest emergency classification level based on events which were in progress, considering past events and their impact on the current conditions, within 15 minutes of indications for an emergency event. *B. Notification* 1. Demonstrate the ability to alert, notify and mobilize site emergency response personnel. Performance Criteria: a. Complete the designated actions in accordance with emergency plan implementing procedures and perform the announcement within 15 minutes of the initial event classification for an Alert or higher b. Mobilize site emergency responders in accordance with emergency plan implementing procedures within 15 minutes of the initial event classification for an Alert or higher. 2. Demonstrate the ability to notify responsible State and local government

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			agencies within 15 minutes and the NRC within 60 minutes after declaring an emergency. Performance Criteria: a. Transmit information in accordance with approved emergency plan implementing procedures beginning within 15 minutes after event classification. b. Transmit information in accordance with approved emergency plan implementing procedures, beginning within 60 minutes after last transmittal for a follow-up notification to State and local authorities. c. Transmit information in accordance with emergency plan implementing procedures immediately following state and local notification and within 60 minutes of event classification for an initial notification of the NRC. 3. Demonstrate the ability to warn or advise onsite individuals of emergency conditions. Performance Criteria: a. Initiate notification of onsite individuals within 15 minutes of notification.1. *C. Emergency Response* 1. Demonstrate the capability to direct and control emergency operations. Performance Criterion: a. Command and control is demonstrated by the control room in the early phase of the emergency, and the technical support center (TSC) within 60 minutes of declaration of an Alert or higher emergency classification. 2. Demonstrate the ability to transfer emergency direction from the control room

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			(simulator) to the TSC upon activation. Performance Criteria: a. Turnover briefings are conducted in accordance with emergency plan implementing procedures. b. Documentation of transfer of duties is completed in accordance with emergency plan implementing procedures. 3. Demonstrate the ability to prepare for 24-hour staffing requirements. Performance Criterion: a. Complete 24-hour staff assignments. 4. Demonstrate the ability to perform assembly and accountability for all onsite individuals within 30 minutes of an emergency requiring protected area assembly and accountability. Performance Criterion: a. Protected area (PA) personnel assembly and accountability completed within 30 minutes of an emergency requiring PA assembly and accountability. *D. Emergency Response Facilities* 1. Demonstrate activation of the operational support center (OSC), and full functional operation of the TSC and EOF within 60 minutes declaration of Alert or higher emergency classification. Performance Criterion: a. The TSC, EOF and OSC are activated within about 60 minutes of the initial notification. 2. Demonstrate the adequacy of equipment, security provisions, and habitability precautions for the TSC, OSC and EOF as appropriate. Performance Criteria: a. Emergency equipment in the

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			emergency response facilities as specified in emergency plan implementing procedures was available to emergency responders. b. The Security Force implements and follows applicable emergency plan implementing procedures. c. he Radiation Protection Coordinator implements designated responsibilities in accordance with emergency plan implementing procedures if an onsite/offsite release has occurred. 3. Demonstrate the adequacy of communications for all emergency support resources. Performance Criteria: a. Emergency response facility personnel are able to operate communication systems in accordance with emergency plan implementing procedures. b. Clear primary and backup communications links are established and maintained for the duration of the exercise. *E. Radiological Assessment and Control* 1. Demonstrate the ability to obtain onsite radiological surveys and samples. Performance Criteria: a. Radiation Protection Technicians demonstrate the ability to obtain appropriate instruments (range and type) and perform surveys. b. Airborne samples are taken in accordance with emergency plan implementing procedures. 2. Demonstrate the ability to continuously monitor and control radiation exposure to emergency workers.

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			Performance Criteria: a. Emergency workers are issued self reading dosimeters when radiation levels require, and exposures are controlled to 10 CFR Part 20 limits (unless the Emergency Director authorizes emergency limits). b. Exposure records are available c. Emergency workers include Security and personnel within all emergency facilities. 3. Demonstrate the ability to assemble and deploy field monitoring teams within 60 minutes from the decision to do so. Performance Criterion: a. One offsite Radiological Emergency Team (RET) is ready to be deployed within 15 - 30 minutes of their arrival. In addition, an offsite monitoring team must be able to be dispatched within 60 minutes of an Alert or higher emergency classification. 4. Demonstrate the ability to collect and disseminate field team data. Performance Criteria: a. RET collects data for dose rate and airborne radioactivity levels in accordance with emergency plan implementing procedures. b. RET communicates data to the TSC and/or EOF in accordance with emergency plan implementing procedures. 5. Demonstrate the ability to develop dose projections. Performance Criterion: a. Timely and accurate dose projections are performed in accordance with emergency plan implementing procedures.

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			6. Demonstrate the ability to make the decision whether to issue radioprotective drugs (KI) to Detroit Edison emergency workers. Performance Criterion: a. KI is taken (simulated) if the estimated dose to the thyroid will exceed 25 rem committed dose equivalent (CDE). 7. Demonstrate the ability to develop appropriate protective action recommendations (PARs) and notify appropriate authorities within 15 minutes of development. Performance Criteria: a. Total effective dose equivalent (TEDE) and CDE dose projections from the dose assessment computer code are compared in accordance with emergency plan implementing procedures. b. PARs are developed within 15 minutes of data availability. c. PAR's are transmitted via voice or fax within 15 minutes of event classification and/or PAR development. *F. Public Information* 1. Demonstrate the capability to develop and disseminate clear, accurate, and timely information to the news media in accordance with emergency plan implementing procedures. Performance Criteria: a. The Joint Information Center (JIC) is activated within 60 minutes following the declaration of a Site Area Emergency or higher classification. b. Follow-up information is provided to the news media, during scheduled news conferences and media

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			briefings. 2. Demonstrate the capability to establish and effectively operate rumor control in a coordinated fashion. Performance Criteria: a. Calls are answered in a timely manner with the correct information, in accordance with emergency plan implementing procedures. b. Calls are returned or forwarded, as appropriate, to demonstrate responsiveness. c. Rumors are identified and addressed in accordance with emergency plan implementing procedures. *G. Evaluation* 1. Demonstrate the ability to conduct a post-exercise critique, to determine areas requiring improvement and corrective action. Performance Criteria: a. An exercise time line is developed, followed by an evaluation of the objectives. b. Significant problems in achieving the objectives are discussed to ensure understanding of why objectives were not fully achieved. c. Recommendations for improvement in non-objective areas are discussed. 14.1.2 Onsite emergency response personnel are mobilized in sufficient number to fill the emergency positions identified in the Fermi 3 Combined License Application Emergency Plan, section II.B, Emergency Response Organization, and they successfully perform their assigned responsibilities as outlined in Acceptance

Table 3-1 ITAAC For Emergency Planning			
Planning Standard	**EP Program Elements**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			Criterion 14.1.1.D. 14.1.3 The exercise is completed within the specified time periods of Appendix E to 10 CFR Part 50, offsite exercise objectives have been met, and there are either no uncorrected offsite exercise deficiencies or a license condition requires offsite deficiencies to be addressed prior to operation above 5 percent of rated power.
15.0 Radiological Emergency Response Training			
10 CFR 50.47(b)(15) –Radiological emergency response training is provided to those who may be called upon to assist in an emergency.	15.1 Site-specific emergency response training has been provided for those who may be called upon to provide assistance in the event of an emergency. [O.1]	15.1 An inspection of training records will be performed.	15.1 Site-specific emergency response training has been provided for local fire departments, law enforcement, ambulance, and hospital personnel.
16.0 Responsibility for the Planning Effort: Development, Periodic Review, and Distribution of the Plan			
10 CFR 50.47(b)(16) – Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.	16.1 The emergency response plans have been forwarded to all organizations and appropriate individuals with responsibility for implementation of the plans. [P.5]	16.1 An inspection of the distribution letter will be performed.	16.1 The Fermi 3 Combined License Application Emergency Plan has been forwarded to the Michigan State Police, Michigan Department of Environmental Quality, Michigan Department of Health, Monroe County Emergency Management, Wayne County Emergency Management and Province of Ontario.
17.0 Implementing Procedures			
10 CFR Part 50, App. E.V – No less than 180 days prior to the scheduled issuance of an operating license for a nuclear power reactor or a license to possess nuclear material, the applicant's detailed implementing procedures for its emergency plan shall be submitted to the Commission.	17.1 The licensee has submitted detailed implementing procedures for its emergency plan no less than 180 days prior to fuel load.	17.1 An inspection of the submittal letter will be performed.	17.1 Detroit Edison has submitted detailed implementing procedures for the onsite emergency plan to the NRC no less than 180 days prior to fuel load.

4. Site-Specific ITAAC

The site-specific ITAAC are provided in Table 4-1 through 4-8.

4.1 ITAAC for Fill Concrete Under Seismic Category I Structure

Compactable backfill will not be placed under Fermi 3 seismic Category I structures. ITAAC for fill concrete placed under seismic Category I structures to a thickness greater than 1.5 meters (5 feet) are provided in Table 4-1. The licensee shall perform and satisfy the ITAAC defined in Table 4-1 (from Fermi 3 COL Application Part 10, Table 2.4.1-1).

Table 4-1
ITAAC for Fill Concrete Under Seismic Category I Structures

Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
The foundation grade for the fire water service complex (FWSC) will be established using fill concrete. Fill concrete placed under Seismic Category I Structures to a thickness greater than 5 feet is designed and tested as specified in FSAR Subsection 2.5.4.5.4.2.	Testing will be performed to determine the mean compressive strength for the fill concrete.	A report exists that demonstrates that the mean 28-day compressive strength of the fill concrete is equal to, or greater than, 31 MPa (4,500 psi).

4.2 ITAAC for Backfill Surrounding Seismic Category I Structures

The ITAAC for compacted backfill surrounding the embedded walls for seismic Category I structures is provided in Table 4-2. The licensee shall perform and satisfy the ITAAC defined in Table 4-2 (from Fermi 3 COL Application Part 10, Table 2.4.2-1).

Table 4-2
ITAAC for Backfill Surrounding Seismic Category I Structures

Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
1. The engineering properties of backfill material surrounding Seismic Category I structures are equal to or exceed the FSAR Subsection 2.5.4.5.4.2 requirements.	Laboratory tests and field measurements to evaluate the engineering properties of the backfill will be performed. Laboratory testing will include: • Relative density or Proctor tests for density, γ • Direct shear tests for angle of internal friction Field measurements will include: • In-place density tests for density, γ	An engineering report exists that concludes that the engineering properties of backfill material surrounding Seismic Category I structures are equal to or exceed FSAR Subsection 2.5.4.5.4.2 requirements as follows: • Angle of Internal Friction: ≥ 35 degrees • Product of peak ground acceleration, α, (in g), Poisson's ratio, v, and density, γ: α(0.95v+0.65)γ: 1,220 kg/m^3 (76 lbf/ft^3) maximum • Soil Density, γ: 2,000 kg/m^3 (125 lbf/ft^3) minimum

4.3 ITAAC for Plant Service Water System

The site-specific ITTAC for the plant service water system are related to plant service water reserve storage capacity as listed in Table 4-3. The licensee shall perform and satisfy the ITAAC defined in Table 4-3 (from Fermi 3 COL Application Part 10, Table 2.4.3-1).

Table 4-3
ITAAC for Plant Service Water Reserve Storage Capacity

Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
1.The volume of water in the PSWS basin shall be sufficient such that:		
a. No active makeup shall be necessary to remove 2.02 x 107 MJ (1.92 x 1010 BTU) over a period of seven days.	a. Inspections and analysis will be performed of the PSWS basin and cooling towers.	a. A report exists and concludes that the volume of water in the PSWS basin is sufficient such that no active makeup is necessary to remove 2.02 x 10^7 MJ (1.92 x 10^{10} BTU) over a period of 7 days.
b. The PSWS pumps must have sufficient available net positive suction head at the pump suction location for the lowest probable water level of the heat sink.	b. Inspections and analysis will be performed of the PSWS basin.	b. A report exists and concludes that the PSWS pumps have sufficient available net positive suction head at the pump suction location for the lowest probable water level of the heat sink.

4.4 Offsite Power Systems ITAAC

Table 4-4 provides the site-specific offsite power ITAAC. The licensee shall perform and satisfy the ITAAC defined in Table 4-4 (from Fermi 3 COL Application Part 10, Table 2.4.8-1).

Table 4-4
ITAAC for offsite Power Systems

Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
1.Independent offsite power sources supply electric power from the transmission network to the interface with the onsite plant power system (PPS)		
a. A minimum of two offsite power circuits are provided to the interface with the onsite PPS and are physically separate.	a. Inspections of the as-built offsite power supply transmission system will be performed.	a. A report exists and concludes the following inspection results: i) At least two offsite transmission circuits are provided to the interface with the onsite PPS. ii) The two offsite power circuits are physically separated by distance or physical barriers so as to minimize to the extent practical the likelihood of their simultaneous failure under design basis conditions. iii) The two offsite power circuits do not have a common takeoff structure or use a common structure for support.
b. The two offsite power circuits interfacing with the onsite PPS are electrically independent.	b. Test of the as-built offsite power system will be conducted by providing a test signal in only one offsite power circuit at a time.	b. A report exists and concludes that a test signal exists in only the circuit under test.
c. The breaker control power. Instrumentation and control circuits for the two offsite Dower circuits interfacing with the onsite PPS are electrically independent.	c. Tests of the as-built offsite breaker control power. Instrumentation and control circuits will be conducted by providing a test signal in only one offsite power circuit at a time.	c. A report exists and concludes that a test signal exists in only the circuit under test.
2. At least two offsite power circuits interfacing with the onsite portions of the PPS are each adequately rated to supply necessary load requirements during design basis operating modes.	2. Analyses of the offsite power system will be performed to evaluate the as-built ratings of each offsite power circuit interfacing with the onsite portions of the PPS against the load requirements determined in DCD ITAAC 2.13.1-2, Item, 9.	2. A report exists and concludes that at least two offsite power circuits from the transmission network up to the interface with the onsite portions of the PPS are each rated to supply the load requirements, during design basis operating modes, of their respective safety-related and nonsafety-related load groups.
3. Under normal steady state operation of the transmission system, the offsite portion of the PPS is capable of supplying required voltage to the interface with the onsite portions of the	3. Analyses of the as-built offsite portion of the PPS will be performed to evaluate the capability of each offsite power circuit to supply the voltage requirements at the interface with the onsite portion	3. A report exists and concludes that as-built offsite portion of the PPS, under normal steady state operation of the transmission system, is capable of supplying voltage at the interface with the

PPS that will support operation of safety-related loads during design basis operating modes.	of the PPS determined in DCD ITAAC 2.13.1-2, Item 9.	onsite portions of the PPS that will support operation of safety-related loads during design basis operating modes.
4. Under normal steady state operation of the transmission system, the offsite portion of the PPS is capable of supplying required frequency to the interface with the onsite portions of the PPS that will support operation of safety-related loads during design basis operating modes.	4. Analyses of the as-built offsite portion of the PPS will be performed to evaluate the capability of each offsite power circuit to supply the frequency requirements at the interface with the onsite portions of the PPS determined in DCD ITAAC 2.13.1-2, Item 9.	4. A report exists and concludes that as-built offsite portion of the PPS, under normal steady state operation of the transmission system, is capable of supplying required frequency at the interface with the onsite portions of the PPS that will support operation of safety-related loads during design basis operating modes.
5. The fault current contribution of the offsite portion of the PPS is compatible with the interrupting capability of the onsite short circuit interrupting devices.	5. Analyses of the as-built offsite portion of the PPS will be performed to evaluate the fault current contribution of each offsite power circuit at the interface with the onsite portions of the PPS.	5. A report exists and concludes the short circuit contribution of the as-built offsite portion of the PPS at the interface with the onsite portions of the PPS is compatible with the interrupting capability of the onsite fault current interrupting devices as determined in DCD ITAAC 2.13.1-2, Item 10.

4.5 Turbine Building ITAAC

Table 4-5 provides the site-specific turbine building (TB) ITAAC. The licensee shall perform and satisfy the ITAAC defined in Table 4-5 (from Fermi 3 COL Application Part 10, Table 2.4.15-1).

Table 4-5
ITAAC for the Turbine Building

Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
1. Determine if the Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1, Table 5.1-1.	Fermi 3 soil properties will be determined.	The Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1, Table 5.1-1.
2. If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1, Table 5.1-1, then perform a Fermi 3 site-specific seismic soil-structure interaction (SSI) analysis for the turbine building (TB) following the method, as specified for seismic Category I structures, including the load combinations and the acceptance criteria, for loads associated with earthquakes. Determine whether the Fermi 3 site-specific SSI analysis is bounded by the TB seismic analysis specified in DCD Tier 1 ITAAC Table 2.16.8-1.	Site-specific SSI analyses for the TB will be conducted if necessary.	If the Fermi 3 soil properties are not abounded by the site parameters in DCD Tier 1, Table 5.1-1, the site-specific SSI analysis for the TB is bounded by the TB seismic analysis specified in the DCD Tier 1, ITAAC Table 2.16.8-1.

4.6 Radwaste Building ITAAC

Table 4-6 provides the site-specific radwaste building (RWB) ITAAC. The licensee shall perform and satisfy the ITAAC defined in Table 4-6 (from Femi 3 COL Application Part 10, Table 2.4.16-1).

Table 4-6
ITAAC for the Radwaste Building

Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
1. Determine if the Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1, Table 5.1-1.	Fermi 3 soil properties will be determined. Site-specific SSI and SSSI analyses of the RWB will be conducted, if necessary.	The Fermi 3 soil properties either (1) meet the site parameters in DCD Tier 1, Table 5.1-1, or (2) site-specific SSI analyses will be conducted. The results of Fermi 3 site-specific seismic SSI analyses of the RW are compared with the ESBWR RW seismic responses presented in DCD Tier 1, ITAAC Table 2.16.9-1 seismic analyses to confirm the Fermi 3 SSI is adequate for the ESBWR RWB seismic design.
2. If the Fermi 3 soil properties are not bounded by the site parameter in DCD Tier 1, Table 5.1-1, then perform a Fermi 3 site-specific seismic soil-structure interaction (SSI) analysis for the Radwaste Building (RW) following the method, as specified for seismic Category I structures, including the load combinations and the acceptance criteria, for loads associated with earthquakes. Determine whether the Fermi 3 site-specific SSI analysis is bounded by the RW seismic analysis specified in DCD Tier 1, ITAAC Table 2.16.9-1.	Site-specific analyses for the RW will be conducted if necessary.	If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1, Table 5.1-1, the site-specific SSI analysis for the RW is bounded by the RW seismic analysis specified in the DCD Tier 1, ITAAC Table 2.16.9-1.

4.7 Service Building ITAAC

Table 4-7 provides the site-specific service building (SB) ITAAC. The licensee shall perform and satisfy the ITAAC defined in Table 4-7 (from Fermi 3 COL Application Part 10, Table 2.4.17-1).

Table 4-7
ITAAC for the Service Building

Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
1. Determine if the Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1, Table 5.1-1.	Fermi 3 soil properties will be determined.	The Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1, Table 5.1-1.
2. If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1, Table 5.1-1, then perform a Fermi 3 site-specific seismic soil-structure interaction (SSI) analysis for the Service Building (SB) following the method, as specified for seismic Category I structures, including the load combinations and the acceptance criteria, for loads associated with earthquakes. Determine whether the Fermi 3 site-specific SSI analysis is bounded by the SB seismic analysis specified in DCD Tier 1, ITAAC Table 2.16.10-1.	Site-specific SSI analyses for the SB will be conducted if necessary.	If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1, Table 5.1-1, the site-specific SSI analysis for the SB is bounded by the SB seismic analysis specified in the DCD Tier 1, ITAAC Table 2.16.10-1.

4.8 Ancillary Diesel Building ITAAC

Table 4-8 provides the site-specific ancillary diesel building (ADB) ITAAC. The licensee shall perform and satisfy the ITAAC defined in Table 4-8 (from Fermi 3 COL Application Part 10, Table 2.4.18-1).

Table 4-8
ITAAC for the Ancillary Diesel Building

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. Determine if the Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1, Table 5.1-1.	Fermi 3 soil properties will be determined.	The Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1, Table 5.1-1.
2. If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1, Table 5.1-1, then perform a Fermi 3 site-specific seismic soil-structure interaction (SSI) analysis for the Ancillary Diesel Building (ADB) following the method, as specified for seismic Category I structures, including the load combinations and the acceptance criteria , for loads associated with earthquakes . Determine whether the Fermi 3 site-specific SSI analysis is bounded by the ADB seismic analysis specified in DCD Tier 1, ITAAC Table 2.16.11-1.	Site-specific SSI analyses for the ADB will be conducted if necessary.	If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1, Table 5.1-1, the site-specific SSI analysis for the ADB is bounded by the ADB seismic analysis specified in the DCD Tier 1, ITAAC Table 2.16 .11-1.

A.3 Final Safety Analysis Report (FSAR) Commitments

The following FSAR commitments are identified as the responsibility of the licensee:

SER Section	Description
1.3.6	• Commitment (COM 1.1-001) – Construction and startup schedules will be provided after the issuance of the COL once a positive decision to construct the plant. • Commitment (COM 1.2-001) – To the extent practical, modular construction techniques were applied during ABWR construction projects will be adapted and/or modified for use during the ESBWR construction. Modularization reviews will be performed to develop a plan for bringing the ABWR experience into the ESBWR. Once completed, the results of the modularization reviews will be used as guidance to develop the detailed design of the areas affected by modularization. • Commitment (COM 1.4-001) – The primary contractor for the site engineering was not yet selected at the time of the COLA submittal; this information will be supplied in the FSAR update following the selection. • Commitment (COM 1.12-001) – Managerial and administrative controls are utilized to identify preventive and mitigative measures and to provide notification of hazardous activity initiation, in order to prevent or minimize exposure of SSCs to the identified hazards. Applicable managerial and administrative controls are listed in Table 1.12-203.
2.3.3.5	Commitment (COM 2.3-003) – The new meteorological tower will be operational for at least one year before the decommissioning of the existing onsite meteorological tower. The meteorological data recorded concurrently from the current and new onsite meteorological towers will undergo a detailed analysis to ensure that the meteorological parameters measured at the new meteorological tower are representative of the atmospheric conditions at the Fermi site.
2.4.2.5	Commitment (COM 2.4-002) – Detailed design will incorporate best industry practices included in "The Guidebook of Best Management Practices for Michigan Watersheds" to provide added erosion protection to the slopes, even though they receive very little runoff. These practices include mulching, seeding, sodding, soil management, trees, shrubs, and ground covers. To be conservative, erosion protection methods selected will be based on runoff velocities for a local PMP condition not taking credit for the storm water drains. Where necessary, erosion protection will be provided for breaking waves during a postulated surge/seiche event.
2.4.12.5	Commitment (COM 2.4-12-001) – However, prior to the commencement of construction activities, the monitoring well network will be evaluated to determine if any significant data gaps are created by the abandonment of existing wells. As part of the detailed design for Fermi 3, the present groundwater monitoring programs will be evaluated with respect to the addition of Fermi 3 to determine if any modification of the existing programs is required to adequately monitor plant effects on the groundwater.
2.5.4.5	Commitment (COM 2.5.4-001) – Develop a contingency plan for mitigation of any settlement before the start of the Fermi 3 construction.

3.7.4.5	• Commitment (COM 3.7-001) – Implement the seismic monitoring program described in this subsection [ESBWR DCD Subsection 3.7.4.5], including the necessary test and operating procedures, before the receipt of fuel onsite.
3.9.5	• Commitment (COM 3.9-001) – For reactor internals other than the steam dryer, the comprehensive vibration assessment program will be developed and implemented as described in DCD Appendix 3L with no departures. The vibration measurement and inspection programs will comply with the guidance specified in RG 1.20, Revision 3, consistent with the Fermi 3 reactor internals classification. A summary of the vibration analysis program and description of the vibration measurement (including measurement locations and analysis predictions) and inspection phases of the comprehensive vibration inspection program will be submitted to the NRC six months prior to implementation. • Commitment (COM 3.9-002) – The equipment stress reports identified in this DCD will be completed within six months of completion of DCD ITAAC Table 3.1-1. • Commitment (COM 3.9-003) – For the ASME Class 1, 2, and 3 systems listed in DCD Tier 1 Section 3.1 that contain snubbers, a plant-specific table will be prepared in conjunction with the closure of the system-specific ITAAC for the piping and component design and will include the following specific snubber information. • Commitment (COM 3.9-004) – The FSAR will be revised as necessary in a subsequent update to address the results of the stress analysis. • Commitment (COM 3.9-005) – This information will be included in the FSAR as part of a subsequent FSAR update. • Commitment (COM 3.9-006) – For reactor internals other than the steam dryer, the preliminary and final reports (as necessary) that together summarize the results of the vibration analysis, the measurements, and the inspection programs will be submitted to the NRC within 60 and 180 days, respectively, following the completion of the programs.
3.10.5	• Commitment (COM 3.10-003) – Detroit Edison shall submit to the NRC, no later than 1 year after issuance of the combined license or at the start of construction as defined in 10 CFR 50.10(a), whichever is later, its implementation schedules for completing of the following ITAACs. Detroit Edison shall submit updates to the ITAAC schedules every 6 months thereafter and, within 1 year of its scheduled date for initial loading of fuel, and shall submit updates to the ITAAC schedules every 30 days until the final notification is provided to the NRC under paragraph (c)(1) of this section [10 CFR 52.99]. • Commitment (COM 3.10-001) – The Dynamic Qualification Report and documentation that describe the seismic and dynamic qualification methods will be made available for NRC staff review, inspection, and audit. Information that verifies the seismic and dynamic qualification will be made available to the NRC to facilitate reviews, inspections, and audits throughout the process. • Commitment (COM 3.10-002) – FSAR information will be revised, as necessary, as part of a subsequent FSAR update.
5.2.5.5	Commitment (COM 13.5-002) – Develop operating procedures at least six months before fuel load to allow sufficient time for plant staff familiarization and to allow NRC staff adequate time to review the procedures and to develop operator licensing examinations.

5.3.2.5	Commitment (COM 05.03-002) – Prior to fuel load, the pressure-temperature limit curves will be updated to reflect plant-specific material properties, if required.
6.4.5	The following commitments are to track implementation milestones for operator training and procedures for control room habitability. (1) Non Licensed Plant Staff Training Program – 18 months prior to scheduled fuel loading. (COM 13.4-028) (2) Reactor Operator Training Program – 18 months before the scheduled fuel loading. (COM 13.4-016) (3) Operating procedures are developed at least 6 months before the fuel loading to allow sufficient time for plant staff familiarization and to allow NRC staff adequate time to review the procedures and to develop operator licensing examinations. (COM 13.5-002)
6.6.5	The following commitments to track implementation of the PSI/ISI programs: (1) ISI – Implemented prior to commercial service (COM 13.4-024) (2) PSI – Completion prior to initial plant startup (COM 13.4-026)
8.2.5	• Commitment (COM 8.2-001) – Plant operating procedures, including off-normal operating procedures, associated with the monitoring system will be developed in accordance with FSAR Subsection 13.5.2.1 at least six months prior to fuel load. • Commitment (COM 8.2-002) – Maintenance and testing procedures, including calibration, set point determination and troubleshooting procedures, associated with the monitoring system will be developed in accordance with FSAR Subsection 13.5.2.2.6.1 prior to fuel loading. • Commitment (COM 8.2-003) – Control room operator and maintenance technician training associated with the operation and maintenance of the monitoring system will be developed in accordance with FSAR Section 13.2.1 for Reactor Operators and FSAR Section 13.2.2 for Non Licensed Plant Staff. Training will be completed prior to fuel loading.
8.3.1.5	Commitment (COM 8.3-001) – The COL Applicant will verify that owner yard scope site specific underground or inaccessible power and control cable runs to the PSWS and DG Fuel Oil Transfer System that have accident mitigation functions and are susceptible to protracted exposure to wetted environments or submergence as a result of tidal, seasonal, or weather event water intrusion are adequately identified and monitored for appropriate corrective actions under MR program described in Section 17.6.4.
9.1.4.5	Commitment (COM 9.1-001) – Fuel handling procedures are developed six months before fuel receipt to allow sufficient time for plant staff familiarization, to allow NRC staff adequate time to review procedures, and to develop operator licensing examinations.
9.2.5.5	Commitment (COM 9.2-001) – Procedures that identify and prioritize available makeup sources seven days after an accident, and provide instructions for establishing necessary connections, will be developed in accordance with the procedure development milestone in Section 13.5.

9.5.1.5	• Commitment (9.5-001) – Testing will be performed to demonstrate that the secondary fire protection pump circuit supplies a minimum of 484 m^3/hr (2,130 gpm) with sufficient discharge pressure to develop a minimum of 738 kPaG (107 psig) line pressure at the Turbine Building/yard interface boundary. This cannot be performed until the system is built. This activity will be completed prior to fuel receipt. • Commitment (COM 9.5-002) – Mechanical and electrical penetration seals and electrical raceway fire barrier systems are qualified to the requirements delineated in RG 1.189 by a recognized laboratory in accordance with the applicable guidance of NFPA 251 and/or ASTM E-119. Detailed design in this area is not complete. Specific design and certification test results for penetration seal designs and electrical raceway fire barrier systems will be available for review at least six months prior to fuel receipt. • Commitment (COM 9.5-003) – Procedures for manual smoke control will be developed as part of Fire Protection Program implementation. • Commitment (COM 9.5-004) – A compliance review of the final as-built design against the assumptions and requirements stated in the FHA will be completed prior to fuel load. • Commitment (COM 9.5-006) – Implementation of the fire brigade will be in accordance with the milestone in Section 13.4 for the Fire Protection Program. • Commitment (COM 9.5-007) – The procedures will be developed six months prior to fuel receipt and will be fully implemented prior to fuel receipt. • Commitment (COM 9A-001) – A detailed fire hazards analysis of the yard area that is outside the scope of the certified design cannot be completed until cable routing is performed during final design. This information will be provided six months prior to fuel load. • Commitment (COM 9A-002) – A detailed fire hazards analysis of the yard area that is outside the scope of the certified design, which includes the Service Building, cannot be completed until cable routing is performed during final design. This information will be provided 6 months prior to fuel load. • Commitment (COM 9A-003) – A detailed fire hazards analysis of the yard area that is outside the scope for the certified design, which includes the Service Water/Water Treatment Building, cannot be completed until cable routing is performed during final design. This information will be provided six months prior to fuel load.
13.5.1.5	Commitment (COM 13.5-001) – Procedures are developed prior to fuel load to allow sufficient time for plant staff familiarization and to allow NRC staff adequate time to review the procedures and to develop operator licensing examinations.
13.5.2.5	• Commitment (13.5-001) – Procedures are developed prior to fuel loading to allow sufficient time for plant staff familiarization and to allow NRC staff adequate time to review the procedures and to develop operator licensing examinations. • Commitment (13.5-002) – Operating procedures are developed at least 6 months prior to fuel loading to allow sufficient time for plant staff familiarization and to allow NRC staff adequate time to review the procedures and to develop operator licensing examinations. • Commitment (13.5-003) – Submit the procedure development program, as

	described in the PGP for EOPs, to the NRC at least three months prior to the planned date to begin formal operator training on the EOPs. • Commitment (13.5-004) – Develop an initial program based on service conditions, experience with comparable equipment and vendor recommendations is developed prior to fuel loading.
13.6.5	The applicant identified the following commitments to track implementation of the Physical Security Program, the Safeguards Contingency Program, and the Training and Qualification Program: 1. Physical Security Program - Implemented prior to fuel onsite [COM 13.4-017] 2. Safeguards Contingency Program - Implemented prior to fuel onsite [COM 13.4-017] 3. Training and Qualification Program - Implemented prior to fuel onsite [COM 13.4-017]
13.7.5	Commitment (COM 13.7-001) – Prior to the issuance of a Combined License for Fermi 3, Detroit Edison will review and revise, as necessary, the Fermi 3 construction phase FFD Program should substantial revisions occur to either NEI 06-06 following NRC endorsement or to the requirements of 10 CFR Part 26.
13.8.5	Commitment (13.5-032) – Develop and implement a CSP prior to fuel on-site (Protected Area).
14.3.5 and 14.3.5	• Commitment (3.10-003) – Detroit Edison shall submit to the NRC, no later than 1 year after issuance of the combined license or at the start of construction as defined in 10 CFR 50.10(a), whichever is later, its implementation schedules for completing of the following ITAACs. Detroit Edison shall submit updates to the ITAAC schedules every 6 months thereafter and, within 1 year of its scheduled date for initial loading of fuel, shall submit updates to the ITAAC schedules every 30 days until the final notification is provided to the NRC under paragraph (c)(1) of this section. • Commitment (14.3-001) – For piping (DAC) ITAAC; (1) the ASME Code design reports for safety-related piping packages and (2) the as-designed Pipe Break Analysis Report will be completed per ESBWR DCD ITAAC Table 3.1-1 for all the applicable systems in order to support closure of the DAC ITAAC. Information will be made available for NRC review, inspection, and audit on a system basis. Information will be made available to the NRC to facilitate reviews, inspections, and audits throughout the process. • Commitment (14.3-002) – For human factors engineering DAC, HFE Design Acceptance Criteria ITAAC consists of a series of results summary reports which verify that the specific associated Design Commitment is met. The summary reports will be made available at each stage for NRC review, inspection, and audit on an element by element basis. Information (procedures and test programs) will be made available to the NRC to facilitate reviews, inspections, and audits throughout the process. • Commitment (14.3-003) – For instrumentation and controls DAC, the set of ESBWR digital I&C Design Acceptance Criteria ITAAC establishes a phased Design Acceptance Criteria ITAAC closure process. Procedures and test programs necessary to demonstrate that the Design Acceptance Criteria ITAAC requirements are met will be used at each phase to certify to the NRC that the design is in compliance with the certified design. Information will be made

	available for NRC review, inspection, and audit on a system basis. Information will be made available to the NRC to facilitate reviews, inspections, and audits throughout the process.
18.5	Commitment (COM 18.13-001) – The HPM program will be implemented prior to the beginning of the first licensed operator training class.
19.2.5	Commitment (COM 19.2-001) – As-built SSC HCLPF values will be compared to those assumed in the ESBWR seismic margin analysis. Deviations from the HCLPF values or other assumptions in the seismic margins evaluation will be analyzed to determine if any new vulnerabilities have been introduced. This comparison and analysis will be completed before fuel load.
19.A.5	The following commitment to meet the requirements of 10 CFR 50.54(hh)(2) and 10 CFR 52.80: • Commitment (COM 13.4-033) – Develop Mitigative Strategies Description and Plans before the fuel loading authorization per the 10 CFR 52.103(g).