

DTE Energy
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DTE Energy



10 CFR 52.79

February 12, 2014
NRC3-14-0004

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

- References:
- 1) Fermi 3
Docket No. 52-033
 - 2) Letter from John Klos (USNRC) to Peter W. Smith (DTE Electric), "Request for Additional Information Letter Number 89 Related to Chapter 13 for the Fermi 3 Combined License Application," dated January 16, 2014

Subject: DTE Electric Company Response to NRC Request for Additional Information Letter Number 89

In Reference 2, the NRC requested additional information to support the review of certain portions of the Fermi 3 Combined License Application (COLA). The Request for Additional Information (RAI) in Reference 2 is related to physical protection requirements for the use and transport of category 1 and category 2 quantities of radioactive material. The response to RAI 13.06.01-56 is provided in the attachment to this letter. Information contained in this response will be incorporated into a future COLA submittal as described in the RAI response.

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If you have any questions, or need additional information, please contact me at (313) 235-3341.

I state under penalty of perjury that the foregoing is true and correct. Executed on the 12th day of February 2014.

Sincerely,



Peter W. Smith, Director
Nuclear Development – Licensing and Engineering
DTE Electric Company

Attachment: Response to RAI Letter Number 89 (Question No. 13.06.01-56)

cc: Adrian Muniz, NRC Fermi 3 Project Manager
Tekia Govan, NRC Fermi 3 Project Manager
John Klos, NRC Fermi 3 Project Manager
Bruce Olson, NRC Fermi 3 Environmental Project Manager (w/o attachments)
Fermi 2 Resident Inspector (w/o attachments)
NRC Region III Regional Administrator (w/o attachments)
NRC Region II Regional Administrator (w/o attachments)
Supervisor, Electric Operators, Michigan Public Service Commission (w/o attachments)
Michigan Department of Natural Resources and Environment
Radiological Protection Section (w/o attachments)
Regina A. Borsh, Dominion Energy, Inc.
Barry C. Bryant, Dominion Energy, Inc.
Patricia L. Campbell, General Electric

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**Attachment to
NRC3-14-0004
(22 pages)**

**Response to RAI Letter Number 89
(eRAI Tracking No. 7360)**

RAI Question No. 13.06.01-56

NRC RAI 13.06.01-56

Introduction:

On March 19, 2013, 10 CFR Part 37 rule was published in the Federal Register. The U.S. Nuclear Regulatory Commission (NRC) amended its regulations to establish security requirements for the use and transport of category 1 and category 2 quantities of radioactive material. The NRC considers these quantities to be risk significant and, therefore, to warrant additional protection. Category 1 and category 2 thresholds are based on the quantities established by the International Atomic Energy Agency (IAEA) in its Code of Conduct on the Safety and Security of Radioactive Sources, which the NRC endorses. The objective of the 10 CFR Part 37, "Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material," rule is to provide reasonable assurance of preventing the theft or diversion of category 1 and category 2 quantities of radioactive material. The regulations also include security requirements for the transportation of irradiated reactor fuel that weighs 100 grams or less in net weight of irradiated fuel. The 10 CFR Part 37 rule affects any licensee that possesses an aggregated category 1 or category 2 quantity of radioactive material, any licensee that transports these materials using ground transportation, and any licensee that transports small quantities of irradiated reactor fuel. The 10 CFR Part 37 rule compliance date is March 19, 2014.

Regulatory Basis:

(1) Subpart C of Title 10 CFR (10 CFR) Part 52, § 52.79(a)(35)(i) and (ii) requires that information submitted for combined license (COL) applications include how the applicant will meet the requirements of 10 CFR 73. Title 10 CFR 52.6, Completeness and accuracy of information, requires information provided "shall be complete and accurate in all material respects."

(2) 10 CFR 37.3 Scope (a) Subparts B and C of this part apply to any person who, under the regulations in this chapter, possesses or uses at any site, an aggregated category 1 or category 2 quantity of radioactive material. (b) Subpart D of this part applies to any person who, under 10 CFR Part 37: (1) Transports or delivers to a carrier for transport in a single shipment, a category 1 or category 2 quantity of radioactive material; or (2) Imports or exports a category 1 or category 2 quantity of radioactive material; the provisions only apply to the domestic portion of the transport.

(3) 10 CFR Part 37, Subpart C, "Physical Protection Requirements During Use" Section 10 CFR 37.41 contains the following requirements: (a)(1) Each licensee that possesses an aggregated category 1 or category 2 quantity of radioactive material shall establish, implement, and maintain a security program, (a)(2) An applicant for a new license and each licensee that would become newly subject to the requirements of this subpart upon application for modification of its license shall implement the requirements of this subpart, as appropriate, before taking possession of an aggregated category 1 or category 2 quantity of radioactive material, (a)(3) Any licensee that has not previously implemented the Security Orders or been subject to the provisions of subpart C shall provide written notification to the NRC regional office specified in § 30.6 of this chapter at least 90 days before aggregating radioactive material to a quantity that equals or exceeds the category 2 threshold. (b) General Performance Objective. Each licensee shall establish, implement, and maintain a security program that is designed to monitor and, without delay, detect, assess, and respond to an actual or attempted unauthorized access to category 1 or category 2 quantities of radioactive material. (c) Program features. Each

licensee's security program must include the program features, as appropriate, described in §§ 37.43, 37.45, 37.47, 37.49, 37.51, 37.53, and 37.55.

NRC has provided guidance for material licensees on how to comply with 10 CFR Part 37 in the form of NUREG-2155, Implementation guidance for 10 CFR Part 37, "Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material."

Fermi 3 COL application, Part 8, Security Plan, revision 5, dated September 23, 2011, ML11270A014, describes how the applicant will establish and maintain a physical protection program that satisfies the general performance objective and requirements in 10 CFR 73.55(b). As required, this program will include a security organization, which will have as its objective to provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety. As discussed above, 10 CFR 37, Subpart C requires a security program for the protection of aggregated quantities of category 1 or category 2 radioactive materials. Section 37.11(b) provides a specific exemption which states that any licensee's NRC-Licensed activities are exempt from the requirements of subpart B and C of Part 37 to the extent that its activities are included in a security plan required by Part 73. Since the applicant will be licensed to possess aggregated quantities of category 2 or greater radioactive material, it will be required to establish and maintain a security plan which meets the requirements of Part 37. This may be done either by modifying the Part 73 security plans or by developing a Part 37 security plan. In either case, the applicant may take credit for security measures already provided under the Part 73 plan. However, the Fermi 3 COL application does not describe how the requirements of 10 CFR Part 37 will be met. In addition, the applicant's Security Plan, revision 5, which consist of the Physical Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan do not describe how the requirements of 10 CFR Part 37 will be met.

(1) Provide descriptions in the Final Safety Analysis Report (FSAR), (e.g. Chapter 13), to address how the applicant, prior to taking possession of an aggregated category 1 or category 2 quantity of radioactive material will implement the requirements of 10 CFR Part 37, by establishing, implementing, and maintaining a security program for Fermi 3. The applicant should describe what procedures are in place (or to be developed) to evaluate the aggregated category 1 or category 2 quantities of radioactive materials, prior to the applicant's receiving Part 30 By Product Material sources on site, against the pertinent quantities described in 10 CFR Part 37. The applicant should describe who will be responsible for evaluating these aggregated sources and should verify that this evaluation of aggregated sources includes both licensee owned and contractor owned sources.

Response

DTE Electric will implement a 10 CFR Part 37 Physical Protection Program prior to the possession of aggregated quantities of category 1 or category 2 radioactive materials onsite. Specific changes to the Fermi 3 COLA are described below.

- Fermi 3 FSAR Table 13.4-201, "Operational Programs Required by NRC Regulations," will be revised to add the 10 CFR Part 37 Physical Protection Program (Item 24) with an implementation milestone date of prior to possession of aggregated category 1 or category 2 quantities of radioactive material. Additionally, the program source for the Radiation Protection Program (Item 10) will be revised to include reference to 10 CFR Part 37.

- Fermi 3 FSAR Subsection 13.5.2.2.8, "Security Procedures," and Subsection 13.6.2, "Security Plan," will be revised to add text relating to the 10 CFR Part 37 Physical Protection Program. Subsection 13.5.2.2.12, "10 CFR 37 Physical Protection Program Procedures," will be added to the Fermi 3 FSAR describing the implementation plans and procedures for the program.
- A 10 CFR Part 37 Physical Protection Program description will be added to the Fermi 3 FSAR as Appendix 13EE. The program description includes a discussion of the scope of the program, definitions, organizational responsibilities (including the responsibilities relating to the evaluation of both licensee owned and contractor owned aggregated sources), and programmatic controls.
- Proposed License Condition 3.5.2 of Part 10 of the Fermi 3 COLA will be revised to add requirements for implementation of the 10 CFR Part 37 Physical Protection Program.

Proposed COLA Revision

The Fermi 3 COLA will be revised as shown the attached markup.

Markup of Fermi 3 COLA
(following 17 pages)

The following markup represents how DTE Electric intends to reflect this RAI response in the next submittal of the Fermi 3 COLA. However, the same COLA content may be impacted by responses to other COLA RAIs, other COLA changes, plant design changes, editorial or typographical corrections, etc. As a result, the final COLA content that appears in a future submittal may be different than presented here.

Fermi 3 COLA
Part 2 (FSAR) Markup

Table 13.4-201 Operational Programs Required by NRC Regulations (Sheet 3 of 9)

[STD COL 13.4-1-A] [STD COL 13.4-2-A]

Item	Program Title	Program Source (Required by)	Section	Implementation	
				Milestone	Requirement
	Radiological Environmental Monitoring Program	Same as above	11.5.4.5	Prior to fuel load	License Condition [COM 13.4-010]
	Process Control Program	10 CFR 20.1301 and 20.1302 10 CFR 50.34a 10 CFR 61.55 and 61.56 10 CFR 71	11.4.2.3	Prior to fuel load	License Condition [COM 13.4-011]
10.	Radiation Protection Program	10 CFR 20.1101	12.5	<p>Prior to initial receipt of by-product, source, or special nuclear materials (excluding Exempt Quantities as described in 10 CFR 30.18) for those elements of the Radiation Protection (RP) Program necessary to support such receipt</p> <p>Prior to fuel receipt for those elements of the RP Program necessary to support receipt and storage of fuel onsite</p> <p>Prior to fuel load for those elements of the RP Program necessary to support fuel load and plant operation</p> <p>Prior to first shipment of radioactive waste for those elements of the RP Program necessary to support shipment of radioactive waste</p>	<p>License Condition [COM 13.4-012]</p> <p>[COM 13.4-013]</p> <p>[COM 13.4-014]</p> <p>[COM 13.4-015]</p>

10 CFR 37

Table 13.4-201 Operational Programs Required by NRC Regulations (Sheet 9 of 9)

[STD COL 13.4-1-A] [STD COL 13.4-2-A]

Item	Program Title	Program Source (Required by)	Section	Implementation	
				Milestone	Requirement
	Preservice Thermal Movement Inspection	10 CFR 50.55a(g) 10CFR 50.55a(b)(3)(v)	3.9.3.7.1(3)e	During initial heatup and cooldown	10 CFR 50.55a(g) ASME OM Code, ISTD (Reference 13.4-202)
	Preservice Testing Program	10 CFR 50.55a(g) 10CFR 50.55a(b)(3)(v)	3.9.3.7.1(3)e	Prior to fuel load	License condition [COM 13.4-042]
Notes: a. Snubber inservice examination is initially performed not less than two months after attaining 5% reactor power operation and will be completed within 12 calendar months after attaining 5% reactor power.					
21.	Mitigative Strategies Description and Plans	10 CFR 50.54(hh)(2) 10CFR 52.80	13.6	Prior to fuel load authorization per 10 CFR 52.103(g)	License Condition [COM 13.4-033]
22.	Lifecycle Minimization of Contamination	10 CFR 20.1406	12.3	Prior to fuel load	License Condition [COM13.4-034]
23.	SNM Material Control and Accounting Program	10 CFR 74 Part B (74.11-74.19, excl. 74.17)	13.5.2.2.11	Prior to receipt of SNM	License Condition [COM13.4-043]
24.	10 CFR Part 37 Physical Protection Program	10 CFR 37 Subparts A, B, C, D, F	13.5.2.2.8 13.5.2.2.12 13.6.2	Prior to possession of aggregated category 1 or category 2 quantities of radioactive material	10 CFR 37 [COM 13.4-044]

STD SUP 13.5-35 13.5.2.2.6.5 **Heavy Load Handling Procedures**

This topic is discussed in [Subsection 9.1.5.8](#).

STD SUP 13.5-36 13.5.2.2.7 **Material Control Procedures**

The QAPD provides a description of procedural requirements for material control.

STD SUP 13.5-37 13.5.2.2.8 **Security Procedures**

A discussion of security procedures is provided in the Security Plan.

Insert 1

The New Fuel Shipping Plan addresses the applicable 10 CFR 73.67 requirements in the event that unirradiated new fuel assemblies or components are returned to the supplying fuel manufacturer(s) facility.

STD SUP 13.5-38 13.5.2.2.9. **Refueling and Outage Planning Procedures**

Procedures provide guidance for the development of refueling and outage plans, and as a minimum address the following elements:

- An outage philosophy which includes safety as a primary consideration in outage planning and implementation
 - Separate organizations responsible for scheduling and overseeing the outage and provisions for an independent safety review team that would be assigned to perform final review and grant approval for outage activities
 - Control procedures, which address both the initial outage plan and safety-significant changes to schedule
 - Provisions that activities receive adequate resources
 - Provisions that defense-in-depth during shutdown and margins are not reduced or provisions that an alternate or backup system must be available if a safety system or a defense-in-depth system is removed from service
 - Provisions that personnel involved in outage activities are adequately trained including operator simulator training to the extent practicable, and training of other plant personnel, including temporary personnel, commensurate with the outage tasks they are to perform
-

Insert 1:

The 10 CFR Part 37 Physical Protection Program description addresses the applicable 10 CFR Part 37 requirements to provide physical protection for category 1 or category 2 quantities of radioactive material.

- The guidance described in NUMARC 91-06, "Guidelines for Industry Actions to Assess Shutdown Management," to reduce the potential for loss of reactor coolant system boundary and inventory during shutdown conditions ([Reference 13.5-203](#))
-

STD SUP 13.5-40

13.5.2.2.10 Procedure related to Refueling Cavity Integrity

Procedures will be established and implemented for:

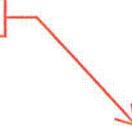
- Monitoring refueling cavity seal leakage,
- Responding to refueling cavity and buffer pool drain down events, and
- Performing periodic maintenance and inspection of the refueling cavity seal and the Main Steam and Isolation Condenser System plugs in accordance with vendor recommendations.

STD SUP 13.5-41

13.5.2.2.11 Special Nuclear Material (SNM) Material Control and Accounting Procedures

A material control and accounting system consisting of special nuclear material accounting procedures is utilized to delineate the requirements, responsibilities, and methods of special nuclear material control from the time special nuclear material is received until it is shipped from the plant. These procedures provide detailed steps for SNM shipping and receiving, inventory, accounting, and preparing records and reports. The Special Nuclear Material (SNM) Material Control and Accounting (MC&A) Program description is provided in [Appendix 13CC](#).

Insert 2



13.5.3 COL Information

STD COL 13.5-1-A

13.5-1-A Administrative Procedures Development Plan

This COL item is addressed in [Subsection 13.5.1](#).

STD COL 13.5-2-A

13.5-2-A Plant Operating Procedures Development Plan

This COL item is addressed in [Subsection 13.5.2](#).

STD COL 13.5-3-A

13.5-3-A Emergency Procedures Development

This COL item is addressed in [Subsection 13.5.2](#).

EF3 COL 13.5-4-A

13.5-4-A Implementation of the Plant Procedures Plan

This COL item is addressed in [Section 13.5](#) and [Subsection 13.5.2](#).

13.5-5-A Procedures Included in Scope of Plan

Insert 2:

STD SUP 13.5-42 13.5.2.2.12 10 CFR 37 Physical Protection Program Procedures

A 10 CFR Part 37 Physical Protection Program consisting of procedures is utilized to delineate the requirements, responsibilities, and methods associated with the physical protection of category 1 and category 2 quantities of radioactive material. These procedures provide the detailed steps for receipt, use, storage, transport, and preparation of records and reports.

13.6.1.1.8 **Testing**

Replace the last sentence in the first paragraph with the following.

STD COL 13.6-10-A The establishment of these surveillance test procedures and frequencies will be completed in accordance with the milestone for Physical Security Plan implementation (Table 13.4-201).

Replace the last sentence in the second paragraph with the following.

STD COL 13.6-11-A The establishment of these testing and maintenance milestones will be completed in accordance with the milestone for Physical Security Plan implementation (Table 13.4-201).

13.6.2 **Security Plan**

Replace this section with the following:

STD SUP 13.6-1 The Security Plans consist of the Physical Security Plan, Training and Qualification Plan, Safeguards Contingency Plan, and Cyber Security Plan. The Security Plans are submitted to the Nuclear Regulatory Commission as separate licensing documents in order to fulfill the requirements of 10 CFR 52.79(a)(35) and (36). The Security Plans meet the requirements contained in 10 CFR 26 and 10 CFR 73 and will be maintained in accordance with the requirements of 10 CFR 52.98. The Security Plans, except for the Cyber Security Plan, are categorized as Security Safeguards Information and are withheld from public disclosure pursuant to 10 CFR 73.21. The Cyber Security Plan is categorized as Security-Related Information and is withheld from public disclosure pursuant to 10 CFR 2.390.

Insert 3

The Mitigative Strategies Description and Plans are submitted to the Nuclear Regulatory Commission as a separate licensing document in order to fulfill the requirements of 10 CFR 52.80(d). The Mitigative Strategies Description and Plans meet the requirements contained in 10 CFR 50.54(hh)(2) and will be maintained in accordance with the requirements of 10 CFR 52.98. The Mitigative Strategies Description and

Insert 3:

A 10 CFR Part 37 Physical Protection Program is established, implemented, and maintained in order to protect category 1 and category 2 quantities of radioactive material from theft or diversion per 10 CFR Part 37 requirements. The 10 CFR Part 37 Physical Protection Program description is provided in Appendix 13EE.

acknowledgement by the SNM qualified licensee that its TSP includes in-transit physical protection from the reactor licensee's site to the receiver's facility.

13DD.3.2 Reactor licensee procedures shall provide guidance regarding advance notification to the receiver of the new fuel shipment, confirmation the receiver is ready to accept shipment, performance of container integrity checks, and placement of tamper-safing devices prior to the commencement of planned shipment in accordance with 10 CFR 73.67(g)(1).

13DD.3.3 When the reactor licensee receives SNM from a shipper, procedures shall include inspections for the container integrity and tamper-safing devices and notifications to the shipper as required by 10 CFR 73.67(g)(2).

13DD.4 **Documentation**

The records created as a result of this plan activity shall be retained in accordance with reactor licensee records administration and applicable requirements of 10 CFR 73.67(g). Records that would be created and retained under this plan, in the event of new fuel return shipments, include:

- Written agreements between the reactor licensee and the shipper/receiver for in-transit physical protection of the new fuel shipment,
- Documentation of advance notifications and receipt,
- Documentation of container integrity and tamper-safing device checks, and
- Copies of superseded response procedure materials.

13DD.5 **References**

13DD.5.1 10 CFR 73.67 – Licensee fixed site and in-transit requirements for the physical protection of special nuclear material of moderate and low strategic significance

13DD.5.2 NRC Regulatory Issue Summary (RIS) 2005-22 Requirements for the Transportation of Special Nuclear Material of Moderate and Low Strategic Significance: 10 CFR Part 73 vs. Regulatory Guide 5.59 (1983)

Insert 4



Insert 4:

Appendix 13EE 10 CFR Part 37 Physical Protection Program Description

13EE.1 Scope

On March 19, 2013, NRC issued 10 CFR Part 37 for the security requirements for the use and transport of category 1 and category 2 quantities of radioactive material. Category 1 and category 2 quantities are listed in Table 1 of Appendix A to 10 CFR Part 37. Nuclear power plants are required to be in full compliance with this rule by March 19, 2014.

The following statements apply to 10 CFR Part 37:

- Generally, category 1 and category 2 quantities of radioactive material, including radioactive waste (radwaste), located inside the defined Protected Area (PA) of a nuclear power plant are normally protected per a 10 CFR Part 73 security plan. The existing physical security measures required by 10 CFR Part 73 for the PA provide protection equivalent to or greater than Part 37 requirements. Any use of 10 CFR Part 73 to satisfy the requirements of 10 CFR Part 37 should be thoroughly documented in the 10 CFR Part 73 security plan to include protection of greater than or equal to a category 2 quantity of radioactive material or a separate 10 CFR Part 37 security plan.
- All category 1 and category 2 quantities of radioactive material and radwaste located outside the defined PA of a nuclear power plant, but within the Owner Controlled Area (OCA) may or may not be protected under a 10 CFR Part 73 required security plan. Site specific evaluation of the 10 CFR Part 37 requirements and the security provided in this area as defined within the 10 CFR Part 73 security plan will need to be completed. Either a modified 10 CFR Part 73 security plan or a 10 CFR Part 37 security plan will be required to document the protection within this area.
- All radioactive material or radwaste shall be assessed for applicability to 10 CFR Part 37 (discrete sources and aggregated material with total activity that equals or exceeds a category 2 quantity) if stored outside the defined PA (i.e., OCA).
- A licensee transferring a category 1 or category 2 quantity of radioactive material to an NRC-licensed facility or an Agreement State shall meet the requirements of 10 CFR Part 37, Subpart D, "Physical Protection In Transit." The license verification provisions of 10 CFR 37.71 (a through d) shall be used instead of those listed in 10 CFR 30.41(d).
- 10 CFR Part 37 does not apply to spent (used) fuel.

Note: Irradiated reactor fuel 100 grams or less in transit shall follow the physical requirements for category 1 quantities of radioactive material in Subpart D of 10 CFR Part 37, as required by 10 CFR 73.35.

This program description establishes guidelines concerning the protection from theft or diversion of category 1 and category 2 quantities of radioactive material at the DTE Electric Company (DTE) Fermi 3 Nuclear Power Plant. Category 1 and category 2 quantities of radioactive

material stored inside the PA are covered by requirements delineated in the Fermi Physical Security Plan (PSP) per 10 CFR Part 73.

In addition to the information provided in this program description, the following Fermi 3 licensing basis documents provide the regulatory basis that describes how the applicable requirements of 10 CFR Part 37 will be met:

- Information related to the organizational structure of the applicant, including those responsible for 10 CFR Part 37 physical protection of category 1 or category 2 quantities of radioactive material from theft or diversion, is provided in FSAR Section 13.1.
- Information related to training of personnel, including those responsible for 10 CFR Part 37 physical protection of category 1 or category 2 quantities of radioactive material, is provided in FSAR Section 13.2.
- Information related to implementation of this 10 CFR Part 37 Physical Protection Program is provided in FSAR Table 13.4-201.
- Information related to plant procedures, including those used for the physical protection of 10 CFR Part 37 quantities of radioactive material, is provided in FSAR Section 13.5.
- Information related to the establishment of a 10 CFR Part 37 physical protection program is provided in FSAR Section 13.6.

13EE.2 Definitions

In this program description, the following definitions shall apply:

- 13EE.2.1 Aggregated quantity:** accessible by the breach of a single physical barrier that would allow access to radioactive material in any form, including any devices that contain the radioactive material, when the total activity equals or exceeds a category 2 quantity of radioactive material.
- 13EE.2.2 Category 1 quantity of radioactive material:** quantity of radioactive material meeting or exceeding the category 1 threshold in Table 1 of Appendix A to 10 CFR Part 37.
- 13EE.2.3 Category 2 quantity of radioactive material:** quantity of radioactive material meeting or exceeding the category 2 threshold, but less than the category 1 threshold, in Table 1 of Appendix A to 10 CFR Part 37.
- 13EE.2.4 Owner Controlled Area:** the area for which the reactor licensee or licensee applicant owns and is responsible for, including the Protected Area.
- 13EE.2.5 Physical Protection:** measures taken to protect radioactive material against theft or diversion.

13EE.2.6 **Protected Area:** the area within the Owner Controlled Area encompassed by physical barriers and to which access is controlled subject to 10 CFR Part 73 requirements.

13EE.2.7 **10 CFR Part 37 Physical Protection Program:** the programmatic controls implemented to protect category 1 and category 2 quantities of radioactive material from theft or diversion.

13EE.3 **Organizational Requirements**

13EE.3.1 **Delegation of Responsibilities and Authority**

Functional and organizational relationships are set forth in writing in organizational directives, instructions, procedures, manuals, and other documents. Documentation includes position qualification requirements and definitions of authority, responsibilities, and duties. Specific assignments of responsibilities are prescribed for all facets of the 10 CFR Part 37 Program physical protection functions in accordance with sections 13EE.3.1.1 through 13EE.3.1.5.

Titles assigned to the positions are intended to be descriptive only. Organizations, specific titles, and related functions may vary. Positions may be filled by personnel in existing plant organizations, or may be created as necessary.

13EE.3.1.1 **Site Executive**

The site executive has the responsibility for overall physical protection of category 1 and category 2 quantities of radioactive material from theft or diversion as required by 10 CFR Part 37 at the plant site.

13EE.3.1.2 **Plant Manager**

The plant manager has overall responsibility for implementation of the 10 CFR 37 Physical Protection Program.

13EE.3.1.3 **Access Authorization**

The security organization will provide support for ensuring that personnel with access to category 1 or category 2 quantities of radioactive material have undergone the required screening and background checks necessary to meet 10 CFR Part 37 requirements.

13EE.3.1.4 **Radiation Protection**

The radiation protection organization supports the implementation of the 10 CFR Part 37 Physical Protection Program by developing requirements for category 1 or category 2 quantities of radioactive material 1) during storage and aggregation, 2) during use, and 3) for receipt and shipment. The radiation protection organization provides oversight controls for vendors or contractors conducting activities involving 10 CFR Part 37 category 1 or category 2 quantities of radioactive material used during the construction and operation phases.

13EE.3.1.5 Security

The security organization will provide physical protection support as required, for 10 CFR Part 37 category 1 or category 2 quantities of radioactive material during storage, use and transit, as applicable, to meet 10 CFR Part 37 requirements. The security organization responsibilities include alarm response, event reporting, and local law enforcement agency notification, as required.

13EE.4 Programmatic Controls

13EE.4.1 Procedures

Written procedures are prepared and maintained covering the physical protection from theft or diversion of category 1 or category 2 quantities of radioactive material as required in 10 CFR Part 37. These procedures shall address, as a minimum, the following topics:

- Identification and documentation of the location of all radioactive material and radwaste with a potential for the total activity to be equal to or greater than category 2 threshold limits.
- Determination of items or materials that could constitute aggregated material.
- Calculation of the total activity of category 1 or category 2 radioactive materials using NRC-approved methodologies.
- Access authorization requirements for personnel having access to category 1 or category 2 quantities of radioactive material.
- Training requirements for personnel implementing 10 CFR Part 37 physical protection program, including radiation protection, access authorization and security procedures.
- Oversight controls for vendors/contractors conducting activities involving category 1 or category 2 quantities of radioactive material.
- Physical protection requirements for the storage, use, receipt or transit of category 1 or category 2 quantities of radioactive material, as applicable, to meet 10 CFR Part 37 requirements.

13EE.4.2 Configuration Control

Provisions are made for written approval of revisions to the contents of the 10 CFR Part 37 Physical Protection Program procedures by the appropriate plant personnel, such as the plant manager.

13EE.4.3 Corrective Action Program

Discrepancies or program deficiencies are documented, investigated, reported, and resolved using the plant corrective action program.

13EE.4.4 Records and Reports

Records regarding category 1 and category 2 quantities of radioactive materials are created, protected, and retained as required in 10 CFR Part 37. Reporting of events will be performed in accordance with 10 CFR Part 37 requirements.

13EE.4.5 System Review and Assessment

Reviews of the 10 CFR Part 37 Physical Protection Program are conducted periodically (at least annually). The results of the reviews are documented and reported in accordance with the Fermi 3 Quality Assurance Program.

Fermi 3 COLA

Part 10 (License Conditions and ITAAC) Markup

3.5 Operational Program Implementation

The provisions of the regulations address implementation milestones for some operational programs. The NRC will use license conditions to ensure implementation for those operational programs whose implementation is not addressed in the regulations. FSAR Table 13.4-201 identifies several programs required by regulations that must be implemented by a milestone to be identified in a license condition:

The licensee shall implement the programs or portions of the programs identified below on or before the associated milestones identified below.

3.5.1 18 months prior to Fuel Load

The licensee shall implement the operational program identified below at least 18 months prior to scheduled date of initial fuel load.

- Reactor Operator Training Program

3.5.2 Receipt of Materials

The licensee shall implement the operational program identified below prior to initial receipt of byproduct, source, or special nuclear materials onsite (excluding Exempt Quantities as described in 10 CFR 30.18).

- Radiation Protection Program (for elements necessary to support receipt of byproduct, source, or special nuclear materials onsite)

- 10 CFR Part 37 Physical Protection Program
(prior to possession of aggregated category 1 or
category 2 quantities of radioactive material)

3.5.3 Fuel Receipt

The licensee shall implement each operational program identified below prior to initial receipt of fuel onsite.

- Fire Protection Program (for elements necessary to support receipt and storage of fuel onsite)
- Radiation Protection Program (for elements necessary to support receipt and storage of fuel onsite)

3.5.4 60 days prior to Preoperational Testing

The licensee shall implement the operational program identified below 60 days prior to the scheduled date of the first preoperational test.

- Initial Test Program – Preoperational Test Program