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NRC-21-0003

10 CFR 26.205(d)

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

Fermi 2 Power Plant
NRC Docket No. 50-341
NRC License No. NPF-43

Subject: Fermi 2 Work Hour Limits Exemption Request due to COVID-19 – Supplement

- References:
1. NRC Letter from H. Nieh to NEI, “U.S. Nuclear Regulatory Commission Planned Actions Related to the Requirements for Work Hour Controls During the Coronavirus Disease 2019 Public Health Emergency,” March 28, 2020 (ML20087P237).
 2. NRC Letter from J. Lubinski and H. Nieh to NEI, “U.S. Nuclear Regulatory Commission Updated Planned Actions Related to Certain Requirements for Operating and Decommissioning Reactor Licensees During the Coronavirus Disease 2019 Public Health Emergency,” dated November 10, 2020 (ML20261H515)
 3. DTE Electric Letter to NRC, “Fermi 2 Work Hour Limits Exemption Request Due to COVID-19,” NRC-20-0070, dated November 10, 2020 (ML20315A373)
 4. NRC Letter to DTE Electric, “Fermi-2 – Exemption from Select Requirements Of 10 CFR PART 26 (EPID L-2020-LLE-0187 [COVID-19]),” dated November 18, 2020 (ML20317A272)

As a result of the Coronavirus Disease 2019 (COVID-19) public health emergency (PHE), DTE Electric Company (DTE) requested NRC approval for Fermi Unit 2 (Fermi 2) to proactively enter into the alternative work hour controls in Reference 3. The request was approved by the NRC in Reference 4. By implementing the alternative work hour controls, DTE is proactively taking steps to maintain staffing levels in a manner that supports worker and neighboring community safety to limit the spread of the COVID-19 virus. The actions support Fermi 2 efforts to maintain Center for Disease Control and Prevention (CDC) recommendations related to social

distancing, worker screening, and limiting close-proximity work. Particularly, given the COVID-19 challenge in the immediate community of Fermi 2 and the DTE corporate COVID-19 strategy, Fermi 2 is leveraging the alternative work hour controls to facilitate further worker and community protection as the reactor is operated safely and efficiently.

As of the date of this letter, the PHE has not ended and recent trends indicate the PHE is unlikely to end prior to the end of the initial (i.e., current) exemption period. For example, the number of new daily COVID-19 cases in Michigan has remained high since the beginning of the initial exemption period on 11/19/2020. These levels of new daily COVID-19 cases in Michigan, although showing signs of having plateaued, remain approximately five times the average levels of the July through early October period. The number of new daily COVID-19 cases in Monroe County, where Fermi 2 is located, has followed a similar trend. Fermi 2 overall continues to see a high number of new COVID-19 cases and individuals quarantined concurrent with the sustained high numbers seen at the county and state levels. For the covered groups specified in 10 CFR 26.4(a), the sustained elevated levels of COVID-19 cases could impact the station's ability to meet the work hour controls of 10 CFR 26.205(d) and to ensure adequate personnel are available to complete necessary operations, tests, inspections, and maintenance in a manner that supports nuclear safety and security.

This request is for an extension to the exemption period approved in Reference 4 until March 18, 2021. The extended exemption period of alternative work hour controls is needed in order for Fermi 2 to continue to effectively support efforts to maintain CDC recommendations related to social distancing, worker screening, and limiting of close-proximity work in addition to sequestration. The sequestration efforts involve isolation of critical workers prior to scheduled work periods. Per Reference 4, the initial exemption allowing 60 days of alternative control requested in Reference 3 will expire after January 17, 2021. A 60-day extension of the alternative work hour controls will facilitate worker and community protection as Fermi 2 continues to operate safely and efficiently.

As the US Departments of Homeland Security and Energy have stated in their guidance, the electric grid and nuclear plant operation make up the nation's critical infrastructure similar to the medical, food, communications, and other critical industries. Fermi 2 operation must be conducted such that the plant is available when needed.

In accordance with References 1 and 2, the following information is provided in the table on the next page:

- Positions (as described in § 26.4(a)(1) – (5)) for which either current work-hour controls will be maintained, or for which alternative controls will be required to maintain staffing.
- The date and time for which alternative controls (if necessary) will be implemented for the listed positions.

10 CFR	Positions	Compliance	Begin Implementation
26.4(a)(1)	Operators	Will use site-specific alternative controls as defined in References 1 and 2	Will continue implementation of the alternative approach upon NRC approval (as warranted by COVID-19 conditions)
26.4(a)(2)	Health Physics		
	Chemistry		
26.4(a)(3)	Fire Brigade		
26.4(a)(4)	Maintenance		
26.4(a)(5)	Security		

Upon NRC approval, Fermi 2 will continue to implement the alternative controls described below and discussed in References 1 and 2 for the management of fatigue during the period of the exemption. These controls ensure that covered workers are subjected to the following minimum controls:

- (1) not more than 16 work-hours in any 24-hour period and not more than 86 work-hours in any 7-day period, excluding shift turnover;
- (2) a minimum 10-hour break is provided between successive work periods;
- (3) 12-hour shifts are limited to not more than 14 consecutive days;
- (4) a minimum of 6 days off are provided in any 30-day period;
- (5) the calculation of work hours and days off includes all work hours and days off during the applicable calculation periods, including those work hours and days off preceding initiation of the exemption period; and
- (6) requirements are established for behavioral observation and self-declaration during the period of the exemption

As described above, the requirements of 10 CFR 26.33, “Behavioral observation”; 10 CFR 26.209, “Self-declarations”; and 26.211, “Fatigue assessments” remain in effect during the period of this exemption. These requirements provide reasonable assurance that should personnel become impaired due to fatigue, requirements and processes are in place to identify the impairment through observation by plant staff or by worker self-declaration, and to assess and address instances of impairment through fatigue assessments.

Fermi 2 site-specific COVID-19 PHE fatigue-management controls are consistent with the constraints outlined in References 1 and 2. During the initial 60-day Work Hour Exemption (effective from November 19, 2020, through January 17, 2021 per Reference 4), fatigue has been assessed by the Fermi 2 fatigue management controls, behavioral observation requirements, and self-declaration allowances currently delineated within the Fermi 2 work hour control program and procedures (MGA10 and MGA16). Fermi 2 will continue to follow these fatigue assessment requirements through the requested extended exemption period (from January 18, 2021, through March 18, 2021).

The information in the following table describes how cumulative fatigue has been managed for the various positions included in the initial alternative work hour controls exemption period approved in Reference 4 and how it will be managed during the extended exemption period.

10 CFR	Positions	Additional Information
26.4(a)(1)	Operators	<p>During the initial exemption period, 92 workers were considered to meet this category. The average hours worked per week was 40.</p> <p>Individuals in this category have typically worked 12-hour shifts (mainly either 0645 – 1845 or 1845 – 0645) with up to 1 hour of additional time for thorough turnover for the following 2-week rotating schedules:</p> <ol style="list-style-type: none"> 1. One week of Monday – Tuesday on, Wednesday – Friday off, Saturday – Sunday on (2 days on, 3 days off, 2 days on) <u>AND</u> 2. One week of Monday – Wednesday on, Thursday – Sunday off (3 days on, 4 days off) <p><u>OR</u></p> <ol style="list-style-type: none"> 1. One week of Monday – Tuesday off, Wednesday – Friday on, Saturday – Sunday off (2 days off, 3 days on, 2 days off) <u>AND</u> 2. One week of Monday – Wednesday off, Thursday – Sunday on (3 days off, 4 days on) <p>Sequestered individuals normally work 10-hour shifts (0700 – 1700) for two weeks of Monday – Friday on, Saturday – Sunday off (5 days on, 2 days off).</p> <p>These typical schedules are planned to continue in the requested extension period.</p> <p>As of December 30, 2020, the alternative controls have been used at least once for 14 individuals throughout the period due to COVID-19 issues. All of these 14 individuals have had at least 2 consecutive days off within the 2 weeks prior to December 30, 2020.</p>
26.4(a)(2)	Health Physics	<p>During the initial exemption period, 20 workers were considered to meet this category. The average hours worked per week was 29.3.</p> <p>Individuals in this category have typically worked the following schedules with up to 1 hour of additional time for thorough turnover:</p> <ul style="list-style-type: none"> • Fixed, 8-hour shifts (0730 – 1530) of Monday – Friday on, Saturday – Sunday off (5 days on, 2 days off)

10 CFR	Positions	Additional Information
		<ul style="list-style-type: none"> • Rotating, 12-hour shifts (0700 – 1900 or 1900 – 0700) of varying days for: <ol style="list-style-type: none"> 1. One week of 4 days on and 3 days off 2. One week of 3 days on and 4 days off • Sequestered individuals did not work while on sequester but remained available for call in. <p>These typical schedules are planned to continue in the requested extension period.</p> <p>As of December 30, 2020, the alternative controls have not yet been used for any individuals in this category throughout the initial period.</p>
	Chemistry	<p>During the initial exemption period, 8 workers were considered to meet this category. The average hours worked per week was 40.</p> <p>Individuals in this category have typically worked the following 5-week rotating schedule with up to 1 hour of additional time for thorough turnover:</p> <ol style="list-style-type: none"> 1. One week of 12-hour shifts (0700 – 1900), Monday – Thursday on, Friday – Sunday off (4 days on, 3 days off) 2. One week of 12-hour shifts (1900 – 0700), Monday – Wednesday on, Thursday – Sunday off (3 days on, 4 days off) 3. One week of 12-hour shifts (1900 – 0700), Thursday – Sunday on, Monday – Wednesday off (4 days on, 3 days off) 4. One week of 12-hour shifts (0700 – 1900), Friday – Sunday on, Monday – Thursday off (3 days on, 4 days off) 5. One week of 10-hour shifts (0700 – 1700), Tuesday – Friday on, Saturday – Monday off (4 days on, 3 days off) <p>Sequestered individuals did not work while on sequester but remained available for call in.</p> <p>These typical schedules are planned to continue in the requested extension period.</p> <p>As of December 30, 2020, the alternative controls have not yet been used for any individuals in this category throughout the initial period.</p>

10 CFR	Positions	Additional Information
26.4(a)(3)	Fire Brigade	Operations personnel fulfill Fire Brigade positions. Therefore, fire brigade personnel are subsumed into Operators category.
26.4(a)(4)	Maintenance	<p>Personnel defined by the Maintenance category cover a broad spectrum of specialized work positions such as mechanics, electricians, Instrument & Controls (I&C) technicians, local leakage rate testers (LLRT), and their supervision.</p> <p><u>DTE Mechanical, Electrical, and I&C Personnel</u> During the initial exemption period, there were 143 DTE mechanical, electrical, and I&C personnel that were considered to meet this category. The average hours worked per week was 30.3.</p> <p>Individuals in this group have typically worked 8 or 10-hour shifts (either 0730 – 1530 days, 0800 – 1600 days, 1530 – 2330 afternoons, 1600 – 2359 afternoons, 2330 – 0730 nights, or 2200 – 0800 nights) with up to 1 hour of additional time for thorough turnover for one of the following fixed schedules:</p> <ol style="list-style-type: none"> 1. One week of days for Monday – Friday on, Saturday – Sunday off (5 days on, 2 days off) 2. One week of afternoons for Monday – Friday on, Saturday – Sunday off (5 days on, 2 days off) 3. One week of nights for Monday – Friday on, Saturday – Sunday off (5 days on, 2 days off) 4. One week of nights for Monday – Thursday on, Friday – Sunday off (4 days on, 3 days off) <p>Workers in this group also fill RERP positions on a rotation once per week for a 12-hour shift. A Safety System Outage would also require a 12-hour shift. Sequestered Maintenance personnel do not typically work during sequestration.</p> <p>These typical schedules for this group are planned to continue in the requested extension period.</p> <p>As of December 30, 2020, the alternative controls have not yet been used for any individuals in this group throughout the initial period.</p> <p><u>Supplemental Projects Personnel</u> During the initial exemption period, there were 6 supplemental personnel in the Projects group that were considered to meet this category. The average hours worked per week was 40.</p>

10 CFR	Positions	Additional Information
		<p>Individuals in this group typically worked 10-hour shifts (0700 – 1700) Monday – Thursday on, Friday – Sunday off (4 days on, 3 days off).</p> <p>The typical schedule for this group is not planned to continue in the requested extension period since these workers are no longer performing work for Fermi 2. However, if individuals are returned to work in this group for performing Maintenance functions under this category, they are currently planned to work the same typical schedule.</p> <p>As of December 30, 2020, the alternative controls have not yet been used for any individuals in this group throughout the initial period.</p> <p><u>DTE LLRT Personnel</u> During the initial exemption period, there were 4 DTE LLRT personnel that were considered to meet this category. The average hours worked per week was 42.50.</p> <p>Individuals in this group have typically worked one of the following fixed schedules:</p> <ul style="list-style-type: none"> • 8.5-hour shifts (0800 – 1630) of Monday – Friday on, Saturday – Sunday off (5 days on, 2 days off) • 10.0-hour shifts (0630 – 1630) of Monday – Thursday on, Friday – Sunday off (4 days on, 3 days off) <p>The typical schedules for this group are planned to continue in the requested extension period.</p> <p>As of December 30, 2020, the alternative controls have not yet been used for any individuals in this group throughout the initial period.</p>

10 CFR	Positions	Additional Information
26.4(a)(5)	Security	<p>During the initial exemption period, 141 workers were considered to meet this category. The average hours worked per week was 38.4.</p> <p>Individuals in this category have typically worked 12-hour shifts (either 0600 – 1800 or 1800 – 0600) with up to 1 hour of additional time for thorough turnover for the following 5-week rotating schedules:</p> <ol style="list-style-type: none"> 1. One week of Monday – Wednesday on, Thursday – Sunday off (3 days on, 4 days off) 2. One week of Monday – Wednesday off, Thursday – Sunday on (3 days off, 4 days on) 3. One week of Monday – Thursday off, Friday – Sunday on (4 days off, 3 days on) 4. Either: <ol style="list-style-type: none"> a. One week of Tuesday, Wednesday, Friday, Saturday on; Monday, Thursday, Sunday off (4 days on, 3 days off) b. One week of Tuesday, Wednesday, Friday, Saturday off; Monday, Thursday, Sunday on (3 days on, 4 days off) 5. One week of Monday – Thursday on, Friday – Sunday off (4 days on, 3 days off) <p>These typical schedules are planned to continue in the requested extension period.</p> <p>As of December 30, 2020, the alternative controls have been used at least once for 42 individuals throughout the period due to COVID-19 issues. All of these 42 individuals have had at least 2 consecutive days off within the 2 weeks prior to December 30, 2020.</p>

As described in the above table, all personnel have either followed typical online schedules or the alternative controls with at least 2 consecutive days off within the prior 2 weeks as of December 30, 2020. Fermi 2 will also perform a cumulative fatigue awareness stand down prior to entering the extended exemption period associated with this request. In addition, fatigue awareness will be included in safety and human performance messages. These measures and conditions prevent cumulative fatigue to ensure that the ability of individuals to safely and competently perform their duties is not compromised.

Immediately preceding the initial exemption period, no personnel specified in 10 CFR 26.4(a) were controlled in accordance with neither 10 CFR 26.205(d)(3) nor (d)(7).

There have been no self-declarations and no behavioral observations of fatigue or impaired alertness thus far during the initial exemption period.

Fermi 2 is currently in Mode 1 and anticipated to remain in Mode 1 for the entirety of the requested extended exemption period.

The above information provides a technical basis for reasonable assurance that cumulative fatigue during the subsequent (extended) exemption period will not compromise plant safety or security due to impaired worker fitness for duty. Upon NRC approval, Fermi 2 will continue to implement the alternative controls described in References 1 and 2 for the management of fatigue until March 18, 2021. The extension beyond the initial period of 60 days will allow Fermi 2 to continue with maintaining staffing levels by sequestering of plant personnel to ensure a healthy work environment. Note that Fermi 2 only plans to continue to implement the alternative controls during the extended exemption period when warranted by the COVID-19 conditions (i.e., normal work hour controls would be restored prior to March 18, 2021 if conditions allow).

DTE requests approval of this request by no later than January 17, 2021.

No new commitments are being made in this submittal.

Should you have any questions or require additional information, please contact Ms. Margaret Offerle, Manager – Nuclear Licensing, at (734) 586-5076.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Dietrich', written in a cursive style.

Peter Dietrich
Senior Vice President and Chief Nuclear Officer

cc: NRC Project Manager
NRC Resident Office
NRC Region III Branch Chief Division of Reactor Projects Branch 4
Regional Administrator, Region III