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L-09-269

10 CFR 26

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

SUBJECT:

Beaver Valley Power Station, Unit Nos. 1 and 2
Docket No. 50-334, License No. DPR-66
Docket No. 50-412, License No. NPF-73

Davis-Besse Nuclear Power Station
Docket No. 50-346, License No. NPF-3

Perry Nuclear Power Plant
Docket No. 50-440, License No. NPF-58
Request for Exemption from Portions of 10 CFR 26, "Fitness For Duty Programs"

In accordance with the provisions of 10 CFR 26.9, "Specific exemptions," the FirstEnergy Nuclear Operating Company (FENOC) is requesting an exemption from portions of 10 CFR 26, "Fitness For Duty Programs." Specifically, FENOC is requesting an exemption from the portions of 10 CFR 26.5, "Definitions," that define the applicable shift schedules by changing the breakpoint between an 8-hour shift and a 10-hour shift by a half hour, from 9 hours to 9.5 hours. The enclosure contains the details of the exemption request. The attachment contains an environmental assessment associated with the request.

FENOC requests approval of this exemption request by March 1, 2010, and that the requested exemption be effective within 30 days of approval. This will allow the change to be implemented with the first shift cycle that begins in the second quarter of 2010.

There are no regulatory commitments contained in this submittal. If there are any questions or if additional information is required, please contact Mr. Gregory H. Halnon, Director – Regulatory Affairs at 330-384-5534.

Sincerely,



Joseph J. Hagan

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NRR

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Davis-Besse Nuclear Power Station
Perry Nuclear Power Plant
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Enclosure
Request for Exemption from Fitness for Duty Requirements

Attachment
Environmental Assessment

cc: NRC Region I Administrator
NRC Region III Administrator
NRC Resident Inspector (Beaver Valley)
NRC Resident Inspector (Davis-Besse)
NRC Resident Inspector (Perry)
NRR Project Manager (Beaver Valley)
NRR Project Manager (Davis-Besse)
NRR Project Manager (Perry)
Director BRP/DEP
Site BRP/DEP Representative
Executive Director, Ohio Emergency
Management Agency, State of Ohio (NRC Liaison)
Utility Radiological Safety Board

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Subject: Request for exemption from the portions of 10 CFR 26.5, "Definitions," that define the eight (8)-hour shift schedule and the ten (10)-hour shift schedule.

Introduction

In accordance with the provisions of 10 CFR 26.9, "Specific Exemptions," the FirstEnergy Nuclear Operating Company (FENOC) is requesting an exemption from portions of 10 CFR 26, "Fitness For Duty Programs." Specifically, the exemption is from the portions of 10 CFR 26.5, "Definitions," that define the eight (8)-hour shift schedule and the ten (10)-hour shift schedule by changing the breakpoint between an 8-hour shift and a 10-hour shift by a half hour, from 9 hours to 9.5 hours.

FENOC requests the following definitions be applied:

Eight (8)-hour shift schedule means a schedule that averages not more than 9.5 hours per work day over the entire shift cycle.

Ten (10)-hour shift schedule means a schedule that averages more than 9.5 hours, but not more than 11 hours, per work day over the entire shift cycle.

Basis for Request

The exemption request provides for the rational application of the fatigue rule work hour restrictions contained in 10 CFR 26 for normal, five day a week, eight hour a day workers. In most cases, the workers are provided with an unpaid 30 minute meal period, which by rule, 10 CFR 26.205(b), must be counted as hours worked. This provides for a minimum typical work day of 8.5 hours, without any overtime.

Additionally, many workers, in order to provide for closing out the day's work per procedures and industry standards, stay another period of time to brief their management, close out paperwork, perform administrative duties, and prepare for the next work day. Since, by the definition in 10 CFR 26.205(b)(1), this time cannot be counted as turnover; the time spent preparing for safe and efficient work for the next day is required to be counted as work hours. The complexity of the fatigue rule can also add upwards of 30 minutes per day of supervisor time due to schedule perturbations caused by vacation requests, sick employees, time off requests, and other scheduling issues. The current definition of an 8-hour shift schedule essentially eliminates it as a work option since if these tasks, plus any overtime required to address plant issues, average over 30 minutes per day, the individual then becomes a 10-hour shift schedule employee. Since a 10-hour shift schedule employee is entitled to two days off per week, the employee is not available to work on Saturday or Sunday without impacting the minimum day off (MDO) requirements specified in 10 CFR 26.205(d)(3).

Eight hour shift workers are accustomed to working these additional hours. Note that an average work day of 9.5 hours provides for a break period of 14.5 hours which is

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ample time for restorative sleep (7 – 8 hours), for commuting and meeting personal needs [estimated at 3 hours per day by the Nuclear Regulatory Commission (NRC)], and for meeting social and domestic commitments (3.5 – 4.5 hours remaining).

An 8-hour shift schedule employee typically works Monday through Friday with the weekend off. However, in order to maintain average hours worked less than nine, per the existing definition, scheduling the employee to work Sunday for 30 minutes would allow compliance with the rule by lowering the average hours worked per day. For example, if an employee worked an 8 hour day, plus a half hour for lunch, plus one hour for administrative duties each day Monday through Friday, the employee would be a 10-hour shift schedule employee (a total of 47.5 hours divided by 5 days equals an average of 9.5 hours per day). As such, the employee is required to two days off per week. However, if the employee was required to perform a task from home on Sunday, such as participating on a 30-minute plant status phone call, the employee would revert back to an 8-hour shift schedule employee (a total of 48 hours divided by 6 days equals an average of 8 hours per day). As an 8-hour shift schedule employee, the employee is required to have one day off per week, making him eligible to work Saturday or Sunday if plant conditions warrant.

Under normal circumstances, it is clear that providing an uninterrupted weekend is safer and more beneficial to the workers from a fatigue perspective. However, the overly restrictive definition of an 8-hour shift schedule precludes the site's ability to provide an uninterrupted weekend and maintain the flexibility to call employees into work on their scheduled day off.

Expanding the definition of the 8-hour shift schedule is consistent with the NRC's rejection of the industry's proposal for periodic overtime in Regulatory Guide 5.73, "Fatigue Management for Nuclear Power Plant Personnel." The NRC staff opined that there was ample flexibility in the rule to work some overtime without adversely affecting the shift cycle, hence there was no need for a section in Nuclear Energy Institute 06-11, "Managing Personnel Fatigue at Nuclear Power Reactor Sites," that discusses periodic overtime. In order for this flexibility to exist, the expansion of the definition for an 8-hour shift schedule is essential. Otherwise, an 8-hour shift schedule employee is limited to less than an average of 2.5 hours of overtime per week, which is a practical concern identified by FENOC that does not provide adequate flexibility. The NRC acknowledged the need to address valid practical concerns in the Federal Register issuing the Fitness for Duty Rule (Vol. 73, No. 62, Monday, March 31, 2008, page 17131).

In originally developing its Policy on Worker Fatigue, the NRC had planned a 12-hour maximum limit, but revised it to 16 hours in response to practical concerns raised by the industry that the 12-hour limit required personnel who worked 8-hour shifts to split shifts when they work overtime. Those practical concerns remain valid, and the final rule retains a 16-hour limit.

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This exemption request is consistent with the NRC's consideration that "the minimum day off requirements would, in effect, limit each individual's average number of work hours and the average number of consecutive work shifts between days off, thereby reducing the potential for cumulative fatigue." Revising the definition of an 8-hour shift schedule as requested would increase the opportunity to have an additional day off, which is a goal of this rule, as stated in the Federal Register issuing the Fitness for Duty Rule (Vol. 73, No. 62, Monday, March 31, 2008, page 17135), "the minimum day off requirement is essential for limiting cumulative fatigue and augments other important elements of licensees' fatigue management programs."

The Federal Register issuing the Fitness for Duty Rule (Vol. 73, No. 62, Monday, March 31, 2008, page 17135) also states that the MDO requirements are intended to result in maximum average work weeks in the range of 48 – 54 hours. An 8-hour shift schedule employee working Monday to Friday is limited to working an average of 42.5 hours per week, assuming a 30 minute lunch break. The proposed exemption request would result in an average workweek of 45 hours, assuming a 30 minute lunch break, which is below the lower portion of the NRC's intended goal and is in keeping with the shift scheduling guidelines of EPRI NP-6748, "Control Room Operator Alertness and Performance in Nuclear Power Plants," and NUREG/CR-4248, "Recommendations for NRC Policy on Shift Scheduling and Overtime at Nuclear Power Plants." The range of 48 – 54 hours per week for an 8-hour shift schedule employee assumes the employee is working six days a week. FENOC's goal in requesting this exemption is for 8-hour shift employees to be able to typically work a five-day week, thus improving the employee's quality of life and reducing the potential for cumulative fatigue.

In accordance with 10 CFR 26.9, "Specific Exemptions," the NRC may grant exemptions from the regulations in this part that are determined to be authorized by law and do not endanger life or property or the common defense and security, and are otherwise in the public interest. This exemption request meets these requirements.

As demonstrated above, this exemption request is consistent with the intent of the fatigue rule. As such, it is within the authority of the NRC to grant this request as the new definitions for 8-hour shift schedule and 10-hour shift schedule do not endanger life or property or the common defense and security. The added flexibility will enhance the quality of life for the affected employees. There is no negative impact to the public interest as a result of this exemption request while the benefit to the affected employees will result in a positive impact to the public interest.

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Environmental Assessment
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The FirstEnergy Nuclear Operating Company (FENOC) is requesting an exemption from portions of 10 CFR 26, "Fitness For Duty Programs." This attachment contains an Environmental Assessment for the proposed exemption.

1. Describe any changes to the types, characteristics, or quantities of non-radiological effluents discharged to the environment as a result of the proposed exemption.

There are no expected changes in the types, characteristics, or quantities of non-radiological effluents discharged to the environment as a result of the proposed exemption. The proposed exemption is administrative in nature and is limited to changing the definitions for 8-hour shift schedules and 10-hour shift schedules. This does not result in any changes to the design basis requirements for the structures, systems, and components (SSCs) at any of the FENOC sites that function to limit the release of non-radiological effluents during and following postulated accidents. The SSCs associated with limiting the release of offsite non-radiological effluents will therefore continue to be able to perform their functions, and, as a result, there is no significant non-radiological effluent impact. There are no materials or chemicals introduced into the plant that could affect the characteristics or types of non-radiological effluents. In addition, the method of operation of non-radiological waste systems will not be affected by the proposed exemption.

2. Describe any changes to liquid radioactive effluents discharged as a result of the proposed implementation.

There are no expected changes to liquid radioactive effluents discharged as a result of the proposed exemption. The proposed exemption is limited to administrative changes to the definitions for 8-hour shift schedules and 10-hour shift schedules and will not result in the production of any different quantity or type of radioactive material in the reactor coolant system. The proposed exemption will not result in changes to the design basis requirements for the SSCs at the FENOC sites that function to limit the release of liquid radiological effluents during and following postulated accidents. The SSCs associated with limiting the release of liquid radiological effluents will therefore continue to be able to perform their functions, and, as a result, there is no significant liquid radiological effluent impact.

3. Describe any changes to gaseous radioactive effluents discharged as a result of the proposed exemption.

There are no expected changes to gaseous radioactive effluents discharged as a result of the proposed exemption. The proposed administrative changes to the definitions for 8-hour shift schedules and 10-hour shift schedules will not result in the production of

any different quantity or type of radioactive material in the reactor coolant system. These changes will not result in changes to the design basis requirements for the SSCs at the FENOC sites that function to limit the release of gaseous radiological effluents during and following postulated accidents. The SSCs associated with limiting the release of gaseous radiological effluents will therefore continue to be able to perform their functions, and, as a result, there is no significant gaseous radiological effluent impact.

4. Describe any change in the type or quantity of solid radioactive waste generated as a result of the proposed exemption.

There are no expected changes to solid radioactive waste generated as a result of the proposed exemption. The proposed administrative changes to the definitions for 8-hour shift schedules and 10-hour shift schedules will not result in the production of any different quantity or type of radioactive material. These changes will not result in changes to the design basis requirements for the SSCs at the FENOC sites that function to limit the release of solid radioactive waste during and following postulated accidents. In addition, radiation surveys will continue to be performed in accordance with plant radiation procedures. The SSCs associated with limiting the release of solid radioactive waste will therefore continue to be able to perform their functions, and, as a result, there is no significant solid radioactive waste impact.

5. What is the expected change in occupational dose as a result of the proposed exemption under normal and design basis accident conditions?

There are no expected changes in occupational dose as a result of the proposed exemption under normal or design basis accident conditions. Control room dose, any other occupational dose, or dose levels to the public will not be affected by this proposed exemption.

6. What is the expected change in the public dose as a result of the proposed change under normal and design basis accident conditions?

Dose to the public will not be affected by the proposed exemption during either normal or design basis accident conditions. As noted in responses to Items 2, 3, and 4 above, there is no basis to contemplate an increased source of liquid, gaseous, or solid radiological effluents, or associated leak rate, which could contribute to increased public exposure during normal operations or design basis accident conditions. The proposed administrative changes to the definitions for 8-hour shift schedules and 10-hour shift schedules do not impact systems used during normal operation nor systems used to detect or mitigate a design basis accident.

7. What is the impact to land disturbance for the proposed changes?

There is no impact to land disturbance as a result of the proposed exemption. The proposed administrative changes to the definitions for 8-hour shift schedules and 10-hour shift schedules will not result in any impact to land in the vicinity of any of the FENOC sites.

Conclusion

There is no significant radiological environmental impact associated with the proposed changes to the definitions for 8-hour shift schedules and 10-hour shift schedules. These proposed changes will not affect any historical sites nor will they affect non-radiological plant effluents.