



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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MURRAY R. EDELMAN

VICE PRESIDENT
NUCLEAR

May 19, 1983

PY-CEI/NRR-0044 L

Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
Question Nos. 260.14 - 260.18
Outstanding Issue No. 23

Dear Mr. Youngblood:

This letter and its attachments are provided in response to Question Nos. 260.14 - 260.18 addressed by the NRC Quality Assurance Staff in your letter dated March 7, 1983. In your letter you requested clarifications and additional information pertaining to Table 3.2-1 in the Perry FSAR.

In April 1983, the NRC staff issued Supplement No. 3 to the Perry Safety Evaluation Report (SER). In Supplement No. 3, the NRC staff added the previously mentioned questions on the Perry FSAR Table 3.2-1, as Outstanding Issue No. 23.

We believe that this letter and its attachments should clarify and provide the pertinent information for the Quality Assurance Staff, to resolve Outstanding Issue No. 23 in the next supplement of the Perry SER.

Very truly yours,

Murray R. Edelman
Vice President
Nuclear Group

MRE:kh

cc: Jay Silberg, Esq.
John Stefano
Max Gildner

B001

Attachments

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PDR ADDCK 05000440
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260.14 The response to the following questions are acceptable. They need to be incorporated into Table 3.2-1 as committed to by CEI in each response.

<u>Response to Question</u>	<u>Table 3.2-1 Location</u>	<u>Item (Comment)</u>
260.10	XXIX.12	Diesel generator jacket water cooling. (Safety Class column is blank per Amendment 8. Needs to show Safety Class 3 per response.)
260.10	XXXIV.15	Spent fuel pool and liner. (Safety Class column is blank per Amendment 8. Needs to show Safety Class 2 per response.)
260.10	XXXIV.17	Foundation for Seismic Category I electrical duct banks and manholes. (Same comment as for XXXIV 15.)
260.11	Note 1	Clarification that valve operators are implicit in the entry for valves. (Note 1 of Table 3.2-1 needs to be revised per the response.
260.12	I.6	Reactor internal structures, other. (The response indicates an acceptable note regarding QA will be added to the table, and this needs to be done. Also, FSAR Amendment 8 changed the seismic category from I to N/A. This change is contrary to Regulatory Guide 1.29 and is unacceptable to the staff.)
260.12	III.6	Pump motors. (The response states: "A note will be added to Table 3.2-1 stating that the pump motors are subject to General Electric's QA Program requirements during design, fabrication and installation. Pump motors will be subject to the pertinent provisions of 10CFR50, Appendix B during the operations phase." We will require that the second sentence be included in the note.)
260.12	XXXII.9	AC control power inverters. (Safety Class column shows NSC per Amendment 8. Needs to show Safety Class 2 per response.)
260.12	XXXII.11	Fire stops. (New note needs to be added per the response and referenced at Item XXXII.11.)

<u>Response to Question</u>	<u>Table 3.2-1 Location</u>	<u>Item (Comment)</u>
260.12	XXXV.1.f	Fire control dampers. (New note needs to be added per the response and referenced at Item XXXV 1.f.)
260.13	XXXVI	Other components (Items need to be returned to Table 3.2-1.)

RESPONSE

260.10	XXIX.12	Diesel generator jacket water cooling: Safety Class 3 will be indicated in Amendment 12 of Table 3.2-1.
260.10	XXXIV.15	Spent fuel pool and liner: Safety Class 2 will be indicated in Amendment 12 of Table 3.2-1.
260.10	XXXIV.17	Foundation for Seismic Category I electrical duct banks and manholes: Safety Class 2 will be indicated in Amendment 12 of Table 3.2-1.
260.11	Note 1	<p>Clarification that valve operators are implicit in the entry for valves: (Additional clarification of our previous response is required to completely address this item.) Specific valves in Perry's design are designated Safety Class 1 solely on their application in maintaining the Reactor Coolant Pressure Boundary. These valves serve no other safety function in Perry's plant design to prevent or mitigate the consequences of an accident. Associated operators with these valves do not affect the Reactor Coolant Pressure Boundary and are therefore classified nonsafety.</p> <p>An additional sentence will be added to the end of Note 1 of Table 3.2-1 (in Amendment 12) stating that all valve operators are implicit in the entry of valves, except in those applications where the valve's sole function is maintaining a Reactor Coolant Pressure Boundary.</p>

<u>Response to Question</u>	<u>Table 3.2-1 Location</u>	<u>Item (Comment)</u>
260.12	I.6	<p>Reactor internal structures, other: A note will be added to Table 3.2-1 (Amendment 12) stating that other reactor internal structures will be subject to the pertinent provision of 10CFR50, Appendix B during the operations phase.</p> <p>The change (in Amendment 8) in the seismic category of reactor vessel internals from I to N/A is considered correct based on GE's design program for the reactor vessel.</p> <p>Other reactor vessel internals referred to in Table 3.2-1 includes:</p> <ol style="list-style-type: none"> (1) Shroud head and steam separators assembly. (2) Dryer assembly. (3) Containers for vessel surveillance samples. (4) Guide rods. <p>The structures described above are classified as "passive" and have no function or contribution to move or cause another component to accomplish a safety function during normal operation, shutdown, or an accident.</p> <p>These assemblies/components are constructed to assure operational integrity only. General Electric's program to verify structural integrity is accomplished via stress analysis and/or periodic inspection as required by codes ASME III and XI during the design and construction phase.</p>
260.12	III.6	<p>Pump motors: (A revised response is required to completely address this item.) Recirculation pump motors are nonsafety class and are therefore not subject to the provisions of 10CFR50, Appendix B during the operations phase.</p>

<u>Response to Question</u>	<u>Table 3.2-1 Location</u>	<u>Item (Comment)</u>
		Recirculation pumps as utilized in the Perry Nuclear Power Plant's design are specified Seismic Category I since they form part of the Reactor Coolant Pressure Boundary. Operation of these pumps is not required to mitigate or prevent the effects of an accident. Associated motors with these pumps are not classified Seismic Category I, however, they have been evaluated for Seismic Category I requirements and will not threaten the pressure boundary function of the pumps or any other safety-related system's functions.
260.12	XXXII.9	AC control power inverters: Table 3.2-1 (in Amendment 12) will be revised to reflect; "AC control power inverters with safety functions as the principal component with a Safety Class 2 designation. Based on this classification, these components are subject to the provisions of 10CFR50, Appendix B during the operations phase."
260.12	XXXII.11	Fire stops: A note will be added to Table 3.2-1 (in Amendment 12) stating that fire stops are subject to the pertinent provisions of 10CFR50, Appendix B as discussed in the Perry Fire Protection Evaluation Report.
260.12	XXXV.1.f	Fire control dampers: A note will be added to Table 3.2-1 (in Amendment 12) stating that fire control dampers are subject to pertinent provisions of 10CFR50, Appendix B as discussed in the Perry Fire Protection Evaluation Report.
260.13	XXXVI	Other components: Item XXXVI will be reinserted into Table 3.2-1 as part of Amendment 12 to the FSAR.

260.15 The response to the following questions need clarification or correction as noted.

<u>Response to Question</u>	<u>Table 3.2-1 Location</u>	<u>Item (Comment)</u>
260.11.c.1	XXI.3	Safety parameter display system - SPDS. (The staff requires a commitment that the SPDS will be subject to the pertinent provisions of CEI's 10CFR50, Appendix B QA Program during the operations phase.)
260.11.c.8	Noted	Additional accident monitoring instrumentation. (The response needs clarification in that Safety Class Category "2 (electrical)" is not defined and the response to 6 items appears to fall into 7 references. Also, the references made in the response should show all items as being subject to the pertinent provisions of CEI's 10CFR50, Appendix B QA Program during the operations phase.)
260.12	XXXII.6 & XXXIII.4	Conduits, etc. (The response to both items omitted cable trays and should be revised to include cable trays. New note needs to be added per the response and referenced at both Table 3.2-1 locations.)

RESPONSE

260.11.c.1	XXI.3	<p>Safety parameter display system (SPDS): The SPDS at Perry is not subject to the pertinent provisions of 10CFR50, Appendix B during the operations phase.</p> <p>The SPDS as described in Section 4.1 of NUREG 0737 Supplement 1 states:</p> <p>The SPDS should provide a concise display of critical plant variables to the control room operators to <u>aid</u> them in rapidly and reliably determining the safety status of the plant.</p> <p>In describing the design implementation criteria, Section 4.1.c of this document imposes <u>no safety requirements</u> (i.e., Class 1E or Seismic Category I on hardware for the systems.</p>
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Response
to Question

Table 3.2-1
Location

Item
(Comment)

260.11.c.8

Noted

Using the guidance of this document, CEI has committed to install a SPDS system at Perry with a nonsafety classification. The SPDS will be used as an aid to operators for determining the safety status of the plant. All parameters which are displayed on the SPDS and which are safety-related, are also displayed on safety-related instruments in the control room; and, the pertinent provisions of 10CFR50, Appendix B have been applied to these. Therefore, due to its non-safety classification, the provisions of 10CFR50, Appendix B do not pertain to the SPDS during the operations phase.

Additional accident monitoring instrumentation: The safety class category of Items XLII, XLIII, and XLIV in Table 3.2-1 should be "2" in lieu of "2" (electrical). This correction will be added in FSAR Amendment 12.

Items XXI, XXII, and Note 8e are applicable to containment pressure monitor instrumentation. Complete clarification to our previous response is as follows: Additional accident monitoring instrumentation as designated in NUREG-0737 Section II.F.1 through 6 includes: (1) Noble gas effluent radiological monitor (is covered in Table 3.2-1 Sections XLIV and XLV). (2) Continuous sampling of plant effluents (is covered in Table 3.2-1 Section XLVI). (3) Containment high-range radiation monitor (is covered in Table 3.2-1 Sections XLII and XLIII). (4) Containment pressure monitor (is covered in Table 3.2-1 Sections XXI, XXII, Note 8e). (5) Suppression pool level monitor (is covered in Table 3.2-1 Section XXXVII). (6) Containment hydrogen concentration monitor (is covered in Table 3.2-1 Section XXXV.30.g).

Response
to Question

Table 3.2-1
Location

Item
(Comment)

260.12

XXXII.6 &
XXXIII.4

Instrumentation and controls for items in our previous response are safety class except for Items XLV and XLVI and are subject to the provisions of 10CFR50, Appendix B during the operations phase. Instrumentation and controls for Items XLV and XLVI in Table 3.2-1 are designated nonsafety class. A note applicable for these items will be added to Table 3.2-1 as follows:

"Nonsafety class instrumentation and controls specified for radiation or radioactivity monitoring will be subject to the pertinent provisions of 10CFR50, Appendix B during the operations phase."

Conduits, etc.: A paragraph will be added to the end of FSAR Section 3.2.1 (in Amendment 12) to reflect the following:

"During construction, all nonsafety structures systems or components which fall under Regulatory Guide 1.29 Paragraph c.2 are identified through a seismic clearance and anti-fall down inspection program. Such structures or components are then analyzed for the seismic loads and when necessary, additional supports are added or existing supports are modified to ensure structural integrity during a seismic event."

A note will be added to Table 3.2-1 (in Amendment 12) to state that conduit, cable trays, and supports containing Non-1E cables in safety-related structures are subject to the pertinent provisions of 10CFR50, Appendix B during the operations phase.

260.16

FSAR Table 3.2-1 Items XIII, Fuel Service Equipment; XIV, Reactor Vessel Service Equipment; and XVI.3, Fuel Transfer System were revised in Amendment 8 to now reference FSAR Tables 9.1-3, 9.1-5, and 9.1.4, respectively. These tables do not explicitly show which items are subject to CEI's 10CFR50 Appendix B QA Program during the operations phase. These tables should explicitly show this information or the information should be included in Table 3.2-1 where it originally was. The following items were shown to be subject to CEI's 10CFR50, Appendix B QA Program during the operations phase, and the staff position is that they should continue to be shown in this manner:

- Fuel preparation machine
- General purpose grapple
- Dryer and separator sling and head strongback
- Fuel transfer system

RESPONSE

Tables 9.1.3 and 9.1.5 will be revised to reflect a Passive Essential Classification and Seismic I Classification for the fuel preparation machine, general purpose grapple, dryer and separator strongback, and head strongback carousel.

A note will be added to Tables 9.1-3, 9.1-4 and 9.1-5 (in Amendment 12) stating that equipment will be subject to the pertinent provisions of 10CFR50, Appendix B during the operations phase.

260.17 The response to 260.a.6 indicates that the diesel generator intake air filter and exhaust silencer will not be subject to the pertinent requirements of CEI's 10CFR50, Appendix B QA Program during the operations phase. This is reflected in Class NSC per FSAR Amendment 8. The staff position is that these items should be subject to the pertinent requirements of CEI's 10CFR50 Appendix B QA Program during the operations phase. (Our original review of these items did not catch this shortcoming and CEI has not been informed of our objection to the 260.a.6 response.)

RESPONSE

The diesel generator intake air filter is Safety Class 3. The pertinent requirements of 10CFR50, Appendix B will thus be applied to this item during the operations phase. FSAR Table 3.2-1 will be revised in Amendment 12 to reflect the intake air filter included in Item XXIX.10 and deleted from Item XXIX.11.

The exhaust silencer is not subject to the pertinent requirements of 10CFR50, Appendix B during the operations phase based on its nonsafety classification. As described in Section 9.5.8.1 of the Perry FSAR, the silencer is nonsafety-related since any blockage of the exhaust silencer would be automatically bypassed through the blowoff hatch.

260.18 FSAR Table 3.2-1 was revised by Amendment 8 to include the items listed below. The staff position is that these items should be subject to the pertinent requirements of CEI's 10CFR50, Appendix B QA Program during the operations phase. The table should be so revised.

XL.6	Drywell atmospheric radiation monitors
XL.7	Containment atmospheric radiation monitors
XL.8-12	Portable radiation monitors
XL.13	Control room airborne radiation monitors
XLI.A11	Area radiation monitors
XLVII.A11	Portable radiation monitoring equipment
XLVIII	TSC & ECF airborne and area monitors

We note that Page Q&R 17.2-14 of FSAR Amendment 9 addressed these items by stating: "These items are covered by plant operating procedures and administrative controls and are not included in Table 3.2-1 (see Note 1)." Note 1 states (Page Q&R 17.2-13) that "These procedures and controls ... are ... controlled ... by the pertinent requirements of the operational quality assurance program (Chapter 17)." Table 3.2-1 should reflect this commitment for these items.

RESPONSE

A note will be added to Table 3.2-1 (in Amendment 12) stating that nonsafety class instrumentation and controls specified for radiation or radioactivity monitoring will be subject to the pertinent provisions of 10CFR50, Appendix B during the operations phase.