

ITAAC Closure Letter Format

XX/YY/ZZZZ (Date)

To: NRC

From: New Reactor License MNO-xyz, EFG Nuclear Plant

Subject: 225 Day Notification AP1000 ITAAC Item 3.3.6 (7d)

Pursuant to 10 CFR 52.99(c)(2), {Licensee} is notifying the NRC that {Site Name and Unit #(s)} Inspection, Test, Analysis, and Acceptance Criteria (ITAAC) Item 3.3.6 (7d) for the Protection and Safety Monitoring System (PMS) will not be completed by 225 days prior to initial fuel load currently scheduled for {month, day, year}. However, ITAAC 3.3.6 (7d) will be completed prior to operation and an ITAAC Closure Letter will be provided upon completion. This notification is based on the guidance described in NEI-08-XX.

ITAAC Statement

Design Commitment

ITAAC Table 3.3.6 (7d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables

Inspection/Test/Analysis

Inspections of the as-built Class 1E raceways will be performed to confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following:

- Within the main control room and remote shutdown room, the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch.
- Within other plant areas (limited hazard areas), the minimum separation is defined by one of the following:
 - 1) The minimum vertical separation is 5 feet and the minimum horizontal separation is 3 feet.
 - 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables <2/0 AWG.
 - 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum

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vertical separation is 3 inches and the minimum horizontal separation is 1 inch.

- 4) For configurations involving an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway.
 - 5) For configuration involving enclosed raceways, the minimum separation is 1 inch in both horizontal and vertical directions.
- Where minimum separation distances are not maintained, the circuits are run in enclosed raceways or barriers are provided.
 - Separation distances less than those specified above and not run in enclosed raceways or provided with barriers are based on analysis
 - Non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation distance or by a barrier or analyzed is considered as associated circuits and subject to Class 1E requirements.

Acceptance Criteria

Results of the inspection will confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the followings:

- Within the main control room and remote shutdown room, the vertical separation is 3 inches or more and the horizontal separation is 1 inch or more.
- Within other plant areas (limited hazard areas), the separation meets one of the following:
 - 1) The vertical separation is 5 feet or more and the horizontal separation is 3 feet or more except.
 - 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables <2/0 AWG.
 - 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch.

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- 4) For configurations that involve an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the raceway.
 - 5) For configurations that involve enclosed raceways, the minimum vertical and horizontal separation is 1 inch.
- Where minimum separation distances are not met, the circuits are run in enclosed raceways or barriers are provided.
 - A report exists and concludes that separation distances less than those specified above and not provided with enclosed raceways or barriers have been analyzed.
 - Non-Class 1E wiring that is not separated from Class 1E or associated wiring by the minimum separation distance or by a barrier or analyzed is treated as Class 1E wiring.

Actions Achieved toward ITAAC Closure

Significant progress has been achieved to date toward completing this ITAAC, 99% of the installation and associated inspection activities are complete. Inspections and analysis of plant components have been performed to ensure that “Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables”

The cable raceway system layout was designed using a three dimensional computer model. The raceways were routed through the model plant within an appropriate space reservation envelope to ensure that no violations of the separation requirements would occur. Construction drawings and Installation Specifications provided to the installer identified separation criteria, consistent with the ITAAC commitment, that were required to be met during erection activities.

The constructor has installed the cable raceway in accordance with the “Released For Construction” drawings and the Installation Specifications. These components were presented for inspection by Quality Control as appropriate portions of the work were completed. The Independent verification of the Class 1E raceway installation by the Quality Control Group included inspection of the separation criteria attributes identified in “Released For Construction” drawings as well as the Installation Specifications, and was recorded in the inspection report. The completed raceway tickets for the satisfactorily installed and inspected raceways were turned in and recorded in the site’s Electrical Raceway and Cable Tracking System.

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Raceway completion and cable route was validated by Quality Control walk-down of the designated raceways prior to pulling Class 1E cables. Any deviations were documented and resolved prior to cable pull. The completed cable pull tickets for the satisfactorily installed and inspected cables were turned in and recorded in the site's Electrical Raceway and Cable Tracking System.

Cable training within cabinets was independently verified by Quality Control for separation attributes through a series of documented inspections as cables were installed and terminated. The completed termination tickets for the satisfactorily installed and inspected cables were turned in and recorded in the site's Electrical Raceway and Cable Tracking System.

Actions Remaining to Attain ITAAC Closure

Prior to final acceptance of the overall Class 1E raceway and cable system Engineering and Quality Control will perform walk-downs of the plant Class 1E electrical components to identify any potential violations of the required cable separation criteria. Any deviations identified will be recorded, dispositioned and resolved prior to issuing the Final Report. The walk-downs will be performed in accordance with the site Cable Separation Final Walk-down Procedure (Reference 1)

Review of the inspection reports, the site's Electrical Raceway and Cable Tracking System, Design Change documents, Nonconformance Reports, and the Final Report will be performed and determined to be satisfactory before the project can conclude that the cable installed in the plant has been inspected and reviewed to ensure that the required physical separation between cables from different Class 1E divisions and between Class 1E cables and non-Class 1E cables has been achieved. All exceptions to the separation criteria identified in the installation specification and the project drawings will have been identified by Design Change documents or Nonconformance Reports. These exceptions whether identified during installation or by final walk down of the as built configuration will have been evaluated and either corrected, mitigated or accepted as is. These reviews will be documented in the ITAAC 3.3.6-(7d) Closeout Package.

Before issuing the Cable Separation Final Report, Engineering must be able to conclude that separation distances are satisfactory. Those separation distances less than specified by the ITAAC criteria and not provided with enclosed raceways or barriers will have been analyzed and determined to be satisfactory.

ITAAC Closure Schedule

{Licensee} is tracking ITAAC 3.3.6 (7d) in its ITAAC database. ITAAC 3.3.6-(7d) Closeout Package and ITAAC 3.3.6 (7d) Cable Separation Final Report –EFG

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xyz, Revision 0 are scheduled to be issued on {month, day, year}. The Closure Letter for ITAAC 3.3.6 (7d) will follow our review and acceptance of these documents.

Cable Separation Programs have been successfully completed for both new nuclear power plants {Site Name and Unit #} and units being restarted after extended shutdowns {Site Name and Unit #}. These successful industry experiences, in combination with the satisfactory results to date of the completion of the majority portions of this ITAAC at our own project provide confidence that {Licensee} will be able to successfully complete this ITAAC.

If the NRC has any questions regarding this ITAAC item, please contact {name of contact person for Licensee} at {telephone # for contact person}.

Sincerely,

{Signature of Licensee Representative}
{Typed Name of Licensee Representative}
{Title of Licensee Representative}

References (available for NRC review)

- 1 Cable Separation Final Walk-down Procedure