



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 18, 2021

Mr. Kevin Cimorelli
Site Vice President
Susquehanna Nuclear, LLC
769 Salem Boulevard
NUCSB3
Berwick, PA 18603-0467

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 –
SUPPLEMENTAL INFORMATION NEEDED FOR ACCEPTANCE OF
REQUESTED LICENSING ACTION REGARDING EMERGENCY CORE
COOLING TECHNICAL SPECIFICATIONS (EPID L-2021-LLA-0184)

Dear Mr. Cimorelli:

By letter PLA-7950 dated October 5, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21279A026), Susquehanna Nuclear, LLC (the licensee) requested a license amendment to Renewed Facility Operating License Nos. NPF-14 and NPF-22 for the Susquehanna Steam Electric Station, Units 1 and 2, respectively related to the technical specifications for the emergency core cooling system instrumentation.

The U.S. Nuclear Regulatory Commission (NRC) staff performs acceptance reviews of applications to determine if the scope and depth of technical information is sufficient for the staff to complete its technical reviews. The NRC staff also performs an acceptance review to identify whether an application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant. The purpose of this letter is to provide the results of the NRC staff's acceptance review of this amendment request.

Consistent with Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), an application for an amendment to a license (including the technical specifications) must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of required technical information and stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations.

The NRC staff has reviewed the licensee's application and concluded that the information delineated in the enclosure to this letter is necessary to enable the staff to make an independent assessment regarding the acceptability of the proposed amendment request in terms of regulatory requirements for the protection of public health and safety and the environment.

In order to make the application complete, the NRC staff requests the licensee to supplement the application to address the information requested in the enclosure on or by December 16, 2021. This will enable the NRC staff to begin its detailed technical review. If the information responsive to the NRC staff's request is not received by the above date, then the NRC will not accept the application for review pursuant to 10 CFR 2.101, and the NRC will

cease its activities associated with the application. If the NRC subsequently accepts the application for review, then NRC's licensing project manager will inform the licensee, by separate correspondence, of any further information needed to support the staff's detailed technical review.

The NRC staff discussed the information requested and associated schedule in this letter with Mr. Shane Jurek (and others) of the licensee's staff on November 17, 2021.

If you have any questions, please contact me at (301) 415-0489 or Audrey.Klett@nrc.gov.

Sincerely,

/RA/

Audrey L. Klett, Senior Project Manager
Plant Licensing Branch I
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure:
Supplemental Information Needed

cc: Listserv

SUPPLEMENTAL INFORMATION NEEDED
IN SUPPORT OF REVIEW OF LICENSE AMENDMENT REQUEST
TO MODIFY EMERGENCY CORE COOLING SYSTEM TECHNICAL SPECIFICATIONS
SUSQUEHANNA NUCLEAR, LLC
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
DOCKET NOS. 50-387 AND 50-388

By letter PLA-7950 dated October 5, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21279A026), Susquehanna Nuclear, LLC (the licensee) requested a license amendment to Renewed Facility Operating License Nos. NPF-14 and NPF-22 for the Susquehanna Steam Electric Station (Susquehanna), Units 1 and 2, respectively, related to the technical specifications (TSs) for the emergency core cooling system (ECCS) instrumentation. The U.S. Nuclear Regulatory Commission (NRC) staff identified the following information insufficiencies that the licensee would need to address for the NRC to complete its acceptance review of the application.

Acceptance Review Information Insufficiencies

1. Isolation of the Reactor Coolant System (RCS)

The core spray (CS) and low-pressure core injection (LPCI) subsystems are part of the ECCS. At Susquehanna, one check valve and one power-operated pressure isolation valve (PIV) are available on the discharge side in each applicable piping of the CS and LPCI subsystems to isolate the subsystems from the RCS. The PIVs are normally closed and would open on a low reactor steam dome pressure signal, which is limited by a lower allowable value (AV) and an upper AV in TS Table 3.3.5.1-1, Functions 1.c, 1.d, 2.c, and 2.d. The incorporation of the lower AV in the TSs provides reasonable assurance that the CS and LPCI provide coolant to the RCS during a loss-of-coolant accident and satisfy the ECCS performance criteria in Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.46. The upper AV in the TSs provides reasonable assurance of RCS isolation. The proposed TS changes would delete the upper AV from the TSs.

NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR [Light-Water Reactor] Edition," Branch Technical Position (BTP) 5-4, "Design Requirements of the Residual Heat Removal System," Revision 4 (ADAMS Accession No. ML070850123), Section B.2.B.ii describes an acceptable approach for isolating the discharge side of the residual heat removal system from the RCS (i.e., that one or more check valves in series with a normally power-operated PIV shall be provided on the discharge side of the residual heat removal and LPCI subsystems to isolate them from the RCS).

Therefore, the NRC staff needs additional information to evaluate the impact of removing the TS requirement for the upper AV on the ability to isolate the RCS. The NRC staff needs additional information that would allow the NRC staff to determine if there is reasonable assurance that the PIVs would remain closed above the upper AV value.

Enclosure

2. Pressure Relief Valve Capability

The submittal indicated that pressure relief valves (PRVs) are available for protecting the CS and LPCI systems from over-pressurization. However, the submittal does not describe the adequacy of the PRVs' capability to prevent over-pressurization of the low pressure piping from a loss of isolation between the RCS and low pressure piping.

If the licensee cannot show that the PIVs would remain closed above the upper AV value, then the NRC staff needs additional information for determining if there is reasonable assurance that the PRVs would protect the low pressure piping from over-pressurization when the PIVs and check valves cannot be closed.

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 DATED NOVEMBER 18, 2021

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DATE	11/18/2021	11/18/2021	

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