



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

April 18, 2019

Mr. Charles J. Poppe  
15 Clay Creek Drive  
Suffield, CT 06078

SUBJECT: THE FINAL SAFETY EVALUATION REPORT FOR THE STANDARD PLANT  
DESIGN OF THE ADVANCED POWER REACTOR 1400

Dear Mr. Poppe:

Thank you for the letter dated March 8, 2019, regarding the Final Safety Evaluation Report (FSER) for the Advanced Power Reactor 1400 (APR1400) standard plant design. We appreciate your interest in the APR1400 FSER. Your letter is publicly available in the U.S. Nuclear Regulatory Commission's (NRC) Agencywide Documents Access and Management System (ADAMS) under Accession No. ML19081A204.

The NRC staff has reviewed your letter and understands your comments regarding the shutdown cooling system (SCS). As discussed in FSERs for Chapter 5, "Reactor Coolant System and Related Systems," Chapter 15, "Accident and Transient Analyses," and Chapter 16, "Technical Specifications," the NRC staff reviewed multiple sections of the application, as well as the related responses to requests for additional information (RAIs) on this subject.

The NRC staff evaluated the SCS in the FSER for Chapter 5 and concluded that it met the requirements of Title 10 of the *Code of Federal Regulations*, Part 50, Appendix A "General Design Criteria for Nuclear Power Plant," General Design Criterion (GDC) 34, "Residual Heat Removal," and Branch Technical Position (BTP) 5-4, "Design Requirements of the Residual Heat Removal System." The NRC staff evaluated the long-term cooling (LTC) plan in FSER Chapter 15 and concluded that LTC plan met all requirements in GDC 35, "Emergency Core Cooling," for long-term decay heat removal. The NRC staff concluded in the Technical Specifications (TS) FSER, that the generic TS and their bases were consistent with the regulatory guidance in the standard TS for the APR1400 and their bases. The NRC staff also found that the APR1400 TS complied with the requirements of 10 CFR 50.34, "Contents of application; technical information," 10 CFR 50.36, "Technical Specifications," and 10 CFR 50.36(a), "Technical specifications on effluents from nuclear power reactors." We believe that the SCS and the TS, as described in the application, meet all of the applicable requirements as detailed in the FSER chapters identified above.

C. Poppe

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If you have any questions, please contact me at (301) 415-7038 or via e-mail at [William.Ward@nrc.gov](mailto:William.Ward@nrc.gov).

Sincerely,

*/RA/*

William R. Ward, Senior Project Manager  
Licensing Branch 1  
Division of Licensing, Siting,  
and Environmental Analysis  
Office of New Reactors

Docket No. 52-046

cc: See next page

**KHNP Mailing List**

10/06/2018

Daegeun (Tony) Ahn  
Director  
KHNP Washington DC Center  
8100 Boone Blvd, Suite 620  
Vienna, VA 22182

Email

<a href="mailto:hansang.kim@khnp.co.kr">mailto:hansang.kim@khnp.co.kr</a>	[Hansang Kim]
<a href="mailto:dohwan.lee@khnp.co.kr">dohwan.lee@khnp.co.kr</a>	[Do-Hwan Lee]
<a href="mailto:junghokim@khnp.co.kr">junghokim@khnp.co.kr</a>	[Jung-Ho Kim]
<a href="mailto:yunho.kim@khnp.co.kr">yunho.kim@khnp.co.kr</a>	[Yun Ho Kim]
<a href="mailto:jiyong.oh@khnp.co.kr">jiyong.oh@khnp.co.kr</a>	[Jiyong Andy Oh]
<a href="mailto:ahn.daegeun@khnp.co.kr">ahn.daegeun@khnp.co.kr</a>	[Daegeun Tony Ahn]
<a href="mailto:jksuh@khnp.co.kr">jksuh@khnp.co.kr</a>	[Jeong Kwan Suh]
<a href="mailto:hachewung@khnp.co.kr">hachewung@khnp.co.kr</a>	[Che Wung Ha]
<a href="mailto:kang.deogji@khnp.co.kr">kang.deogji@khnp.co.kr</a>	[Deog Ji Kang]
<a href="mailto:sunguk.kwon@khnp.co.kr">sunguk.kwon@khnp.co.kr</a>	[Sun Guk Kwon]
<a href="mailto:ptmaster300@kepco.co.kr">ptmaster300@kepco.co.kr</a>	[Hyun Chul Park]
<a href="mailto:robert.sweeney@consultant.aecom.com">robert.sweeney@consultant.aecom.com</a>	[Robert Sweeney]

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