



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

August 13, 2018

MEMORANDUM TO: Dennis C. Morey, Chief  
Licensing Processes Branch  
Division of Licensing Projects  
Office of Nuclear Reactor Regulation

FROM: Joseph J. Holonich, Project Manager */RA/*  
Licensing Processes Branch  
Division of Licensing Projects  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF CLOSED MEETING HELD ON AUGUST 1, 2018,  
WITH DOOSAN HF CONTROLS TO DISCUSS THE REVISION OF  
AMENDMENT 4 TO THE DOOSAN HF CONTROLS -6000 SAFETY  
SYSTEM

On August 1, 2018, U.S. Nuclear Regulatory Commission (NRC) staff met with representatives from Doosan HF Controls (HFC). The purpose of the meetings was to discuss Amendment 4 to the "HFC-6000 Safety System" topical report. All information related to the meeting and discussed in this summary can be found in the Agencywide Documents Access and Management System (ADAMS) package accession number ML181A13A280.

The meeting was requested by HFC after it withdrew the original Amendment 4 submittal (ADAMS accession number ML18179A171). At the meeting, HFC made a presentation on the changes being made to the Amendment 4 revision. In addition, HFC provided a copy of the revised Amendment 4 for use at the meeting to show where changes were made. The document was returned to HFC once the meeting ended.

During discussions at the meeting, the NRC staff noted that it had had difficulty obtaining access to the HFC SharePoint site during the acceptance review of the original Amendment 4 submittal. HFC committed to look into the problems identified. This was an action from the meeting.

A main point raised by the NRC staff was that the terminology used in Amendment 4 was more related to a microprocessor system and not a field programmable gate array (FPGA). In addition, the NRC staff noted that some of the standards cited in Amendment 4 were not for FPGAs.

CONTACT: Joseph J. Holonich, NRR/DLP/PLPB  
301-415-7297

NRC staff also noted that these concerns could also be found in the more detailed supporting documents that would not necessarily be submitted for review. However, the NRC staff explained that these documents could be made available in HFC's SharePoint site for staff review to support determination of the acceptability of the Amendment 4 revision.

HFC took an action to clarify the terminology before submitting the Amendment 4 revision.

A second area of detailed discussion related to clarifying what components covered in Amendment 4 were developed by HFC and what components were purchased. The NRC staff explained that this differentiation was needed to understand what components were designed and manufactured under the HFC quality assurance (QA) program and what would be subject to commercial grade dedication (CGD).

Identifying component sources and which components were subject to the HFC QA program or CGD was an action from the meeting.

After the technical discussions were complete, the NRC staff provided HFC with a timeline for its review. The NRC staff explained that it planned for a two-year review. This was based on three six-month intervals for preparing requests for additional information, receiving the HFC responses, and developing a draft safety evaluation. Other steps such as finalizing the safety evaluation and conducting the audit accounted for the two years.

The NRC further emphasized that this schedule was based on receiving high-quality and complete information in all submittals. Also, the NRC staff said that the schedule could change, shorter or longer, depending on other review priorities and on how long it took HFC to respond to the NRC.

Actions from the meetings included:

- 1) HFC will ensure NRC staff can access its SharePoint site; and
- 2) HFC will clarify the terminology before submitting the Amendment 4 revision; and
- 3) HFC will ensure the source and qualification process for components is clearly documented in the revised Amendment 4.

Docket No. 99902028

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**ADAMS Accession Nos.: ML18113A285 Summary; ML181213A280 Package**

**\*concurrence via e-mail**

**NRC-001**

| OFFICE | NRR/DLP/PLPB/PM              | NRR/DE/EICB/ABC* | NRO/DEI/ICE/ABC* |
|--------|------------------------------|------------------|------------------|
| NAME   | JHolonich*                   | RAIvarado        | LBetancourt      |
| DATE   | 08/08/2018                   | 08/08/2018       | 08/08/2018       |
| OFFICE | NRR/DLP/PLPB/BC              | NRR/DLP/PLPB/PM  |                  |
| NAME   | DMorey (JRowley <i>for</i> ) | JHolonich        |                  |
| DATE   | 08/13/2018                   | 08/13/2018       |                  |

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