

From: Brian Smith
To: Dave Couser; Pete Miner
Date: 08/04/2006 9:14:14 AM
Subject: Additional I&C Issue

As we discussed, please review the attached information in advance of our call this afternoon. If you have any questions, please give me a call.

Brian Smith, Chief
Gas Centrifuge Facility Licensing Section
301-415-7457

CC: Frederick Burrows; James Downs; Joseph Gitter; Linda Williamson; Roman Shaffer; Stan Echols

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Subject: Additional I&C Issue
Creation Date 08/04/2006 9:14:13 AM
From: Brian Smith

Created By: BWS1@nrc.gov

Recipients

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OWGWPO01.HQGWDO01
FHB CC (Frederick Burrows)

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OWGWPO02.HQGWDO01
FSE CC (Stan Echols)
JGG CC (Joseph Giitter)

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JRD2 CC (James Downs)

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RAS3 CC (Roman Shaffer)

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Route

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Files

MESSAGE

Size

562

Date & Time

08/04/2006 9:14:13 AM

TEXT.htm 1246
usec acp I&C .wpd 6300 08/03/2006 4:16:32 PM

Options

Expiration Date: None
Priority: Standard
ReplyRequested: No
Return Notification: None

Concealed Subject: No
Security: Standard

Junk Mail Handling Evaluation Results

Message is not eligible for Junk Mail handling
Message is from an internal sender

Junk Mail settings when this message was delivered

Junk Mail handling disabled by User
Junk Mail handling disabled by Administrator
Junk List is not enabled
Junk Mail using personal address books is not enabled
Block List is not enabled

NRC's position is that additional assurance beyond NQA-1 is needed regarding software development.

Option 1

State in license application that the design does not include IROFS that use software, firmware, microcode, PLCs, and/or any digital device, including hardware devices that implement data communication protocols.

The license condition below would be added recognizing that the "applicable guidance" would be addressed in the request for approval.

Currently, there are no IROFS that have been specified as using software, firmware, microcode, PLCs, and/or any digital device, including hardware devices which implement data communication protocols (such as fieldbus devices and Local Area Network controllers), etc. Should the design of any IROFS be changed to include any of the preceding features, the licensee shall obtain Commission approval prior to implementing the change(s). The licensee's design change(s) shall comply with accepted best practices in software and hardware engineering, including software quality assurance controls as discussed in the Quality Assurance Program Description (USEC, 2006d) throughout the development process and the applicable guidance of the following industry standards and regulatory guides:

1. American Society of Mechanical Engineers (ASME) NQA-1-1994, Part II, subpart Part 2.7, "Quality Assurance Requirements of Computer Software for Nuclear Facility Applications," as revised by NQA-1a-1995 Addenda of NQA-1-1994 and ASME NQA-1-1994, Part 1, Supplement 11S-2, "Supplementary Requirements for Computer Program Testing."
2. Regulatory Guide 1.168, "Verification, Validation, Reviews, and Audits for Digital Software Used in Safety Systems of Nuclear Power Plants," Revision 1, February 2004.
3. Regulatory Guide 1.169, "Configuration Management Plans for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," September 1997.
4. Regulatory Guide 1.170, "Software Test Documentation for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," September 1997.
5. Regulatory Guide 1.172, "Software Requirements Specifications for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," September 1997.
6. Regulatory Guide 1.173, "Developing Software Life Cycle Processes for Digital Computer Software Used in Safety Systems of Nuclear Power Plants," September 1997.

Option 2

USEC to commit to the "applicable guidance" from the above in the license application now and no future approvals would be needed. We are open to negotiation on the "applicable guidance."