# November 7, 2005

Mr. Tawfik M. Raby Chairman, N-17 National Institute of Standards and Technology Mailstop 8561 Building 235, Room A141 Gaithersburg, MD 20899

Dear Mr. Raby:

SUBJECT: ANS-10.5 N-17 COMMITTEE BALLOT

Enclosed is my ballot for ANS-10.5, "Accommodating User Needs in Computer Program Development (Revision)." I have voted "Approved with Comments." Furthermore, I have reviewed the Scope of the standard, and have no objections.

If you have any questions concerning this ballot, please contact me at 301-415-1127.

Sincerely,

/RA/

Alexander Adams Jr., Senior Project Manager Research and Test Reactor Branch Division of Policy and Rulemaking Office of Nuclear Reactor Regulation

Enclosure: As stated

# **ANSI N-17 COMMITTEE BALLOT**

**DOCUMENT: ANS-10.5**, "Accommodating User Needs in Computer Program Development (Revision)

BALLOT DUE:	November 30, 2005	
		Approved
	X	Approved with Comments
		Not Approved
		Not Voting
Comments: (Ninclude commen	lote – all "Approved with Comments" ts).	and "Not Approved" ballots should
See next page fo	or comments	
		Alexander Adams Jr.
		Print Name
		/RA/
		Signature
		USNRC
		Representing
		November 3, 2005
Return ballot to:		Date
Tawfik M. Raby Chairman N-17		

Chairman, N-17
National Institute of Standards & Technology
Mailstop 8561
Building 235, Room A141
Gaithersburg, MD 20899

# U.S. Nuclear Regulatory Commission Comments

#### ANS-10.5

## Accommodating User Needs in Computer Program Development (Revision)

- 1. Section 5, first paragraph. The paragraph discusses program development influenced by the operational mode of the intended application. Please explain "operational mode."
- 2. Section 5.4.4. When the input represents a model of a physical system, the input preprocessor should check for proper loop closure, including elevation consistency. In the case of a nodal, or volume-based model, the pre-processor should determine that limits such as courant are not being violated.
- 3. Section 5.5.2, second sentence. Suggest adding "numerical diffusion" changing the sentence to read "The choice of an algorithm may affect solution speed, accuracy, numerical stability, numerical diffusion, or use of system resources."
- 4. Section 5.5.4. Suggest adding to bullet list "courant limits (e.g., numerical instability due to inappropriate nodal size)" and "numerical diffusion."
- 5. Section 6.1, third bullet, testing and documentation. Suggest add an item at the top of the list before "test performed" that says "description of validation, verification and assessment program" and add an item after "procedures and data used" that says "ranges of assessment cases."

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Enclosure: As stated

Accession Number: ML053060062 TEMPLATE No.: NRR-106

OFFICE	PRTB:DPR:PM	PRTB:DPR:LA	DSS	PRTB:DPR:BC
NAME	AAdams	EHylton	RLandry	BThomas
DATE	11/03/2005	11/03/2005	11/07/2005	11/07/2005

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