

July 21, 2006

MEMORANDUM TO: Mark H. Salley, Team Leader  
Fire Research Team  
Division of Risk Assessment and Special Projects  
Office of Nuclear Regulatory Research

FROM: Alan Kouchinsky, Fire Protection Engineer /RA/  
Fire Research Team  
Division of Risk Assessment and Special Projects  
Office of Nuclear Regulatory Research

SUBJECT: VERIFICATION OF NUREG-1805 BY HAND CALCULATIONS

The purpose of this memorandum is to submit my hand calculations that verify NUREG-1805 (FDT<sup>S</sup>) spreadsheets to support NUREG-1824 (“Verification and Validation of Selected Fire Models for Nuclear Power Plant Applications”). A total of nine hand calculations were performed (Enclosure). All of the spreadsheets tested have been verified by hand calculations. In performing the hand calculations, an error was discovered for the Forced Ventilation: Method of Deal and Beyler. An errata and updated/revised excel spreadsheet to NUREG-1805 is in the process of completion and will be posted on the public website.

Please contact me if you require additional information.

Enclosure:  
As stated

Contact: Alan Kouchinsky, RES/DRASP/FRT  
(301) 415-6466

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DOCUMENT NAME: G:\DRASP\W&V-HAND CALCS.PDF

OAR in ADAMS? (Y or N) Y

ADAMS Accession No.: ML062020071

Template No. RES-006

Enclosure Accession No.: ML062020082

Package Accession No.: ML062020068

Publicly Available? (Y or N) Y

Date of Release to Public 07/31/2006

Sensitive: N

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