

# PUBLIC SUBMISSION

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**Docket:** NRC-2011-0254

Common-Cause Failure Analysis in Event and Condition Assessment: Guidance and Research

**Comment On:** NRC-2011-0254-0003

Common-Cause Failure Analysis in Event and Condition Assessment: Guidance and Research,  
Draft Report for Comment; Correction

**Document:** NRC-2011-0254-DRAFT-0002

Comment on FR Doc # 2011-29436

11/2/2011  
 76FR67764

## Submitter Information

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**Organization:** SCE&G, Virgil C. Summer Nuclear Station

## General Comment

See attached document for comments.

## Attachments

Comments on Draft NUREG xxxx

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JAN 24 AM 8:16

FILES COLLECTED

SUNSE Review Complete  
 Template - ADM-013

F-RIDS=ADM-03  
 Add = Shen, Song-HU9  
 (SHS)

Comments on Draft NUREG xxxx, Common-Cause Failure Analysis in Event and Condition Assessment: Guidance and Research

Numerous technical errors are present throughout the document, which are identified below. The majority deal with the omission of/or incorrect reference to equations, or not following a standard presentation of terms in the equations.

Page 7	Missing equation for $\alpha$
Page 21	Missing equation for $M$ , the Markov transition matrix
Page 22	Missing equation for $\lambda_k$
Page 22	Missing equation for conditional probabilities
Page 22	Missing reduced transition matrix
Page 23	Missing equation for conditional probabilities
Page 23	Missing equation for conditional initiating event frequency There is a reference to eq. 3.5, when the written annotation is (5) in section 3.
Page 24	There is a reference to eq. 3.6, when the written annotation is (6) in section 3.
Page 25	There is a reference to eq. 3.6, when the written annotation is (6) in section 3.
Page 26	In two places, there is a reference to eq. 3.6, when the written annotation is (6) in section 3.

General comment for pages 23-26: The equation(s) referenced should be clearly stated with equations numbered accordingly.

Page 35	In A.8, the final term should read: $Q_3^{(3)} = \alpha_3 Q_t$ (vice $Q_1^{(3)}$ )
Page 45	In 3 <sup>rd</sup> paragraph, notation for $n_k$ s should read: $n_k^s$ (s should be italicized superscript)
Page 46	Before eq. (B.16), notation for $Q_k$ s should read: $Q_k^s$ (s should be italicized superscript)
Page 47	Before eq. (B.18), notation for $\alpha_k$ s should read: $\alpha_k^s$ (s should be italicized superscript)
Page 47	In last sentence, $\alpha_k$ should read: $\alpha_k$ (k should be italicized)