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Rules and Directives
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STARS-04001

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Chief, Rules and Directives Branch, Office of Administration
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8/29/03
68 FR 52064
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**STRATEGIC TEAMING AND RESOURCE SHARING (STARS)
COMMENTS ON NUREG/CR-6595 REVISION 1, "AN APPROACH FOR
ESTIMATING THE FREQUENCIES OF VARIOUS CONTAINMENT
FAILURE MODES AND BYPASS EVENTS, DRAFT REPORT FOR
COMMENT" (68 FR 52064 of August 29, 2003)**

Gentlemen:

Attached are comments from the Strategic Teaming and Resource Sharing (STARS)¹ nuclear power plants on NUREG/CR-6595 Revision 1, "An Approach For Estimating The Frequencies Of Various Containment Failure Modes And Bypass Events, Draft Report For Comment" as noticed in 68 FR 52064 on August 29, 2003. The stated purpose of this NUREG from the Abstract is to estimate the frequency of large and early releases (LERF) of radioactivity that have a potential for causing early fatalities. One of the risk measures typically reported to the NRC in support of risk-informed applications is the value of LERF, the conditional LERF (CLERF) or the change in LERF. As a study to satisfy the stated purpose, the NUREG is more than adequate. This study also introduces a shutdown containment event tree that may prove useful to future risk informed application submittals.

STARS has concluded that overall, the NUREG presents a reasonable (although conservative) approach to estimating LERF for nuclear power plants. In a few specific areas, however, the document still needs to be updated or revised. Specific comments are attached.

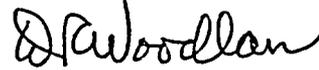
¹ STARS is an alliance of six plants (eleven nuclear units) operated by TXU Energy, AmerenUE, Wolf Creek Nuclear Operating Corporation, Pacific Gas and Electric Company, STP Nuclear Operating Company and Arizona Public Service Company.

Template = ADM-013

E-REFDS = ADM-03
All = D. O'Neal (DMO)

The STARS plants appreciate the opportunity to comment on this NUREG/CR. If there are any questions regarding these comments, please contact me at 254-897-6887 or dwoodla1@txu.com.

Sincerely,

A handwritten signature in cursive script that reads "D. R. Woodlan".

D. R. Woodlan, Chairman
Integrated Regulatory Affairs Group
STARS

Specific Comments

As part of the analyses required to satisfy the requirements of Generic Letter 88-20, all plants had to report a LERF value for the plant. This value could be obtained from a detailed Level 2 analysis of containment response and radioactive release or from various simplified methods that focused on LERF and were based on previous PRA Level 2 results. Most of the work to support the IPE requirements was completed in the early 1990's and was based on work performed in the mid-to-late 1980's, for example the NUREG-1150 studies. References 1, 5, and 6 in Section 2 are the summary of IPE results or the original NUREG-1150 analyses. The simplifications presented in the draft NUREG are based in large part on these IPE/NUREG-1150 results. It is now approximately 15 years later, and with the exception of direct containment heating, few later references are cited in the NUREG. It may be worth noting that the NUREG does not contain results of significant number of new reference material in the field.

The NRC NUREGs that provide guidance for Risk Informed application submittals do not require a quantification of containment failure modes other than those that contribute to the large, early release. In several instances in the draft NUREG, the clear implication is that evaluation of late containment failure may be necessary to fully answer the LERF questions (specifically mentioned for seismic and high wind analyses pg. 2-6 and page 1-3 where evacuation may be impeded). Based on recent SDP results that focused on external events, this may indicate an expectation in future SDP evaluations which plants may need to be aware of.

In several places in the study, comments such as, "...have been found..." (pg 2-2), "...have found..." (pg 2-2), "...may be..." (pg 2-5) are used as the basis for or a justification for the split fractions given. No reference is cited. Either references should be cited or the document should note that the conclusions are based on the opinions, best judgement, etc. of the authors and therefore may have a greater uncertainty than conclusions which are supported by documents studies or research.

There is significant discussion on the effects of induced steam generator tube rupture, degraded tube conditions, and the effects of ATWS events of induced SGTR. The reference is the Draft Regulatory Guide DG-1074. The draft guide tries to relate tube inspection findings to potential tube failure under beyond design basis conditions and may be excessively conservative.

In several places, the NUREG indicates that a licensee should provide information where an approach other than this simplified approach is taken. If this information is required as part of a risk-informed submittal, a plant specific containment response analysis may be a better answer than the generic results provided by following the guidance in this NUREG and should be considered an acceptable alternative.