

# Requirements for Low Power and Shutdown Probabilistic Risk Assessment

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Comments and suggestions for revision should be submitted to:

Secretary, Joint Committee on Nuclear Risk Management  
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*(This Foreword is not a part of "Requirements for Low Power and Shutdown Probabilistic Risk Assessment," ANS/ASME-58.22-2014.)*

## FOREWORD

The American Society of Mechanical Engineers (ASME) Board on Nuclear Codes and Standards (BNCS) and the American Nuclear Society (ANS) Standards Board mutually agreed in 2004 to form the Nuclear Risk Management Coordinating Committee (NRMCC). The NRMCC was chartered to coordinate and harmonize standards activities related to probabilistic risk assessment (PRA) between ASME and ANS. A key activity resulting from NRMCC was the development of PRA standards structured around the Levels of PRA (i.e., Level 1, Level 2, and Level 3) to be jointly issued by ASME and ANS. In 2011, ASME and ANS decided to combine their respective PRA standards committees to form the ASME/ANS Joint Committee on Nuclear Risk Management (JCNRM).

### *Publication for Trial Use*

Publication of this standard for trial use has been approved by the JCNRM as a stand-alone standard. However, the writing of this standard began under the ANS Risk Informed Standards Committee; hence, ANS writing guidance has been followed. The current plan is for this standard, once approved as an ANSI standard, to be incorporated into RA-S-1.1, the "Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications."

The previous drafts of this standard have gone through several rounds of reviews by the JCNRM members, and all comments have been addressed in this version published for trial use. While the comments were resolved, there are remaining technical issues that are best resolved by testing this standard against different actual applications. This will ensure that the lessons learned from pilot applications are adequately addressed in this standard. Examples of pilot applications might include a gap analysis for an existing Low Power and Shutdown (LPSD) PRA model, or the development of new LPSD PRA models according to this standard. The JCNRM encourages any form of trial use of this proposed standard and requests feedback from trial users.

The project team and the readiness review team of this standard have identified the following potential issues, and it is hoped that these can be addressed in the trial use applications. Both the project team and the consensus ballot readiness review team believe that any of the requirements included in the LPSD Standard can be addressed with existing methods and data or supplemented by modest research of existing industry experience data. Nevertheless, the project team believes this should be verified during the trial use applications.