
Attachment 5

Integrated Safety Analysis (ISA)

- c. Explains for processes vulnerable to criticality accidents, why it is expected that the given design and design bases will meet the double contingency requirement of 10 CFR 70.64(a)(9).

As discussed in Item iii below, the accident consequences will depend on the design bases of the principal SSCs. When analyzing accident sequences, the applicant should examine the failure of ALL features, structures, control devices, equipment, or procedures to ensure that all principal SSCs are appropriately identified.

iii. Consequence assessment

The applicant's consequence assessment is sufficiently quantitative to compare the consequence estimates against the performance requirements of 10 CFR 70.61. The applicant does not determine the consequences for all accidents and all SSCs individually; however, the applicant demonstrates that the consequence assessment is bounding through the applicant's analysis of representative processes sufficient to cover all principal types of hazardous materials.

iv. Likelihood Assessment

The applicant provides information that indicates that the frequencies of accidents are in accordance with the acceptance criteria for the applicant's likelihood definitions. The applicant's safety assessment of the design bases with respect to likelihood provides reasonable assurance that the likelihood requirements of 10 CFR 70.61 will be met by the final design. The applicant commits to using equivalent or refined definitions of likely, unlikely, highly unlikely, and credible in the ISA. In addition, the applicant describes the likelihood evaluation method to be used in the ISA. The applicant makes these methods and definitions part of the design bases.

F. The applicant describes the principal SSCs. This description should include:

- i. The number, types, and description of the principal SSCs. In particular, the applicant describes the general features that indicate that the principal SSCs can be designed and constructed to meet the design bases.

The description of the principal SSCs need not be at the level of detailed engineering drawings. However, principal safety function features, devices, amounts of hazardous materials; and the principal dimensions, layout, and location relevant to safety must be given. Each general type of principal SSC or process using the same design bases must be described. However, approximate numbers of each general type of principal SSC or process is sufficient. It is the safety basis that is to be assessed.

- ii. For each principal SSC, the parameters that will be specified or controlled for safety and the ranges and values of those parameters that constitute the design bases. For active engineered controls, the applicant states the type of sensing and the type of control device. For passive engineered controls, the applicant states the general geometry,