

effects of aging in the period of extended operation are adequately managed.

The Commission disagrees with the commenter's statement that this change was arrived at without regard to reactor aging and safety. As discussed above, greater understanding that (1) aging is a continuous process and (2) that the actual effects of aging are not explicitly linked, from a technical perspective, to the term of an operating license, led the Commission to consider deleting ARDUTLR. The Commission's current determination that a narrower set of systems, structures, and components than that of the previous license renewal rule should require evaluation to ensure that the effects of aging will be adequately managed in the period of extended operation recognizes that many licensee programs and regulatory activities will continue to adequately manage the adverse effects of aging during the period of extended operation. Therefore, the Commission believes that this alteration is firmly based on an appropriate consideration of reactor safety and aging. The final rule reflects a greater understanding of effective aging management (focus on effects rather than mechanisms) and more realistic expectations of aging in the extended period of operation.

*c. Systems, Structures, and Components Within the Scope of License Renewal*

(i) *Scope of the License Renewal Review and Elimination of the Technical Specification Limiting Conditions for Operation Scoping Category*

In the final rule, the Commission has deleted the definition (in § 54.3) of systems, structures, and components important to license renewal and replaced it with a new section entitled § 54.4 Scope. This new section continues to define the set of plant systems, structures, and components that would be the initial focus of a license renewal review. From this set of systems, structures, and components, a license renewal applicant will determine those systems, structures, and components that require review for license renewal. The intent of the definition of systems, structures, and components important to license renewal (i.e., to initially focus the review on important systems, structures, and components) remains intact in the new § 54.4.

In the SOC for the previous license renewal rule, the Commission concluded that applicants for license renewal should focus on the management of aging for those systems, structures, and components that are of

principal importance to the safety of the plant. The Commission also believed that the focus of an aging evaluation for license renewal cannot be limited to only those systems, structures, and components that the Commission has traditionally defined as safety-related. Therefore, the Commission determined that, in order to ensure the continued safe operation of the plant during the renewal term, the initial focus of license renewal should be (1) safety-related systems, structures, and components, (2) nonsafety-related systems, structures, and components that directly support the function of a safety-related system, structure, or component or whose failure could prevent the performance of a required function of a safety-related system, structure, or component, (3) systems, structures, and components relied upon to meet a specific set of Commission regulations, and (4) systems, structures, and components subject to the operability requirements contained in the facility technical specification limiting conditions for operation.

Since publishing the previous rule, the Commission has gained considerable preapplication rule implementation experience and gained a better understanding of aging management, in part, through the development of a regulatory guide to implement the maintenance rule, 10 CFR 50.65. The Commission now believes that (1) by appropriately crediting existing licensee programs that manage the effects of aging and (2) by appropriately crediting the continuing regulatory process, it can more narrowly define those systems, structures, and components within the scope of license renewal and more narrowly focus the license renewal review.

The Commission continues to believe that the initial scope for the license renewal review should not be limited to only those systems, structures, or components that the Commission has traditionally defined as safety-related. However, as discussed below (see Justification for the Elimination of the Technical Specification Limiting Conditions for Operation Scoping Category) the Commission determined that the requirement to consider additional systems, structures, and components subject to the operability requirements contained in the facility technical specification limiting conditions for operation is unnecessary and has been deleted.

The first two categories of systems, structures, and components discussed in the new scope section (§ 54.4(a)(1) and (a)(2)) are the same categories defined in the previous definition of

systems, structures, and components important to license renewal. These scoping categories concern (1) all safety-related systems, structures, and components and (2) all nonsafety-related systems, structures, and components that support the function of a safety-related system, structure, or component or whose failure could prevent a safety-related system, structure, or component from satisfactorily fulfilling its intended function(s). These two categories are meant to capture, as a minimum, automatic reactor shutdown systems, engineered safety feature systems, systems required for safe shutdown (achieve and maintain the reactor in a safe shutdown condition), and nonsafety-related systems, such as auxiliary systems, necessary for the function of safety-related systems.

The third category of systems, structures, and components discussed in the new scope section (§ 54.4(a)(3)) are those systems, structures, and components whose functionality may be relied on in safety analyses or plant evaluations to perform a function that demonstrates compliance with the Commission's regulations for 10 CFR 50.48 (Fire Protection), 10 CFR 50.49 (Environmental Qualification), 10 CFR 50.61 (Pressurized Thermal Shock), 10 CFR 50.62 (Anticipated Transients Without Scram), and 10 CFR 50.63 (Station Blackout). This category is also specified in the previous definition of systems, structures, and components important to license renewal and included those systems, structures, and components relied upon to meet certain regulations. This category was developed to ensure that important systems, structures, and components that may be considered outside the traditional definition of safety-related and outside of the first two categories in § 54.4, would be included within the initial focus of license renewal. Through evaluation of industry operating experience and through continuing regulatory analysis, the Commission has reaffirmed that systems, structures, and components required to comply with these regulations are important to safe plant operation because they provide substantial additional protection to the public health and safety or are an important element in providing adequate protection to the public health and safety. The Commission, therefore, concludes that these systems, structures, and components should be included as part of the initial scope of the license renewal review.

In their comments on the proposed revision to the rule, NUGEQ noted that there is substantial overlap between the