

REGULATORY ANALYSIS

Draft Regulatory Guide - 4023 Aquatic Environmental Studies for Nuclear Power Stations

1. Statement of the Problem

The U.S. Nuclear Regulatory Commission (NRC) does not currently have any guidance for aquatic environmental studies. The Advisory Committee on Reactor Safeguards (ACRS) issued a recommendation in a March 25, 2010 letter to the NRC to create such an aquatic regulatory guide. New guidance is expected to minimize NRC's issuance of requests for additional information (RAIs) and licensees' and applicants' performance of additional analyses to address those RAIs. These additional activities have resulted in delays in completing reviews in the past. Further, the additional RAIs resulted in increased costs to licensees, either because of the costs associated with responding to them, or NRC charges for additional staff time to complete the reviews. Therefore, considerations should be given to the development of a guide on aquatic environmental studies as it may increase efficiency of NRC reviews as applications may be more similar in the future.

2. Objective

The objective of this regulatory action is to assess the need to develop guidance for aquatic environmental studies for nuclear power stations. Such guidance would be used to support applicants preparing for environmental reviews.

3. Alternative Approaches

The NRC staff considered the following alternative approaches:

1. Do not develop Regulatory Guide 4023.
2. Develop Regulatory Guide 4023.

Alternative 1: Do Not Develop Regulatory Guide 4023

Under this alternative, the NRC would not develop this guidance, and applicants would continue to submit applications without any NRC guidance regarding aquatic studies. If NRC takes no action, there would not be any changes in costs or benefit to the public, applicants, or NRC. However, the "no-action" alternative would not comply with the ACRS recommendation to create and issue such guidance.

Alternative 2: Develop Regulatory Guide 4023

Under this alternative, NRC would develop Regulatory Guide 4023 to provide direction for applicants who need to conduct aquatic studies to comply with NRC's environmental regulations. The impact to the public would be the voluntary costs associated with reviewing and providing comments to NRC during the public comment period. The value to NRC staff and its applicants would be the benefits associated with enhanced efficiency and effectiveness in using a common guidance document as the technical basis for applications and other interactions between the NRC and its regulated entities. Finally, development of the guidance would allow NRC to comply with the ACRS recommendation to create and issue the regulatory guide.

4. Comparison of Alternatives

For Alternative 1, the benefit would be that no agency resources would be committed to developing the regulatory guide. Applicants would continue to have no guidance to follow for aquatic environmental studies. They would not incur any costs needed to implement the guide. However, Regulatory Guide 4023 would not be developed and, therefore, NRC would not comply with the ACRS recommendation.

For Alternative 2, the value to NRC staff and its applicants in developing the guide would be the benefits associated with providing guidance to give direction for designing and implementing aquatic environmental studies. The impact on the NRC would be the costs associated with preparing and issuing the regulatory guide. The impact on the public would be the voluntary costs associated with reviewing and providing comments to the NRC during the public comment period. The costs to applicants would likely be reduced because fewer RAIs are anticipated if applicants follow Regulatory Guide 4023.

Conclusion

Based on this regulatory analysis, the NRC staff recommends development of Regulatory Guide 4023. The staff concludes that the proposed action would enhance an applicant's ability prepare the environmental report component of an application. Following such guidance will reduce staff review time and the need for RAIs. The staff sees no adverse effects associated with developing this regulatory guide.