

VALUE/IMPACT STATEMENT

1. THE ACTION

1.1 Description

Nuclear power plant personnel, in accordance with 10 CFR Part 19, must receive training in radiation protection to ensure that they are aware of and prepared to cope with radiological hazards. The training must be commensurate with the individual's duties and responsibilities. Paragraph 20.1(c) of 10 CFR Part 20 states that occupational radiation exposure should be kept "as low as is reasonably achievable" (ALARA). Appropriate training is an essential aspect of an ALARA program. Regulatory Guide 8.27, "Radiation Protection Training for Personnel at Light-Water-Cooled Nuclear Power Plants," discussed in this statement, will furnish guidance on the extent of training necessary in radiation protection training programs.

1.2 Need

Available information indicates that radiation protection training programs exist at all nuclear power plants but that there are wide variations in program scope and depth among plants. In some instances, programs include requirements that are needlessly expensive and time consuming. In other cases, the need for guidance with respect to program content is indicated by deficiencies in applicants' program descriptions. This regulatory guide establishes the NRC staff position regarding acceptable training programs and provides a basis for the evaluation of such programs.

Training is a major factor in controlling exposure. In the action plan (SECY-77-54)* prepared by the NRC Task Group on Occupational ALARA, guidance on training was given top priority. This regulatory guide will meet the relevant recommendation of the task group.

1.3 Value/Impact

1.3.1 NRC

Value - This guide provides a basis for staff review of applicants' commitments to radiation protection training and licensees' radiation protection training programs and provides a basis for NRC inspection of the programs to ensure that they are conducted as approved.

Availability of the guide should result in more effective and efficient evaluation of training programs and acceptably small time and manpower requirements for evaluating the training programs. Without the guidance, program evaluation is ineffective or highly time consuming.

The principal value to the staff of providing the guidance is that it seems the most cost-effective way of ensuring adequate training programs.

Impact - No impact is foreseen.

1.3.2 Other Government Agencies

Not applicable, unless the government agency is an applicant or licensee.

1.3.3 Industry

Value - The guidance is expected to benefit applicants by reducing occupational radiation exposures. Experience shows that exposure reduction is truly cost reduction. Secondary benefits expected include improved labor relations and, possibly, improved relations with the public. Also, the preparation and maintenance of suggested training records** may result in the elimination of redundant training and, consequently, in reduced costs.

Impact - It will be necessary for applicants (or their contractors) to spend additional time describing their programs in their safety analysis reports (SARs) if they choose alternatives other than those provided in the guide. Because of training program variability, improvements in licensee training programs may be necessary in some instances. However, the added cost from this action is not expected to be great since (1) program descriptions are necessary for internal purposes (e.g., to ensure uniform and adequate training), (2) existing training programs are normally revised periodically, (3) the guidance is based on a regulatory requirement that has been in effect for several years, (4) the guidance represents current staff practices, and (5) nothing in the guide is intended to increase current recordkeeping requirements.

1.3.4 Workers

The guide should result in improved worker protection by helping to ensure that the individual worker has enough knowledge to work safely, use available protective measures, and obtain appropriate guidance in accordance with ALARA concepts.

1.3.5 Public

Value - The general public should benefit to some extent from a reduction in occupational exposure and heightened awareness of radiological hazards.

* This Commission paper, dated February 4, 1977, is available for public inspection or copying for a fee at the NRC Public Document Room, 1717 H Street NW., Washington, D.C.

** Training records are covered in standard technical specifications referenced in Regulatory Guide 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants, LWR Edition," which is based on §50.36 of 10 CFR Part 59.

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Impact - No direct impact on the public is foreseen.

2. TECHNICAL APPROACH

Although there will be technical alternatives in the development and conduct of training programs based on the guide, only procedural alternatives were available in preparing the guide.

3. PROCEDURAL APPROACH

3.1 Procedural Alternatives

Several methods of issuing the proposed guidance were considered, including an NRC regulation, an ANSI standard endorsed by a regulatory guide, a NUREG-series report, a branch position, and a regulatory guide. These are discussed in Section 3.2.

3.2 Value/Impact of Alternatives

An NRC regulation requires a complex and time-consuming legal procedure that is more suitable for general requirements than specific guidance. Regulations do not generally contain the detail included in the guide. The difficulty involved in revising the guidance would be greater for this alternative than for the others. An advantage would be that the regulation would legally require conformance, whereas the other alternatives would not. In general, however, the relatively narrow subject matter does not warrant use of this alternative.

No ANSI standard on the subject is known to be under preparation. This procedure could be logically undertaken by the Health Physics Society as an addition to the ongoing ANSI N13 Committee activities. However, past history of these working groups indicates that standards developed by them cover a much broader base and usually require more than 2 years for development. Issuance of an endorsing regulatory guide would take an additional year or more. As with the regulation alternative, it is believed that the narrow subject matter and the time involved work against use of this alternative.

NUREG-series reports can be prepared and published more rapidly than can the other alternatives. NRC practice, however, a NUREG-series report cannot attain regulatory positions. Since positions are an integral part of the guidance, use of a NUREG-series report is not suitable.

The Office of Nuclear Reactor Regulation has not yet prepared a branch position on this subject and has indicated that a regulatory guide on the subject would be appropriate. Also, branch positions have limited circulation and are considered to be temporary measures that are to be used

only until a more permanent mode of guidance can be issued.

The issuance of a regulatory guide is the most appropriate alternative in terms of time, content, and application. Also, the development of a regulatory guide provides for comments by interested persons.

3.3 Decision on Procedural Approach

A regulatory guide based on discussions with and comments from the various interested parties was determined to be the best approach.

4. STATUTORY CONSIDERATIONS

4.1 NRC Authority

Section 19.12 of 10 CFR Part 19 requires that personnel be given instruction in radiation protection that is commensurate with the potential radiological health protection problems encountered by these personnel.

4.2 Need for NEPA Assessment

The issuance of the guide is not a major action. The guide merely explains and elaborates on an existing requirement (§ 19.12 of 10 CFR Part 19). There will be no effect on the environment. Therefore, there is no need for a NEPA assessment.

5. RELATIONSHIP TO OTHER EXISTING OR PROPOSED REGULATIONS OR POLICIES

When Regulatory Guide 1.70, "Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants, LWR Edition," is next revised, consideration should be given to including at least those portions of this guide that deal with information to be included in SARs.

This guide is consistent with and cross-references Regulatory Guides 8.8, "Information Relevant to Ensuring that Occupational Exposures at Nuclear Power Stations Will Be As Low As Is Reasonably Achievable," and 8.10, "Operating Philosophy for Maintaining Occupational Radiation Exposures As Low As Is Reasonably Achievable." When these two guides are revised, consideration should be given to referencing this guide.

6. SUMMARY AND CONCLUSION

The values and impacts of the action will vary widely from plant to plant. In some cases, impacts may outweigh values; in others, the reverse will be true. In general, however, it was the expert judgment of the ALARA task group that the value will be greater, in general, than the impact. Therefore, the regulatory guide has been issued.