

DRAFT VALUE/IMPACT STATEMENT

1. PROPOSED ACTION

1.1 Description

The applicant (licensee) of a nuclear power plant is required by the Commission's regulations to provide instrumentation to (1) monitor variables and systems for accident conditions as appropriate to ensure adequate safety and (2) monitor the reactor containment atmosphere, spaces containing components for recirculation of loss-of-coolant accident fluid, effluent discharge paths, and the plant environs for radioactivity that may be released from postulated accidents. This revision to Regulatory Guide 1.97 proposes to improve the guidance for plant and environs monitoring during and following an accident.

1.2 Need

Regulatory Guide 1.97 was issued as an effective guide in August 1977. At the time the guide was issued, it was recognized that more specific guidance than that contained in the guide would be required. However, the difficulty in developing the guide to the point where it could be initially issued was evidence that experience in using the guide as it then existed was essential before further development of the guide would be meaningful.

Therefore, in August 1977, the staff initiated Task Action Plan A-34, "Instruments for Monitoring Radiation and Process Variables During an Accident." The purpose of the task action plan was to develop guidance for applicants, licensees, and staff reviewers concerning implementation of Regulatory Guide 1.97. Such effort would provide a basis for revising the guide.

When the staff was ready to issue the results of the Task Action Plan A-34 effort, the accident at TMI-2 occurred. Subsequently, the TMI-2 Lessons Learned Task Force has issued its "Status Report and Short-Term Recommendations," NUREG-0578. This report, along with the draft Task Action Plan A-34 report; Draft 1 of Regulatory Guide 1.97, dated April 12, 1974; and Standard ANS-4.5, Draft 4, dated November 1979, provides ample basis for revising Regulatory Guide 1.97.

1.3 Value/Impact of the Proposed Action

1.3.1 NRC Operations

Since a list of selected variables to be provided with instrumentation to be monitored by the plant operator during and following an accident has not been explicitly agreed to in the past, the proposed action should result in more effective effort by the staff in reviewing applications for construction permits and operating licenses. The proposed action will establish an NRC position by taking advantage of previous staff effort (1) in completion of a generic activity (A-34), (2) in evaluating the lessons learned from the TMI-2 event (NUREG-0578), and (3) in conjunction with effort in developing a draft national standard (ANS-4.5). For future plants, the staff review will be simplified with guidance contained in the endorsed industry standard and the regulatory guide, which includes a list of variables for accident monitoring. Consequently, there will be no significant impact on the staff. There will, however, be effort required to review each operating plant and plant under review to determine the extent of backfitting required. This will be done on a case-by-case basis.

1.3.2 Other Government Agencies

Not applicable, unless the government agency is an applicant.

1.3.3 Industry

The proposed action establishes a more clearly defined NRC position with regard to instrumentation to assess plant and environs conditions during and following an accident and, therefore, reduces uncertainty as to what the staff considers acceptable in the area of accident monitoring. Most of the impact on industry will be in the area of providing instrumentation to indicate the potential breach and the actual breach of the barriers to radioactivity release, i.e., fuel cladding, reactor coolant pressure boundary, and containment. There will be some impact due to a heretofore unspecified variable to be monitored (i.e., water level in reactor) that has been identified during the evaluation of TMI-2 experience and will require development.

A cost estimate of the impact on industry for future plants has not yet been made but will be developed by the staff, with industry input, during the comment period. The staff intends to meet with the various owners' groups and determine, on a case-by-case basis, the cost impact on each individual operating plant and plant under review as it determines the extent of backfitting in each case.

1.3.4 Public

The proposed action will improve public safety by ensuring that the plant operator will have timely information to take any necessary action to protect the public.

No impact on the public can be foreseen.

1.4 Decision on Proposed Action

As previously stated, more definitive guidance on instrumentation to assess plant and environs conditions during and following an accident should be given.

2. TECHNICAL APPROACH

This section is not applicable to this value/impact statement since the proposed action is a revision of an existing regulatory guide, and there are no alternatives to providing the plant operator with the required information.

3. PROCEDURAL APPROACH

Previously discussed.

4. STATUTORY CONSIDERATIONS

4.1 NRC Authority

Authority for this guide would be derived from the safety requirements of the Atomic Energy Act through the Commission's regulations, in particular,

Criterion 13, Criterion 19, and Criterion 64 of Appendix A to 10 CFR Part 50, which require, in part, that instrumentation be provided to monitor variables, systems, and plant environs to ensure adequate safety.

4.2 Need for NEPA Assessment

The proposed action is not a major action as defined in paragraph 51.5(a)(10) of 10 CFR Part 51 and does not require an environmental impact statement.

5. RELATIONSHIP TO OTHER EXISTING OR PROPOSED REGULATIONS OR POLICIES

No conflicts or overlaps with requirements promulgated by other agencies are foreseen. This guide does include the variables to be monitored on site by the plant operator in order to provide necessary information for emergency planning. However, emergency planning and its relationship to other agencies is provided by other means. Implementation of the proposed action is discussed in Section D of the proposed revision.

6. SUMMARY AND CONCLUSIONS

The proposed revision to Regulatory Guide 1.97, "Instrumentation For Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident," should be issued.