do seismic IPEEEs using the modified procedures described above must inform NRC in writing of their intent to do so. If the revised submittal schedule differs from previously committed schedules, then the new proposed schedule must be included in the response. NRC will schedule meetings with the licensee, if requested, during the examinations to discuss subjects raised by licensees and to give necessary clarifications.

Licensees who do not modify their seismic IPEEs are not expected to submit any response to this generic letter.

## Required Response

Within 60 days from the date of this generic letter, all addressees who voluntarily choose to perform seismic IPEEEs using the modified procedures described above are required to submit a response containing the information requested above.

Address the required written reports to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555, under oath or affirmation under the provisions of Section 182a, Atomic Energy Act of 1954, as amended, and Section 50.54(f) of Title 10 of the Code of Federal Regulations (10 CFR 50.54(f)).

## **Backfit Discussion**

This generic letter only requests information under the provisions of 10 CFR 50.54(f) from addressees who voluntarily choose to do seismic IPEEEs using the modified procedures described above. Therefore, the staff has not performed a backfit analysis. The information requested is needed to evaluate voluntary changes to the seismic portions of IPEEE in response to the information in this generic letter.

The evaluation required by 10 CFR 50.54(f) to justify this information request is included in the preceding discussion.

## Attachments:

- 1. Comments and Resolution
- 2. References

## Attachment 1—Comments and Resolution

All significant comments and concerns raised at and after the workshop, together with staff's response, are summarized below.

(1) Candidates plant sites for seismic scope reduction: The industry suggested that candidate sites should not be limited to focused-scope plants.

Response: In addition to modifying the scope for focused-scope plants, the staff also reduced the scope of review for full-scope plants by eliminating the evaluation of reactor internals.

(2) Use of absolute hazard or risk criteria for rebinning or sub-binning candidate sites: The comments indicated that the absolute risk criterion should play a significant role in the seismic rebinning.

Response: The staff considered absolute seismic hazard and risk criteria when it reconsidered seismic rebinning. However, the inherent uncertainty in the absolute number would affect decision making, in that small variations in the CDF threshold or in the approximately calculated CDFs of candidate plants would significantly affect the binning for many plants. No consensus was reached on the specific risk criterion that should be selected for the rebinning process. Therefore, the staff did not recommend using an absolute risk criterion when determining whether to reduce the seismic scope. However, licensees may use numerical values in determining which plant-specific improvements should be implemented.

(3) Overall reduction of seismic scope for all candidate sites: The suggested reduction as presented in the ERI report, with the exception of reactor internals, would not reduce the scope of seismic review.

Response: Past experience demonstrated that certain weaker components need to be retained in the IPEEE. Attachment 1 describes the rationale for retaining the evaluations of those critical components and items.

(4) Role of the licensee's seismic review team (SRT): Certain utilities expressed concern that the role of the licensee's SRT in decision making is not clear

Response: Although the guidance in NUREG–1407 allows for the use of judgment and latitude in implementing the IPEEE program, certain utilities may not have used the most cost-efficient and expedient approach. The staff wants to emphasize that the SRT has an important role in determining how to implement the IPEEE program. The importance and flexibility of the SRT have been stated clearly in the IPEEE guidance.

(5) Evaluation of the effects of soilrelated failures: No simple or costeffective improvements may be available for plants.

Response: Although simple or costeffective improvements may not be available for low seismic hazard sites to deal with the effects of soil-related failures, soil-related failures are still considered to be important for relatively high seismic hazard sites in the seismic IPEEE. Therefore, the staff concludes that the licensees of focused-scope plants may eliminate the evaluation of soil-related failures from their seismic IPEEE programs. However, the full-scope plants should continue evaluating the effects of soil-related failure, to gain insights from those evaluations. However, the evaluation effort should be focused only on safety-related supporting systems and equipment that are founded on soil such that their function might be affected by soil-related failures.

(6) *Cost savings:* The potential cost savings associated with eliminating certain evaluations described in the NEI white paper (Reference 6) are high.

Response: The experience gained at certain plants indicated that the potential cost savings are likely to be substantially lower than those presented in the NEI paper. Some of the savings cited by the utility personnel can be achieved without changing scope, since NUREG–1407 offers flexibility such as in eliminating detailed evaluation of reactor internals and using an alternate approach to bad actor <sup>1</sup> relay assessment.

(7) Seismic capacity evaluation of reactor internals: Should the evaluation of reactor internals be eliminated?

Response: The results of a few seismic PRAs indicated that un-cracked reactor internals are inherently rugged (having seismic capacities well beyond the requested earthquake review level of 0.3g) and do not contribute significantly to the core damage frequency. However, a significant effort is involved in calculating the fragility or capacity of the reactor internal components. On the basis of earlier study results (assuming un-cracked reactor internals) and the perceived reduction of seismic hazard estimates and associated seismic risk, the staff concluded that the cost of the evaluation outweighs the risk of the failure of reactor internal components and proposes to eliminate them from the examination. However, the staff is aware of recent observations of cracks associated with reactor internals at some plants. The issue is not yet resolved and is being evaluated separately both as an operating issue (i.e., within design basis) and with respect to severe accident implications (i.e., beyond design basis), therefore, eliminating this item will not detract from the IPEEE.

(8) Generic seismic fragilities used in seismic rebinning: The seismic rebinning on the basis of generic seismic fragilities, as was done in the ERI's

<sup>&</sup>lt;sup>1</sup>"Bad actor" relays, as described in NUREG— 1407, are those low-seismic-ruggedness relays identified by USI A–46 implementation.