

Nuclear Risk Research Center (NRRC)
Central Research Institute of the Electric Power Industry (CRIEPI)
1-6-1 Otemachi, Chiyoda-ku, Tokyo, 100-8126, Japan

Dr. George Apostolakis
Director

June 29, 2026

Mr. J.W. Stetkar, Chairman
Technical Advisory Committee

Subject: TAC Report titled "PRELIMINARY NRRC RESEARCH PLAN FOR FISCAL YEAR
2027" dated June 7, 2026

Dear Chairman Stetkar:

We appreciated the interactions with TAC throughout the review of our research plan and the Committee's insights. The NRRC reply to the TAC conclusions and recommendations is as follows.

1. Research plan for fiscal year 2027

In the subject report, the Committee stated, "The overall scope of the preliminary research plan for fiscal year 2027, as well as the technical objectives of the constituent projects within each principal research domain, remain aligned with the NRRC's short-, mid-, and long-term strategic goals."

We are gratified to receive this comment.

2. Recommendations for a cross-cutting issue and individual research activities in the Discussion section

With regard to the recommendations on a cross-cutting issue and four individual research activities, we will consider them in the plans for fiscal year 2027 and beyond. Details are as follows.

(1) Cross-Program Integration in NRRC Research Plans

The NRRC research teams will establish an explicit cross-program feedback and gap-closure

process as part of the research planning structure considering the items recommended by TAC to be identified for each cross-cutting issue.

(2) Guidance for Risk-Informed Inservice Inspection

The NRRC and the Japan Society of Mechanical Engineers (JSME) have already identified the technical, regulatory, and standardization challenges specific to Japan, and we plan to address the aforementioned issues at meetings of the JSME.

The NRRC considers it a top priority to verify the effects of applying RI-ISI domestically taking into account the status of inspections in Japan.

To understand the effects of domestic application of RI-ISI, the NRRC plans to conduct a comprehensive evaluation on an actual domestic plant during the first year, based on ASME Code Case N-716. The evaluation will be updated as necessary taking into account the status of domestic standard development.

Based on the evaluation results from an actual domestic plant, if the utilities reach a consensus on the domestic application of RI-ISI, the utilities and the NRRC will consider the need for a phased implementation strategy taking into account the status of the internal-flooding PRA models developed by each utility.

In parallel with the evaluation on an actual domestic plant, the NRRC supports consultations between the utilities and the regulatory authority.

(3) Level 2 PRA Case Studies

The NRRC will re-examine the risk-informed justification for further refinements to the scenario-specific case studies, accounting for experience from international and Japanese Level 2 PRAs. In FY2027, the validity of the most important contributors and realistic boundary conditions addressed to date will be described more clearly by incorporating risk information, and the research results from the current phase of FY2025–2027 will be compiled. For the next phase starting from FY2028, NRRC will examine the assessment conditions based on clear evidence derived from the utilization of risk information in consultation with the utilities.

(4) Methods and Guidance for Integrated Risk Assessment

NRRC seeks to enable the early launch of multi-hazard PRA research—PRA that

comprehensively covers hazards contributing to risk—so that it can proceed in parallel with the integrated risk assessment research. As part of the multi-hazard PRA, NRRC will develop a method necessary for integrated risk assessment.

(5) Seismic PRA and Seismic PRA Project Using a Model Plant

With respect to Seismic PRA research and the Seismic PRA model plant research, we basically concur with the TAC's suggestion that NRRC should move on to Level 1.5 PRA as the next practical stage for RIDM application. At the same time, Japanese utilities, especially those that are currently undergoing the restarting reviews and will conduct Seismic PRA in the framework of SAR in the future, strongly desire that NRRC provide technical support for Level 1 Seismic PRA. Therefore, NRRC believes it is necessary to continue research and development on Level 1 Seismic PRA while also expanding into Level 1.5 Seismic PRA.

Sincerely,

A handwritten signature in blue ink, appearing to read "George Apostolakis", with a stylized, flowing script.

George Apostolakis