# 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

July 11, 2024

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

Subject: TAC Report titled "PRELIMINARY NRRC RESEARCH PLAN FOR FISCAL YEAR 2025" dated June 6, 2024

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 2025

In the subject report, the Committee stated, "The overall scope of research plan for fiscal year 2025 and the technical objectives of the individual projects within each major research area remain consistent with the NRRC short-, intermediate-, and long-term goals." We are gratified to receive this comment.

#### 2. Recommendations for individual research activities in the Discussion section

With regard to the four recommendations on individual research activities, we will consider them in the plans for fiscal year 2025 and beyond. Details are as follows.

#### (1) Use of Knowledge from Pilot Plant PRA Peer Reviews

The NRRC research teams accept TAC's comment and when the needs for specific research activities are identified from the pilot plant PRA peer review, we will reflect them on the consideration of the priorities and the focus of the research activities.

#### (2) Human Reliability Data Collection

The HRA research team agrees that data collection methods should be clearly understood by the training personnel at each plant. To this end, the NRRC presented a document of the method for collecting and classifying human reliability data in training situations to utilities in March 2024. We will ensure that the process is understood by utilities, and that the methods of data collection and categorization conform to the comprehensive methods of the NRRC document in the activities of the NRRC's Level 1 PRA Sub Working Group. However, it is not the role of the NRRC to "audit".

## (3) Seismic Fragility Correlation Methodology

The research teams will explore the development of consistent methods. For that purpose, each research team utilizes its unique strengths to advance its research, and the research teams regularly exchange information to harmonize each other's research.

### (4) Risk from Volcanic Ash-Fall

To study duration of volcanic eruptions, we start to survey academic papers that have compiled global data on volcanic eruption episodes. Plant response (both the design features and procedures) to volcanic ash-fall events will be considered upon construction of volcano PRA model.

Sincerely,

Ca Austa

George Apostolakis