



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

June 26, 2024

MEMORANDUM TO: Michael Franovich, Director  
Division of Risk Assessment  
Office of Nuclear Reactor Regulation

Mohamed Shams, Director  
Division of Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities (DANU)  
Office of Nuclear Reactor Regulation

FROM: Christian Araguas, Director *Christian Araguas* Signed by Araguas, Christian  
Division of Risk Analysis on 06/26/24  
Office of Nuclear Regulatory Research

SUBJECT: RESEARCH INFORMATION LETTER (RIL 2024-011) "USE OF  
EXPERT ELICITATION GUIDANCE TO INFORM A SMALL-SCALE  
KNOWLEDGE JUDGMENT APPLICATION"

Enclosed for your information and use is the Research Information Letter, "Use of Expert Elicitation Guidance to Inform a Small-Scale Knowledge Judgment Application." This report was developed by the staff in the Office of Nuclear Regulatory Research and researchers in Pacific Northwest National Laboratory to support NRC's regulatory activities. It documents the process and lessons learned when applying NUREG-2255, *Guidance for Conducting Expert Elicitation in Risk-Informed Decision-making*, to a small-scale expert knowledge elicitation effort. This elicitation evaluated the technical basis for the NRC's human reliability method, Integrated Human Event Analysis System for Event and Condition Assessment (IDHEAS-ECA) and generated insights on ways to determine the probability that the time required for operators to perform a task exceeded the time available before undesired consequences occur.

This report demonstrates a structured process to gather information from experts. It can help NRC staff with deciding, planning, designing, and conducting knowledge elicitation efforts, such as topic evaluations and undertaking the Phenomena Identification and Ranking Table process. This report also intends to serve as a working example or quick guidance for the staff to plan and conduct small-scale expert elicitation following the principles in NUREG-2255 guidance.

CONTACT: Jing Xing, RES/DRA/HFRB  
(301)415-2410

The staff intends to move forward with posting this document on the NRC's RIL public website 14 days after the date of this memo.

Please notify the responsible staff contact if you have any questions concerning the impending publication of this report.

Enclosure:

1. As Stated

Research Information Letter (RIL 2024-011) "Use of Expert Elicitation Guidance to Inform a Small-Scale Knowledge Judgment Application" DATE June 26, 2024

DISTRIBUTION:

- MKichline, NRR/DRA/APOB
- SWeerakkody, NRR/DRA
- AZoulis, NRR/DRA/APOB
- EO'Donnell, RES/DE/RGGIB
- GOberson, NRR/DANU
- SLynch, NRR/DANU/UNPL
- HPhan, NRR/DANU/UART
- MStutzke, NRR/DANU
- BGreen, NRR/DRO/IOLB/HFT
- Rlyengar, RES/DE/CIB
- JXing, RES/DRA/HFRB
- YChang, RES/DRA/HFRB
- KCoyne, RES/DRA
- SPeters, RES/DRA/HFRB
- CAraguas, RES/DRA
- MFranovich, NRR/DRA
- RFurstenau, RES
- AVeil, NRR

**ADAMS Accession No.: ML24166A227; Memo ML24166A232**

OFFICE	RES/DRA/HFRB	RES/DRA/HFRB	RES/DRA	
NAME	JXing	JXSPeters	SPCAraguas	CA
DATE	Jun 14, 2024	Jun 17, 2024	Jun 26, 2024	

**OFFICIAL RECORD COPY**