



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

May 9, 2023

MEMORANDUM TO: Gerond A. George, Chief
Licensing Projects Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

FROM: Ekaterina Lenning, Project Manager */RA/*
Licensing Projects Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF APRIL 12, 2023, MEETING WITH NUCLEAR
ENERGY INSTITUTE REGULATORY ISSUES TASK FORCE
(EPID L-2019-TOP-0044)

On April 12, 2023, a public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives of the Nuclear Energy Institute (NEI) Regulatory Issues Task Force (RITF). The meeting was held in a hybrid format (i.e., attendance in-person, virtual, and teleconference) and all in-person attendees followed the guidance for visitors to NRC facilities on NRC-sponsored events. The purpose of the meeting was to discuss regulatory issues associated with licensing and oversight. The meeting notice is available in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML23097A103. The NRC presentation slides are available in ADAMS under Accession No. ML23097A015. The NEI presentation slides are available in ADAMS under Accession Nos. ML23100A105 and ML23100A088, respectively. A list of attendees is enclosed to this memorandum.

The NRC staff began the public meeting with an introduction and explanation of logistical information. Mike King, Deputy Director of the Office of Nuclear Reactor Regulation for Reactor Safety Programs and Mission Support, NRC, and Brett Titus, Director, Licensing, NEI, provided opening and closing remarks. The topics discussed during the meeting are summarized below. At the end of the presentation, the public had an opportunity to ask questions of the NRC staff. No regulatory decisions were made during this meeting.

Potential license amendment request process improvements and streamlining discussion

The NEI representatives opened the discussion with a presentation on the NEI and industry perspective on potential license amendment request (LAR) process improvements and streamlining (ADAMS Accession No. ML23100A105). The NEI representatives stated that the NRC metrics are met, and that industry-requested completion dates are mostly met. The NEI representatives indicated that the majority of the LARs are processed within 12 months and almost all of the reviews (approximately 96%) do not exceed resource estimates.

The NEI representatives stated that a strategic review of Technical Specifications (TSs) and TS-related processes identified improvements and streamlining that could potentially reduce the NRC and licensee resources for the LAR reviews. The NEI representatives mentioned that NEI is participating in the ongoing industry-wide effort with Core Team members representing the Boiling Water Reactor Owners' Group (BWROG) and the Pressurized Water Reactor Owners Group (PWROG). The NEI representatives stated that Core Team has reviewed the data and procedures for trends and opportunities to be discussed with the NRC in the future.

The NEI provided its perspective and feedback by outlining the observations and associated opportunities regarding the LAR reviews.

Observation #1: The NEI representatives noted that it appears that selected milestones drive LAR issuance. In addition, the NEI representatives mentioned that generic 12-month template for the project milestones is applied to the reviews with various time/effort expenditures (independent of the scope/resource estimates). For example, LARs with 100 hours effort and LARs with 1000 hours effort follow the same general timetable. The industry mentioned that licensees often request a 12-month standard review regardless of the scope.

The NEI representatives outlined the opportunity #1 (resource-driven schedule) for the observation #1 that would allow to develop a graded schedule and milestone templates based on the estimated review hours. The NEI representatives indicated that such an approach would: 1) reduce start/stop "refamiliarization" inefficiencies; 2) allow earlier implementation of the changes, and 3) reduce LAR inventory.

Observation #2: The NEI representatives noted that estimates are very conservative. The NEI representatives explained that their data review identified several examples of the actual hours being less than 50 percent of the estimates (minimum was approximately 13 percent). The NEI representatives further explained that the unintended consequences of overly conservative estimates lead to unnecessary allocation of additional resources (negating the pursuit of other work) and inaccurate tracking of the progress completion.

The NEI representatives outlined the opportunity #2 for the observation #2 that calls for more realism in estimates by proposing to use the data-driven tracking and feedback to monitor and refine future estimates and establishing accuracy goal for estimates/actuals (not just exceedances) and highlighted potential benefits including potential for additional plant improvements, improved tracking of progress to project completion, and synergy with the opportunity #1 (resource-driven schedules).

Observation #3 on project manager (PM) contributions: The NEI representatives noted that the NRC PM is often the single largest contributor to the LARs review hours on LARs and suggested that their essential role should be examined for cross-cutting process and technology improvements applicable to all LAR reviews.

The NEI representatives outlined the opportunity #3 for the observation #3 that could potentially reduce the burden on the PMs by incorporating process improvements in the areas of the standard LAR format and maximizing the use of the streamlined regulatory processes (i.e., LIC-206), and optimizing tools and technology through the electronic submittal enhancements and further leverage internal file sharing.

The NEI representatives also presented the following ideas:

- TS implementation flexibility:
 - *Relocating the implementation period to the cover letter which could potentially alleviate additional administrative amendments.*
 - All LARs to include an implementation period for practicality purposes (not compliance).
 - Implementation period is currently part of the amendment – thus, changes to it require another (usually exigent) amendment.
 - Licensees could inform the NRC of the implementation date changes via letter.
 - The NEI data review identified at least 10 examples in the last 5 years.

- Permanent Audit File Exchange Site:
 - *Establishing a permanent exchange area for each licensee could facilitate streamlined information sharing.*
 - The NRC and the industry have seen benefits from using the audit process to review files and calculations.
 - Currently, an exchange area is established for specific LARs on a case-by-case basis.

- Interactive RAI Process :
 - *Expanding the interactive Request for Additional Information (RAI) process to complex LARs could streamline reviews.*
 - This process has been successfully used for specific LAR reviews (e.g., Improved TS Conversions).
 - Workflow processes incorporated to ensure appropriate NRC and licensee internal review of questions and responses.
 - Maintains transparency to the public.

The NEI representatives proposed to have a dedicated public meeting, workshop to “table-top” the LAR process and identify additional opportunities, and a follow-up during next RITF public meeting.

The NRC staff stated during the discussion that NRC welcomes feedback, and that NRC will discuss the plans for a separate public meeting to continue discussions on this topic. The NRC also stated that the reviews are not linear, and each review schedule and effort are assessed based on the scope of the request and resources. The NRC also mentioned that the staff conducted many audits that were tailored to each review. The NRC representatives again emphasized the importance of early engagements and pre-application activities for the future submittals that support efficiency and effectiveness of the applications and reviews and assist in the resource-planning.

Discussion on expectations for the pre-application meetings

The NRC representatives opened the discussion with the following key messages on the pre-application meetings:

- Pre-submittal interactions are beneficial to the NRC staff in understanding future submittals and for planning purposes.
- Timing of pre-submittal meetings is critical for applicants to receive and incorporate the NRC staff's feedback.

- Successful acceptance of licensee/vendor submittals may be impacted by addressing NRC staff’s feedback from pre-submittal interactions.
- Early transmittal of information for pre-submittal meetings supports effective meetings by allowing the NRC PMs to coordinate with the staff responsible for a specific area.
- The NRC is responsible for performing Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 determinations of the pre-submittal information and in determining what portion(s) can be open to the public and the type (e.g., Observation, Information, Comment-Gathering).

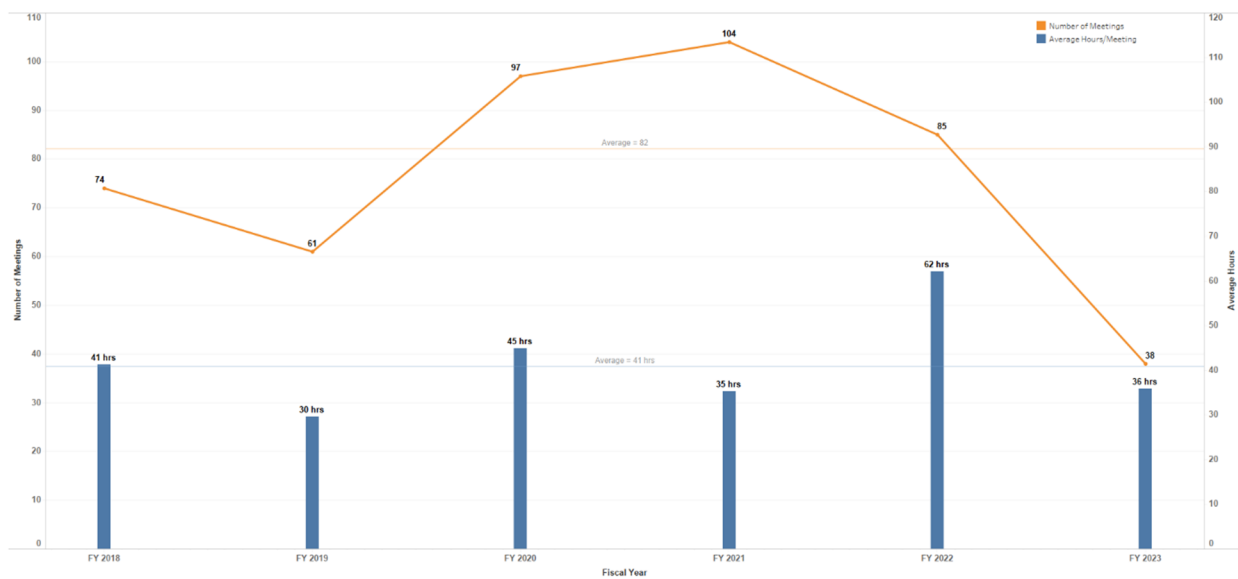
The NRC staff stated that for LARs’ submittals early and frequent communications avoid unnecessary delays in the processing of license amendment applications and pre-application review meetings for future licensing actions are beneficial for complicated or first-of-a-kind applications.

The NRC staff also provided a brief overview of the topical reports (TRs) pre-submittal meetings described in LIC-500, Revision 9, “Topical Report Process” stating that while they are not required, the NRC encourages the TR sponsor to initiate early engagement to help facilitate discussions on planned submittal, the NRC staff’s feedback, and expected submittal date, schedule, and review pathway.

The NRC staff mentioned that for a productive pre-submittal meeting, the TR sponsor should provide adequate technical detail concerning the approach, methods, and key assumptions, and identify anticipated review challenges, significant changes from the existing state of practice, and information which requires additional attention during the review.

The TRs sponsors are encouraged to provide to the NRC any supporting documentation and presentation materials at least 15 working days in advance of the scheduled meeting.

The NRC staff presented a graphical description of the pre-submittal meeting trends:



The NRC staff stated that around 10-15 percent of reviews involved a pre-submittal meeting while pointing out that not all utilities/facilities request pre-submittal meetings to the same extent, outlining the differences provided below:

- Meeting requests for some facilities are 2-5 times higher than others.
- Highest average = 15/year
- Lowest average = < 1/year

The NRC staff also pointed out that it is difficult to correlate the impact for resources and schedule for the NRC's review because:

- 1) multiple factors can influence resources and schedule required to complete the review,
- 2) unique, first-of kind and high complexity requests are not comparable to routine requests,
- 3) primary benefit is ensuring a complete application that can be accepted for review, and
- 4) improved data will increase ability to assess impacts on licensing action reviews.

The NEI and industry representatives stated that pre-application meetings are generally beneficial, especially if the participation of the relevant experts on the NRC and applicant side is ensured. The NEI representatives mentioned that the appendix to the NEI guidance that the NEI is currently developing will contain the NEI checklist for pre-submittal meetings.

The NRC staff indicated that the NRC welcomes feedback and stated that a separate meeting would be beneficial to continue discussions on this topic. The NEI representatives stated that the NEI and industry would support such meeting.

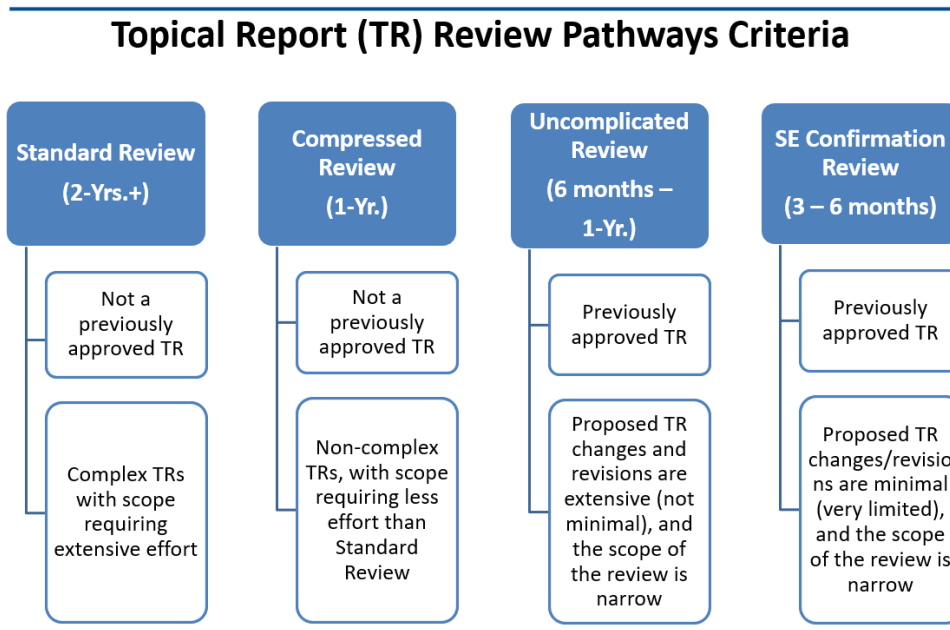
Update on risk-informed process for evaluations and risk assessment process for review of topical reports

The NRC staff presented information on an update on its efforts associated with the risk-informed process for evaluations (RIPE) and its review of the PWROG's risk assessment process for review of TRs (RAPTR). The NRC staff provided a high-level summary of the initial observations and recommendations to improve process implementation that the staff identified from the first review under RIPE. The NRC staff's recommendations and best practices that were addressed during the meeting included that licensees consider (1) requesting a pre-submittal meeting in preparation for a RIPE submittal and (2) making the Integrated Decision-making Panel (IDP) documents available for the staff's review via a secure portal. Further, the NRC staff discussed the plans to update the RIPE guidance to provide additional details to licensees as to what documentation should be submitted as part of a RIPE submittal, including guidance for assessing performance monitoring strategies as a part of a RIPE submittal.

The NRC staff stated that it will implement initial observations and best practices into its guidance documents, because of the NRC staff's observations gleaned from the review of first RIPE submittal. The NRC staff conveyed its plans to update NRR Temporary Staff Guidance (TSG) TSG-DORL-2021-01, "Risk-Informed Process for Evaluations," Revision 2 (ADAMS Accession No. ML22088A136), and "Updates to the Guidelines for Characterizing the Safety Impact of Issues," Revision 2 (ADAMS Accession No. ML22088A135). The NRC staff conveyed that the plan is to issue both updated documents in summer 2023. The NRC staff stated that none of these recommendations/best practices would result in a significant change to the process. Instead, the NRC staff conveyed that these recommendations/best practices would facilitate more efficient and streamlined reviews.

On February 16, 2023, the PWROG submitted via letter PWROG-22010-NP, “Risk Assessment Process for Review of Topical Reports (RAPTR)” (ADAMS Accession Nos. ML23047A200 and ML23047A202). The purpose of the PWROG's submittal is to provide potential guidance to generically determine the safety significance of future TRs and to assign appropriate resources commensurate with the safety significance. The NRC staff conveyed that a fee waiver was submitted and is currently under review by the Office of the Chief Financial Officer (OCFO).

The NRC staff also provided a brief overview of the TR review pathways criteria, as described in LIC-500, Revision 9, and as depicted below.



The NRC staff conveyed that it has established a working group to determine the viability of RAPTR and is considering the potential to leverage and/or enhance LIC-500, Revision 9, with risk insights. The NRC staff also conveyed that the working group's recommendations, with the alignment from management, will determine the path forward, including any future interactions with the public and the PWROG.

In conclusion of the presentation, the NRC staff mentioned several potential benefits of RIPE that include focusing the NRC's and licensees' resources on the most safety significant issues, addressing low safety significance compliance issues in an efficient and predictable manner, consistent with the NRC's Principles of Good Regulation, leveraging existing regulations and risk insights, and incentivizing the further development and use of probabilistic risk assessment (PRA) models and applications.

The NEI and industry representatives indicated that the first RIPE review was very successful and conveyed that they would like to see more reviews completed under RIPE.

The NEI representatives asked the NRC staff to share any insights of how the industry could support RIPE. The NRC staff emphasized the importance of open discussions, early engagements, and pre-application activities for the future submittals, which would support NRC's resource planning and more efficient and streamlined reviews.

What is next for risk-informed licensing discussion

The NRC staff opened the discussion stating that the NRC is evaluating risk initiatives and non-quantitative risk. The NEI representatives continued the discussion with a presentation which is available in ADAMS under Accession No. ML23100A088. The NEI representatives started the presentation with briefly going over the risk informed LAR initiatives, such as: ongoing risk-informed LAR reviews, TSTF-596, 50.69 passive categorization, and 50.69 defense in depth. The NEI representatives also touched upon the continued integration of Be riskSMART philosophy into all aspects of regulatory decision making, mentioning a roll out of PRA configuration control inspections, RIPE, RAPTR, very low significance issue resolution, and common understanding of the suitable defense in depth and safety margins in the area of digital Instrumentation and Control. In addition, the NEI representatives provided their perspective on the risk insights for the aging management and technical developments such as Human Reliability Analysis (HRA) and Diverse and Flexible Coping Strategies (FLEX) data. In conclusion, the NEI representatives provided their perspective on the future risk-informed applications: ultimate heat sink and risk-informed large break loss-of-coolant-accident. The NEI representatives stated that risk-informed LAR initiatives, continued integration of Be riskSMART philosophy into all aspects of regulatory decision making, and risk insights for the aging management are the industry's near-term priority focus items. The NEI representatives indicated that they would like to have more discussions with the NRC on the introduction of risk into the aging management area.

The NRC staff and NEI representatives discussed the importance of aligning the priorities to focus resources in the areas of most interest. The NEI representatives stated that such dialogue should continue.

Update on EMBARK activities

The NRC staff started the presentation on EMBARK activities with outlining the role of EMBARK, which is the Agency's catalyst for innovation activities that consists of two departments: data exploration and process improvement.

It is a home to the Mission Analytics Portal (MAP) that has over 60 dashboards with more than 200 individual views for 11 different NRC offices including end of cycle dashboard, technical support branch dashboard, and workload planning dashboard.

It is also a home to the MAP External (MAP-X) that was created to empower stakeholders with a secure, flexible, and personalized self-service gateway to retrieve, submit, and interact with regulatory related information and assessment tools through a standard web browser.

The NRC staff briefly described two active MAP-X Modules:

- 1) Web-Based Relief Requests (WRR) for proposed alternative under 10 CFR 50.55a(z) (integrated into MAP-X as a module), and
- 2) Event Notification (Form 361 for power reactors, Form 361A for fuel cycle and materials, Form 361N for non-power reactors).

The NRC staff is currently developing licensee event reports Form 366 (waiting on OMB approval) and general submission (similar to the NRC Electronic Information Exchange System General Form).

The NRC plans to develop fitness for duty, operator licensing, and radioactive shipment notifications modules.

The NRC staff mentioned that there are several potential benefits for the external users of MAP-X that include: individual access from anywhere (not tied to a specific computer/physical location), email record/proof of submission, form field validation and auto-populated fields, ability to view/clone previous submissions, and security of the portal access and submission viewing (users can share sensitive or curated information due to the user credentialing and authentication).

In the conclusion, the NRC staff outlined the process improvement initiatives in 1) Generic Issues Program (enhancements to improve the efficiency and timeliness of the Generic Issues Program), and 2) Initial and Subsequent License Renewal Applications (NRC plans to develop a tool to standardize and streamline how the NRC makes work assignments and tracks data, trends, and milestones).

The NRC staff encouraged the industry to provide feedback.

The NEI representatives stated that such tools that relieve administrative burden are very beneficial for the industry's future licensing submittals.

Discussion on staffing, budgeting, and resources

The NEI representatives started the dialogue with the discussion on predictability of the schedules. The NRC staff stated that the NRC resource-planning is data-driven, and that NRC is continuously assessing the current and historical data via NRC's analytic tools that results in more accurate review estimates. The NRC staff mentioned that there is a downtrend on the submittals, but there is also an uptrend on the higher complexity submittals.

The NRC staff also re-emphasized the importance of applicants' open communication and early engagement with the NRC when planning for future submittals, which is essential to the NRC's resource planning. The NEI representatives stated that early communications with the NRC on future licensing submittals are very beneficial.

Early feedback for 2023 Regulatory Information Conference

The 2023 Regulatory Information Conference (RIC) was held in a hybrid format (in-person with virtual components) on March 14 through March 16, 2023. The NRC staff expressed appreciation for the NEI supporting the RIC with panelists on three technical sessions. The NRC staff stated that the 2023 hybrid RIC had nearly 4,000 registrations from over 55 countries, which remained consistent with registrations from the prior two virtual RICs, even after transitioning to hybrid this year.

The NRC staff welcomed feedback and input from the public, NEI, and other stakeholders to inform next year's topics stating that the NRC encourages feedback from the stakeholders throughout the RIC planning timeline, with the staff's submissions finalized by the end of September 2023.

The input can be provided via [RIC survey](https://ric.nrc.gov/sessionsurveys) (<https://ric.nrc.gov/sessionsurveys>) and contacting organizational counterparts on specific topics, as appropriate.

Please use the [Contact Us](https://www.nrc.gov/public-involve/conference-symposia/ric/contactus-ric.html) (<https://www.nrc.gov/public-involve/conference-symposia/ric/contactus-ric.html>) form on the RIC public website if you have any questions or want to share feedback with the NRC.

The NRC 36th RIC is scheduled for March 12-14, 2024.

No comments or questions were received at the meeting from members of the public.

Please direct any inquiries to Ekaterina Lenning at Ekaterina.Lenning@nrc.gov.

Docket No. 99902028

Enclosure:
List of Attendees

List of Attendees
U.S. Nuclear Regulatory Commission and Nuclear Energy Institute
Regulatory Issues Task Force Public Meeting
April 12, 2023
9:15 am – 12:00 pm

Name	Organization
Mike King	U.S. Nuclear Regulatory Commission (NRC)
Bo Pham	NRC
Gregory Suber	NRC
Jamie Heisserer	NRC
Katie McCurry	NRC
Eric Benner	NRC
Meena Khanna	NRC
Evan Davidson	NRC
Antonios Zoulis	NRC
Bob Pascarelli	NRC
Jennifer Dixon-Herrity	NRC
Undine Shoop	NRC
Hipo Gonzalez	NRC
Timothy Burkhardt	NRC
Tony Nakanishi	NRC
Todd Keene	NRC
Rob Krsek	NRC
Angie Buford	NRC
Doug Broaddus	NRC
Taylor Lamb	NRC
Andrew Lerch	NRC
Michelle Kichline	NRC
Laura Smith	NRC
Michael Markley	NRC
Audrey Klett	NRC
Carol Moyer	NRC
Lundy Pressley	NRC
Zach Turner	NRC
Adrienne Brown	NRC
Luis Betancourt	NRC
Holly Cruz	NRC
Ekaterina Lenning	NRC
Luke Haeg	NRC
Nick Smith	NRC
Ngola Otto	NRC
Ed Miller	NRC
Jeffrey Herrera	NRC
Matthew Leech	NRC
Thomas Hipschman	NRC
Christopher Tyree	NRC
John Hughey	NRC

Name	Organization
Andrew Zach	The Senate Environment and Public Works Committee
Brett Titus	Nuclear Energy Institute (NEI)
Melody Rodriguez	NEI
Tony Brown	NEI
Andrew Mauer	NEI
Victoria Anderson	NEI
Stephen Meyer	Certrec
Jana Bergman	Curtiss-Wright
Marty Murphy	Curtiss-Wright
Sophie Gutner	Dominion Energy
Ryan Treadway	Duke Energy
Christopher Courtenay	Duke Energy
Joshua Duc	Duke Energy
Richard Garcia	Energy Northwest – Columbia Generating Station
Phillip Couture	Entergy
Brian Mann	Excel Services
Richard Montgomery	PSEG Nuclear LLC
Hossein Hamzehee	Strategic Teaming and Resource Sharing Group
R. Keith Brown	Southern Nuclear Company, Inc.
Stuart Rymer	Tennessee Valley Authority (TVA)
Gordon Williams	TVA
Shawna Marie Hughes	TVA
Sarah Scott	Xcel Energy
Daniel Watts	Unknown

SUBJECT: SUMMARY OF APRIL 12, 2023, MEETING WITH NUCLEAR ENERGY
INSTITUTE REGULATORY ISSUES TASK FORCE (EPID L-2019-TOP-0044)
DATED MAY 9, 2023

DISTRIBUTION:

PUBLIC	KMcCurry, NRR
RidsACRS_MailCTR	NFields, NRR
RidsNrrDorI	LSmith, NRR
RidsNrrDorLLpb	AZoulis, NRR
RidsNrrOd	EMiller, NRR
RidsOpaMail	HCruz, NRR
RidsOgcMailCenter	LBetancourt, NRR
MKing, NRR	UShoop, NRR
BPham, NRR	HGonzalez, NRR
JHeisserer, NRR	MMarkley, NRR
GSuber, NRR	DBroaddus, NRR
MFranovich, NRR	GGeorge, NMSS
MKhanna, NRR	ELenning, NRR

EXTERNAL DISTRIBUTION:

Brett Titus, NEI
bat@nei.org

ADAMS Accession Nos:

ML23122A011 (Package)
ML23097A103 (Meeting Notice)
ML23097A015 (NRC Presentation Slides)
ML23100A105 (NEI Presentation Slides)
ML23100A088 (NEI Presentation Slide)
ML23125A030 (Meeting Summary)

OFFICE	NRR/DORL/LLPB/PM	NRR/DORL/LLPB/LA	NRR/DORL/LLPB/BC	NRR/DORL/LLPB/PM
NAME	ELenning	DHarrison	GGeorge	ELenning
DATE	5/05/2023	5/08/2023	5/08/2023	5/09/2023

OFFICIAL RECORD COPY