



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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March 31, 2023

MEMORANDUM TO: Michael F. King, Deputy Director for Reactor Safety
Programs and Mission Support
Office of Nuclear Reactor Regulation

FROM: Jamie M. Heisserer, Deputy Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

SUBJECT: FINAL NRR COVID-19 COORDINATION TEAM LESSONS
LEARNED REPORT

The Office of Nuclear Reactor Regulation (NRR) Coronavirus Disease 2019 (COVID-19) Coordination Team (NCCT) has prepared the enclosed final Lessons Learned Report related to operating reactor licensing activities during the COVID-19 public health emergency response. The initial lessons learned report was issued on October 14, 2021, and included a set of recommendations for consideration; this final report provides the status of, and closes out, those recommendations. The enclosed report will be made available to the public via the NRC Agencywide Documents Access and Management System and will also be posted on the agency's COVID-19 Regulatory Activities for Nuclear Reactors public website.

Enclosure:
Final NRR COVID-19 Coordination Team
Lessons Learned Report

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FINAL NRR COVID-19 COORDINATION TEAM
LESSONS LEARNED REPORT

DATED: MARCH 31, 2023

FINAL NRR COVID-19 COORDINATION TEAM

LESSONS LEARNED REPORT

1.0 INTRODUCTION

On January 31, 2020, the U.S. Department of Health and Human Services declared a public health emergency (PHE) for the United States to aid the nation's healthcare community in responding to the Coronavirus Disease 2019 (COVID-19). On March 11, 2020, the COVID-19 outbreak was characterized as a pandemic by the World Health Organization. This was an unprecedented time for our country, the U.S. Nuclear Regulatory Commission (NRC), and its regulated entities. The NRC responded and maintained its commitment to ensuring public health and safety of employees, plant workers, and local communities – resulting in continued focus on safety while providing temporary flexibilities to address the challenges brought on by the pandemic.

In response to the COVID-19 PHE, on March 17, 2020, the NRC Office of Nuclear Reactor Regulation (NRR) established the NRR COVID-19 Coordination Team (NCCT) to quickly, efficiently, and effectively address the evolving conditions and challenges posed by the PHE. For example, NRR saw a substantial increase in the volume of COVID-19 related licensing actions requested by operating reactor licensees in a short period of time, challenging NRR's operating reactor licensing program to evaluate the efficacy of its existing business practices. In response, NRR assessed and implemented process efficiencies that have the potential for further implementation to streamline operating reactor licensing. The NCCT staff has identified new ideas, lessons learned, and best practices that can be utilized as the agency moves forward to becoming a modern, risk-informed, effective, and efficient regulator.

On October 14, 2021, the NRR Division of Operating Reactor Licensing issued an initial report (Agencywide Documents Access and Management System Accession No. ML21252A070) summarizing the actions that NRR took to address the challenges to the operating reactor licensing program posed by the COVID-19 PHE, the lessons learned, and recommendations for further consideration. This final lessons learned report provides the status of those recommendations.

For lessons learned in the operating reactor oversight area, please see the report, "Initial Report on Challenges, Lessons Learned and Best Practices from the 2020 COVID-19 Public Health Emergency," dated January 2021 (ML20308A389), and the report, "Follow-on Review of the Lessons Learned, Best Practices, and Challenges During the COVID-19 Public Health Emergency," dated September 21, 2022 (ML22224A124).

2.0 BACKGROUND

Establishment of the NCCT demonstrated the agency's ability to quickly assemble an integrated team and to pivot to prioritize its response to address the surge in COVID-19 licensing activities effectively. Additional details of the NCCT can be found in Section 4.1 of this report.

The NCCT identified regulatory requirements that could be challenging for licensees to meet under the PHE and where temporary flexibilities, such as exemptions, could be utilized without compromising the ability of licensees to maintain the safe and secure operation of NRC-licensed

facilities. The NRC staff communicated the processes available to licensees for requesting these flexibilities in a transparent way through public meetings, teleconferences, and letters. In addition, these processes and the approved flexibilities were posted and updated on the NRC public website (<https://www.nrc.gov/about-nrc/covid-19/>). On March 20, 2020, the first public meeting hosted by the NCCT was held to discuss COVID-19 regulatory impacts with industry stakeholders (meeting summary available at ML20093F120). In total, the NCCT hosted ten public meetings to discuss various regulatory impacts due to the COVID-19 PHE. NRR continues to communicate regularly with operating reactor facility licensees to discuss current activities and future plans.

In addition, on March 28, 2020, the NRC issued a letter to industry stakeholders describing the criteria and conditions under which it would expedite the review of licensee requests for exemption or relief from certain regulatory requirements (ML20087P237), supplemented by letter dated April 8, 2020 (ML20098B333). Details of these letters, and others, can be found in Section 4.2 of this report.

On April 10, 2020, NRC's COVID-19 Regulatory Activities for Nuclear Reactors website was published and made available to the public. On September 15, 2020, a Commission meeting was held to update the Commission on the agency's response to the COVID-19 PHE. Slides and a transcript of that meeting can be found at ML20253A200. Additionally, an archive of the webcast of that meeting can be found on the NRC public website at <https://nrc.rev.vbrick.com/#/videos/a0555d81-c219-4b7a-92e0-74e6a00bc0c1>.

On November 10, 2020, the NRC issued a letter to industry stakeholders (ML20261H515) to provide guidance on the continued use of the NRC's expedited review processes for COVID-19-related requests in seven topical areas beyond December 31, 2020. Enclosures to that letter addressed informational needs to facilitate licensees' continued use of the expedited review processes, such as providing justifications for the hardships that have resulted from the COVID-19 PHE and information related to the potential cumulative effects of COVID-19-related exemptions.

To support the NRC's review of the expected influx of COVID-19-related requests from its operating reactor licensees, the Division of Operating Reactor Licensing (DORL) formed the COVID-19 Tiger Team. The DORL COVID-19 Tiger Team developed the guidance letters that were issued to industry stakeholders, temporary staff guidance for the review of COVID-19-related exemption requests, and example approval letters.

3.0 INITIAL LESSONS LEARNED SCOPE AND METHODOLOGY

To support the development of the October 14, 2021, initial lessons learned report, the NCCT met with cognizant staff to discuss the NRR COVID-19 PHE response to develop lessons learned. Feedback from these discussions identified best practices that could be retained and disseminated in a manner that would maximize their benefits and usefulness to operating reactor licensing processes and procedures.

The lessons learned contained in the initial report highlighted actions that contributed to the effectiveness of program implementation and enhancements for future activities, consistent with the NRC's Principles of Good Regulation (Independence, Openness, Efficiency, Clarity, and Reliability). The initial report grouped the lessons learned into the areas of:

- Communications and Information Sharing,

- Development of Infrastructure to Support Review of Submittals Related to COVID-19, and
- Processing COVID-19-Related Licensee Requests.

Specific lessons learned, best practices, and recommendations ranged from improvements to existing processes to the development and use of first-of-its-kind concepts such as web-based exemption submittals. The status of implementing the recommendations is summarized below in Section 4.

4.0 LESSONS LEARNED, BEST PRACTICES, AND RECOMMENDATIONS

4.1 Communications and Information Sharing

Given the uncertainty and rapid evolution of the conditions associated with the COVID-19 PHE, NRR was faced with the challenge of understanding impacts to nuclear power reactor licensees and non-power (research and test) reactor licensees and quickly developing and disseminating information in a manner that would be easily accessible to these licensees, as well as members of the public. The volume of requests and inquiries was significantly higher than normal, requiring NRR to re-evaluate traditional methods of communication.

Recommendations from the October 14, 2021, Report:

- R1. Consider modifying the current licensing workload management tool (Reactor Program System (RPS)) to create module(s) that can be used to track licensing actions during emergent or uncommon situations such as the COVID-19 PHE instead of creating SharePoint (or similar) lists on an ad hoc basis.
- R2. Consider establishing a standard template (e.g., list of affected offices/business lines/licensees, dashboards) and process/procedure for launch of a public website to share publicly available information in the event of a future uncommon situation such as the COVID-19 PHE. Having these protocols already in place will allow for a faster communication response for both internal and external stakeholders.

Status of Recommendations:

- R1. Recommendation has been submitted to the RPS Configuration Control Board for inclusion in a future update to RPS. It should be noted that there is a separate naming convention change being considered by the Board as well that may accomplish the same effect. To accomplish this during the PHE, the NRC staff added a unique text string to the EPID titles (i.e., "[COVID-19]"). Although either change (this recommendation or the naming convention change) will implement a more robust tracking ability, the NRC staff can continue to use unique text addition to EPID titles to facilitate tracking until available. With respect to the NCCT Lessons Learned, this recommendation is considered **CLOSED**.
- R2. The public websites that were developed for making guidance documents available and tracking submissions in topical areas will continue to be available as templates for future use. Interactions with OCIO to develop websites for future responses should be conducted in accordance with service agreements and protocols in effect at that time. A link to the pages created has been placed in the COVID-19 licensing lessons learned

Nuclepedia page. With respect to the NCCT Lessons Learned, this recommendation is considered **CLOSED**.

4.2 Development of Infrastructure to Support Review of Submittals Related to COVID-19

Based on industry and public engagement, the NRC staff identified regulatory requirements that could pose challenges during the COVID-19 PHE, and the areas where the staff believed that temporary flexibilities, such as exemptions, would not compromise the ability of licensees to maintain the safe and secure operation of NRC-licensed operating reactor facilities. The NRC staff communicated the processes available to licensees for requesting these flexibilities in a transparent way through public meetings, teleconferences, and letters.

Recommendations from the October 14, 2021, Report:

- R3. Consider a similar approach in the future for use of letters to industry stakeholders/licensees to provide criteria describing the conditions under which the NRC would consider and expedite licensee requests for relief or exemption from certain regulatory requirements due to uncommon situations such as the COVID-19 PHE.
- R4. Consider continued use of the Tiger Team structure established during the COVID-19 PHE for future events where a large volume of requests for relief or exemptions may be needed due to uncommon situations such as the COVID-19 PHE.
- R5. Consider continued practice of developing temporary staff guidance documents for uncommon situations, such as the COVID-19 PHE, to provide clarity in expectations to support efficient reviews.
- R6. Review best practices from the temporary staff guidance documents that may be appropriate and beneficial for permanent adoption and incorporate into future revisions of LIC-103 (ML19155A121).

Status of Recommendations:

- R3. The letters that described criteria for expedited approach reviews are available to be used as examples and/or templates for future instances where their use may be appropriate. A link to an example letter (the last letter that provided continuing guidance for all topical areas) has been placed in the COVID-19 licensing lessons learned Nuclepedia page. With respect to the NCCT Lessons Learned, this recommendation is considered **CLOSED**.
- R4. The concept of using a Tiger Team structure to address uncommon shorter-term review activities continues to be a tool available to the staff when appropriate and has already been used in other areas since the development of the recommendation. With respect to the NCCT Lessons Learned, this recommendation is considered **CLOSED**.
- R5. Using temporary staff guidance to establish interim review procedures for shorter-term, high-volume, review activities continues to be a tool available to the staff. Links to the guidance documents have been placed in the COVID-19 licensing lessons learned Nuclepedia page. With respect to the NCCT Lessons Learned, this recommendation is considered **CLOSED**.

- R6. The temporary staff guidance documents (ML20091L276 and ML20101F039) remain in effect for processing licensing requests until the end of the COVID-19 PHE. The documents have been provided to and discussed with the LIC-103 process owner for inclusion during the next periodic update of LIC-103. With respect to the NCCT Lessons Learned, this recommendation is considered **CLOSED**.

4.3 Processing COVID-19-Related Licensee Requests

The routine process used by NRR, outlined in LIC-103, uses a *Federal Register* notice (FRN) to issue each individual exemption to a licensee. Because of the increased number of exemptions issued and the short timeframe needed to issue the exemptions to respond to the COVID-19 PHE conditions at each licensee site, NRR began to use letters to issue the exemptions to the licensees. NRR then published a monthly FRN to summarize the exemptions issued in the previous month (discussed below). For similar COVID-19-related exemptions, sample decision letters were prepared to improve the consistency and efficiency of reviews. Where appropriate and to the extent practicable, the DORL project manager followed a sample letter to issue an exemption.

Recommendations from the October 14, 2021, Report:

- R7. Consider continued use of summary *Federal Register* notices as a standard administrative practice for all licensing actions that require noticing. This will require consultation with the Office of General Counsel (OGC), revision to NRR office instructions, and training for the NRC staff.
- R8. Consider continued use of the exemption letter process (instead of the traditional individual FRN process) as an alternative for issuing exemptions. This will require consultation with OGC, revision to NRR office instructions, and training for the NRC staff.
- R9. Consider use of the verbal granting of exemptions in specific situations. This practice could facilitate timely communication of the NRC's decision; however, out of approximately 200 COVID-19-related exemptions granted, only one required a verbal decision. This change would also require consultation with OGC, revision to NRR office instructions, and training for the NRC staff.
- R10. Consider continued use and expansion of online portals for other licensing requests, not only for COVID-19-related requests.

Status of Recommendations:

- R7. Aside from the COVID-19-related exemptions, the NRC does not regularly issue enough exemptions to warrant publishing a periodic summary *Federal Register* notice for exemptions instead of the current practice of publishing individual exemption notices. In contrast, the NRC does currently publish a monthly *Federal Register* notice to summarize license amendments under consideration and those issued. The volume of license amendment requests processed annually, however, is significantly greater than exemption requests. Therefore, adoption of this recommendation, at this time,

would not be appropriate. With respect to the NCCT Lessons Learned, this recommendation is considered **CLOSED**.

- R8. The recommendation to consider using the exemption letter process has been provided to and discussed with the LIC-103 process owner for inclusion during the next periodic update of LIC-103. It is noted, however, that any use of the exemption letter process would have to be coupled with a summary *Federal Register* notice. With respect to the NCCT Lessons Learned, this recommendation is considered **CLOSED**.
- R9. The consideration of verbal approval of exemptions has been provided to and discussed with the LIC-103 process owner for inclusion during the next periodic update of LIC-103. With the next revision of LIC-103, the NRC staff intends to describe scenarios where such verbal approval can be considered and how those situations would proceed. It would clarify that these instances should be rare and well justified. Additionally, consistent with other processes that allow for verbal approval (e.g., Appendix F to the Enforcement Manual and LIC-102), it would clarify that any verbal approval must be followed by written correspondence that memorializes that a verbal approval occurred and provides the basis for that approval. With respect to the NCCT Lessons Learned, this recommendation is considered **CLOSED**.
- R10. Through its MAP-X initiative, NRR continues to evaluate and expand the use of the online MAP-X portal to allow licensees to submit licensing requests and conduct other business with the NRC. With respect to the NCCT Lessons Learned, this recommendation is considered **CLOSED**.

5.0 CONCLUSION

In response to the COVID-19 PHE, the NRC was able to provide reasonable assurance for safety and security, despite challenging conditions and a surge in licensing workload related to the PHE. In response, NRR implemented or initiated process improvements to support timely reviews and adapted existing practices to streamline certain administrative processes in the future. Some of the recommendations are intended to be invoked in future off-normal situations (e.g., pandemic) but others are provided for improvement to current operating reactor licensing processes as the agency moves forward to becoming a modern, risk-informed, effective, and efficient regulator.

SUBJECT: FINAL NRR COVID-19 COORDINATION TEAM LESSONS LEARNED REPORT
DATED MARCH 31, 2023

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