

April 14, 2017

MEMORANDUM TO: Paul G. Krohn, Deputy Director
Division of Construction Inspection
and Operational Programs
Office of New Reactors

Mark S. Miller, Deputy Director
Division of Reactor Safety
Region II

FROM: Vonna L. Ordaz, Acting Director **/RA/**
Office of New Reactors

Catherine Haney, Regional Administrator **/RA/**
Region II

SUBJECT: CHARTER FOR ENHANCING THE NUCLEAR REGULATORY
COMMISSION COLD OPERATOR LICENSING PROCESS

The purpose of this memorandum is to charter an inter-office task team under your shared leadership to enhance the Nuclear Regulatory Commission's (NRC's) cold operator licensing process ("cold licensing process") for newly licensed plants. This effort is motivated by the many lessons that were learned to date from the cold licensing efforts at the AP1000 projects at Vogtle and V.C. Summer.

Three groups of applicants have taken the requisite written examinations and operating tests to date. These examinations and tests were prepared, administered, and graded in a manner consistent with program guidance. The NRC correspondingly approved exemptions to the Commission's regulations to facilitate the administration of the examinations because design and construction of the AP1000 facilities were not complete. However, as this effort proceeded it became clear that the staff's guidance documents could be improved to enhance the efficiency and effectiveness of the cold licensing process. The objective of this team is to develop recommendations to provide those improvements.

The enclosed charter has been developed to define the objective, scope, staffing, and timeframe for this effort.

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The team should provide its observations, conclusions, and recommendations in the form of a written report, consistent with the guidance provided in the attached charter. The team's recommendations will be considered by the Office of Nuclear Reactor Regulation/Office of New Reactors program offices, in consultation with regional offices as appropriate, for incorporation into operator licensing program documents. While this charter focuses on recommendations to improve the overall efficiency and effectiveness of the cold licensing process, a separate charter (ML17079A362) focuses on defining attributes associated with plant-reference and Commission-approved simulators.

Enclosure:
Charter Improving the NRC Cold
Licensing Process

SUBJECT: CHARTER FOR ENHANCING THE NUCLEAR REGULATORY COMMISSION
COLD OPERATOR LICENSING PROCESS DATE: APRIL 14, 2017

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CHARTER

IMPROVING THE NUCLEAR REGULATORY COMMISSION COLD LICENSING PROCESS

Objective

The objective of this Task Team (the “team”) is to formulate and develop near-and long-term recommendations to enhance the cold licensing process.

Scope

The team should review documents that provide a well-established framework for the operator licensing process. Examples of pertinent documents include (but are not limited to) Title 10 *Code of Federal Regulations* (CFR) Part 50, Part 52, and Part 55; NUREG-1021, “Operator Licensing Examination Standards for Power Reactors,” Revision 10 and Revision 11; and Nuclear Energy Institute 06-13A, “Template for an Industry Training Program Description,” Revision 2, March 2009. These documents should be used as bases for the formulation of recommendations. In addition, the team should review and evaluate previous 10 CFR Part 52-related operator licensing documents, such as Reports on Interaction (ROIs), exemptions, inspection reports, exam materials, multi-office memoranda, audit reports, etc.

In addition to the review of the documents noted above, the team should consult industry representatives experienced with cold licensing and meet with external stakeholders as work progresses to solicit feedback. The team should also engage licensing subject matter experts during development and formulation of recommendations. The team must provide a basis for each of its recommendations. Finally, the team shall ensure that any recommendations developed as a part of this effort do not result in unintended consequences for the operating reactor licensing program.

Tasks

The cold licensing process has yet to be fully implemented for the new reactors under construction. Accordingly, the tasks in part “A” below support the completion of the cold licensing process for these licensees. Though tasks in part “A” directly support near-term activities for cold licensing at Vogtle and V.C. Summer, subsequent recommendations should apply to any newly licensed plant. The tasks in part “B” concern experience and insights gained during the already-completed cold licensing activities at Vogtle and V.C. Summer. These items have been identified as areas for longer-term generic evaluation and resolution to improve the overall efficiency of the cold licensing process.

- A. The following tasks require the development of written interim guidance, including roles and responsibilities, necessary to fully and effectively implement the NRC cold licensing process. The following tasks concern the outstanding cold licensing activities at Vogtle and V.C. Summer following administration of the first AP1000 operating exams up to and including the issuance of operator licenses:

1. Assess existing guidance to ensure that the following aspects of the cold licensing process are sufficiently addressed and that compliance with applicable regulatory requirements is maintained. Make recommendations for enhancing guidance, as appropriate.
 - a. Deferral of license issuance when eligibility requirements have not been met at the time the licensed operator examination is administered.
 - i. As part of this guidance consider appropriate enhancements to the guidance in NUREG-1021, Examination Standard (ES) 501, Section D.3, “NRC Management Review and Licensing Actions,” focusing on the issuance of ‘Pass Letters.’ Address the potential impacts related to 10 CFR 55.51 when exercising ‘Pass Letters,’ and consider the potential influence of the criteria delineated in NUREG-1021, ES-202, Section D.4, “Cold License Eligibility.”

Applicable regulations:

- 10 CFR 55.31, “How to apply”
- 10 CFR 55.33, “Disposition of an initial application”
- 10 CFR 55.51, “Issuance of licenses”

- b. The denial of licenses when exam failures occur and eligibility requirements have not been met at the time the licensed operator examination is administered.
 - i. As part of this guidance, provide recommendations for a regulatory-based path forward for how to properly process license and/or application denials in accordance with 10 CFR 2.103(b)(1) and (2), “Action on applications for ... operator licenses,” when failures of portions of the operating exam occur. This part of the recommendation should also consider application of the requirements in 10 CFR 55.31, 55.33, and 55.51 when applicant exam failures occur and eligibility requirements are not yet met.

Applicable regulations:

- 10 CFR 2.103, “Action on applications for by-product, source, special nuclear material, facility and operator licenses”
- 10 CFR 55.31, “How to apply”
- 10 CFR 55.33, “Disposition of an initial application”
- 10 CFR 55.51, “Issuance of licenses”

- c. How the NRC will determine (via inspections, audits, verifications, etc.), that all requirements necessary to issue an operator license in accordance with 10 CFR 55.51 have been met, including consideration of when the licenses should be formally issued.

Applicable regulations:

- 10 CFR 50.54, “Conditions of Licenses”
- 10 CFR 52.103, “Operation under a combined license”
- 10 CFR 55.51, “Issuance of licenses”
- 10 CFR 55.53, “Conditions of licenses”

- B. The following tasks concern experience and insights gained during completion of specific cold licensing activities at Vogtle and V.C. Summer. These items should be addressed after the completion of the items in part “A” above.

As general guidance and when evaluating these topics, the team should address these topics in a generic form to create regulatory flexibility that can be applied to any newly licensed plant. Additionally, the team should do the following when evaluating all items as appropriate:

- Recommend the best vehicle for providing guidance, for example within the existing NUREG-1021 guidance (e.g., a new series for cold licensing; appendix to existing NUREG-1021 series; etc.), as a stand-alone document, or within other NRC guidance.
- Consider the delineation of differences between the cold licensing process and operating plant NUREG-1021 guidance.
- Evaluate and make recommendations on the incorporation of previous ROIs into guidance document(s).
- Recommend acceptable methods by which to deviate from the defined process and the approving authorities for deviating from prescribed methods.
- Ensure that process recommendations require the consideration of the ability to generate exam material that is not predictable and does not limit the testable material due to incomplete design, unapproved procedures, and unestablished programs.
- Consider the possible impact of plant construction milestones on the following items when developing recommendations:
 - Simulator status
 - Potential that in-plant JPMs may require modification.
 - Use of draft procedures
 - Preliminary schedule for the number and type of licenses (RO, SRO) desired by the licensee
- Make recommendations for the establishment of a clear hierarchy of guidance/procedure requirements for the cold licensing process, including elements that may exist in a licensee’s licensing basis. For example, a hierarchy (high to low) of:
 - 10 CFR Part 50, 52, and Part 55
 - NUREG-1021, “Operator Licensing Examination Standards for Power Reactors,” Revision 11
 - NEI 06-13A, “Template for an Industry Training Program Description,” Revision 2
 - National Academy for Nuclear Training Guidelines

1. Recommend a timeline of milestones for the cold licensing process. Consider the following elements for guidance:
 - a. Develop guidance to enhance the NRC's response to a licensee's request for an operating exam.
 - b. Using operating experience from AP1000 exams already administered, identify known pitfalls and capture them in recommended changes to existing guidance.
2. Consider, and make recommendations regarding the suitability of alternate methods and procedures in developing exam material when delays in construction occur.
3. Assess the definitions for applicant eligibility, training, and experience, including criteria for determining when deferrals are appropriate. Make recommendations for changes or clarifications resulting from this assessment.
4. Assess exam administration experience gained thus far at Vogtle and V.C. Summer for lessons learned. Make recommendations for modifications to current exam administration methods based upon this assessment.
5. Review operator licensing program office processes (e.g., Operator Licensing Manual Chapters, etc.) for applicable revisions that will be necessary as a result of the recommended enhancements to the cold licensing process.

Expected Results and Schedule

By July 28, 2017, the team is to provide to the Director of the Office of New Reactors (NRO), the Director of the Office of Nuclear Reactor Regulations (NRR), and the Regional Administrator for Region II recommendations for actions under part "A" of this charter.

By September 29, 2017, the team is to provide recommendations for actions under part "B" of the charter. These recommendations should include the identification of necessary and appropriate changes to existing guidance documents and/or new guidance documents needed to formalize the process. The report(s) should include a summary of conclusions and a description of each element of the cold licensing process. Recommendations should be grouped based on their importance (high, medium, or low) and linked to a specific topical area, where appropriate. All significant references should be provided, where appropriate.

The NRO/Division of Construction Inspection and Operational Programs (DCIP) Human Performance, Operator Licensing, and ITAAC Branch (HOIB) staff will use the team's report(s) as the basis for making appropriate changes to operator licensing program guidance documents and processes.

The team will conduct their review and development of recommendations through multiple venues including face-to-face meetings, teleconferences, etc. Team meetings are at the discretion of the team leader. The team leader should also provide progress updates to the program offices and RII management on a periodic basis, as well as concerns or issues that may be identified and may need prompt attention by the program offices. Team member work assignments are at the discretion of the team leader.

Task Team

The team should have representation from NRR, NRO and Region II. Team members should preferentially have had prior involvement in the AP1000 NRC exams at Vogtle and V.C. Summer or an understanding of the challenges surrounding the implementation of the cold licensing process. Other NRC staff members may be consulted as needed.

The team will use the carrier access code (CAC) A17006, "New Reactors Operator Licensing," for all time spent on this effort.