

PROCESSING REQUESTS FOR ADMINISTRATIVE REVIEWS AND HEARINGS

A. PURPOSE

The purpose of this Operator Licensing Manual Chapter (OLMC) is to provide additional guidance to the staff on the implementation of the requirements contained in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Section ES-501, "Initial Post Exam Activities," and Section ES-502, "Processing Requests for Administrative Reviews and Hearings After Initial License Denial," concerning the processing of applicant-requested administrative reviews and applicant-demanded hearings.

B. BACKGROUND

NUREG-1021, Section ES-501 describes the process to be followed to document and support a license denial. NUREG-1021, Section ES-502 describes the process to be followed for reconsidering proposed license denials and for applicant demanded hearings. If there is a disagreement between this manual chapter and ES-501 or ES-502, ES-501 and ES-502 will provide the acceptable practice. This manual chapter shall be used in conjunction with NRR Office Instruction LIC-201, "NRR Support to the Hearing Process" to ensure all aspects of the hearing process are documented.

The appeal process typically starts when an applicant transmits a request (within 20 days of the date on the proposed denial letter from the regional office) for an administrative review of the proposed examination failure (or proposed application denial) to the applicable Division Director: the Director, Division of Inspection and Regional Support (DIRS) or Division of Construction Inspection and Operational Programs (DCIP). The applicant may also request a hearing in lieu of an administrative review, which is subject to the same time requirements of 20 days for submitting the request. The applicant is notified in their proposed denial letter regarding which division to contact (DIRS or DCIP) to request an appeal of the proposed denial, and of their right to demand a hearing pursuant to 10 CFR 2.103(b)(2).

C. OVERVIEW OF THE PROCESS (Refer to Section D for Detailed Instructions)

1. Administrative Reviews (also referred to as "informal staff reviews," or "reviews")

Upon receipt of the applicant's request for an administrative review, the NRR Operator Licensing and Training Branch (IOLB) staff or the NRO Human Performance, Operator Licensing and ITAAC Branch (HOIB) staff, as applicable, will take certain administrative actions (e.g., send an acknowledgment letter to the applicant), and coordinate with the affected region to determine who will

perform the review (non-affected region, IOLB and/or HOIB, or a panel). In the event that the request for an administrative review is directed to one operator licensing (OL) program office, and IOLB and HOIB jointly determine that the other OL program office should be the lead program office for the review, the acknowledgement letter to the individual must reference the change in program office. IOLB or HOIB will typically perform these reviews and document the results, taking into account the formal review of the contested items by the region which administered the examination. If the administrative review proposes a reversal of the original licensing decision, then the affected region shall be afforded the opportunity to submit an additional written response from their Regional Administrator. When the administrative review is complete, the results of the review will be approved by the applicable Branch Chief (IOLB or HOIB), and signed out by the applicable Division Director (DIRS or DCIP). In accordance with NUREG-1021, administrative reviews associated with examination failures are generally to be completed within 75 days of receipt of the applicant's request, and administrative reviews of a denied application for other reasons (e.g., eligibility) are generally to be completed within 60 days.

If the examination administrative review overturns the original denial, IOLB or HOIB, as applicable, will contact the affected region to determine if the licensing action should be delayed due to a waiver, a deferral, or based upon the applicant's medical condition. If there is no basis for delay (i.e., waiver or deferral, medical, low passing scores that could be affected if another applicant requests a hearing) IOLB or HOIB, as applicable, will instruct the affected region to issue the applicant a license. If the examination administrative review sustains the original denial, the applicant may demand a hearing, subject to a 20 day time requirement for submitting the hearing request after the date of the latest proposed denial, by sending a letter to the Office of the Secretary (SECY) and the Office of General Counsel (OGC).

If the applicant submitted a claim of bias/prejudice related to the examination administration coincident with the request for an administrative review, and the examination administrative review sustains the original denial, results of the review will only be documented following the completion of an MD 8.17 evaluation to determine if the record supports the complaint. If the complaint is substantiated, the affected region's Regional Administrator, in consultation with NRR and/or NRO, and with concurrence of the facility licensee, may offer the applicant an immediate re-examination. The re-examination team will consist of examiners from other regions who had no involvement with the original exam.

2. Hearings

The applicant demands a hearing by electronically filing documents through the NRC E-filing system within 20 days of any application denial. If the applicant submits a claim of bias/prejudice related to the examination administration coincident with the demand for a hearing, the claim will be processed using MD 8.17 in parallel with the demand for a hearing. Upon receipt of a hearing request, the Atomic Safety and Licensing Board (ASLB) will appoint a presiding officer (administrative law judge) to hear the case, the Office of General Council (OGC) will assign an administrative lawyer to represent the NRC staff, and OGC will notify all applicable Division Directors, including the Director, Division of Inspection and Regional Support (DIRS) or the Director, Division of Construction Inspection and Operational Programs (DCIP). The applicable Division Directors will notify the appropriate lead operator licensing (OL) program office, the NRR Operator Licensing and Training Branch (IOLB) or the NRO Human Performance, Operator Licensing and ITAAC Branch (HOIB), of the demand for a hearing. The presiding officer will review the applicant's demand for a hearing, and will typically direct the NRC staff to submit its position(s) and supporting documentation (i.e., an affidavit and hearing file) in response to the applicant's contentions by a specific deadline or deadlines.

After the affidavit(s) and hearing file(s) have been reviewed by OGC, NRC Regional Management, IOLB, and HOIB, as applicable, these documents are delivered to the presiding officer. The presiding officer may have additional questions for the NRC staff or the applicant, which will typically require drafting additional affidavits. After the presiding officer has considered the facts, he or she will render a decision. If the NRC staff disagrees with the presiding officer, the staff can request that the Commission review the presiding officer's decision. For more details on the operator licensing hearing process, see 10 CFR Part 2, Subparts C, G, L, and/or N, and NRR Office Instruction LIC-201, "NRR Support to the Hearing Process." The results from the MD 8.17 evaluation will be reviewed by OGC and IOLB and/or HOIB, and necessary actions will be implemented by the affected region.

D. RESPONSIBILITIES AND DETAILED PROCESS INSTRUCTIONS - See also ES-502, Section C

1. NRR Operator Licensing Program Office (IOLB) or NRO Human Performance, Operator Licensing and ITAAC Branch (HOIB)

- a. Upon receipt of an applicant's request for an administrative review, IOLB or HOIB, as applicable, will perform the following administrative actions:
- (i) Verify that the OL program office to which the request was sent (IOLB or HOIB) is the appropriate OL program office to carry out the instructions of this OLMC. (NOTE: Throughout this OLMC, "lead program office" will refer to the OL program office designated to carry out the instructions of this OLMC, either IOLB or HOIB.)
 - (ii) Notify the appropriate NRC regional office of the administrative review request, and transmit a complete copy of the applicant's request to that region if it was not already provided by the applicant. Request the affected region to submit their review of the contested items, within 15 working days, via a formal memo from the Director of DRS to the Director of DIRS or DCIP (as applicable) for consideration by the reviewer(s).
 - (iii) Prepare a letter for signature by the Director, DIRS or DCIP, as applicable, notifying the applicant that his or her request has been received and is being reviewed (sample letter provided as Attachment 1). In the event that the request for an administrative review is directed to one operator licensing (OL) program office, and IOLB and HOIB jointly determine that the other OL program office should be the lead program office for the review, the acknowledgement letter to the individual must reference the change in program office.
 - (iv) Take actions to open a CAC number for the administrative review using the facility docket number(s) under "Operating Reactors – Licensing – Operator Licensing" (PA Code 114165 for FY 2016) for existing reactors or under "New Reactors – Licensing – Operator Licensing" (PA Code 174149 in FY 2016) for new reactors.
- b. The lead program office branch chief (or, the Director of DIRS or DCIP, as applicable), in consultation with the affected region and the lead program office staff, will determine whether to: (1) have an independent qualified examiner from one of the non-affected regions perform the review; (2) have IOLB and/or HOIB perform the review; or (3) convene a three-person appeal panel to perform the review. If the applicant's appeal is related to dynamic simulator scenarios, option (3) shall be utilized. Since all administrative review results are subject to final approval by the

lead program office, in order to enhance efficiency, IOLB and/or HOIB will typically perform the review and document the results, taking into account any formal regional review of the contested items. Option 1 might be necessary if IOLB or HOIB does not have an examiner certified on the affected facility, and Option 3 should be preferentially utilized for complex written examination or walkthrough operating test reviews, if possible.

- c. The lead program office shall ensure that the review is completed and documented in accordance with the guidance in Section E. The lead program office will also establish and maintain communications with the affected region in order to obtain the regional review of contested items required by D.1.a, above.
- d. If it is determined that an appeal panel will be used for the review, then the lead program office branch chief, in consultation with all the NRC Regions, will determine the makeup of the panel. Note that an appeal panel shall consist of two vendor-certified examiners (or subject matter experts) from non-affected regions and a designated chairperson from a non-affected region (usually a regional branch chief, or a regional, IOLB, or HOIB senior examiner). The panel shall not include individuals involved with the applicant's licensing examination. Additionally, individuals who have had any involvement in the applicant's prior exams (i.e., examiners who have participated on any of an applicant's exams if that applicant has had multiple retakes, or examiners who participated on an SRO-U's RO exam if an SRO-U is requesting the appeal) are also prohibited from participating as a member of the panel.
- e. Regardless of who performs the review, the lead program office will be familiar with the circumstances of any contested examination failure or application denial and with the contents of any applicant request for an administrative review or demand for a hearing.
- f. Administrative reviews are limited to the contested items only. However, in the unlikely event a new error is identified as a direct result of the contested item review, the uncontested error and its effect, if any, on the applicant's pass/fail result should be determined and documented by the reviewer(s) in a memorandum to the Director, DIRS or DCIP (as applicable) and the Regional Director, DRS. An administrative review is permitted to determine that a contested item, or new error identified directly as a result of a contested item, is a critical task (CT). This can occur whether or not the contested item was previously identified as a CT during the exam administration.

- g. The results of all administrative reviews will be approved by the lead program office and signed out by the Director, DIRS or DCIP, as applicable, taking into account regional review of contested items per D.1.a(ii), above. If a proposed license denial is overturned as a result of an administrative review, the lead program office will afford the affected region the opportunity to submit an additional written response. This additional written response shall be from the Regional Administrator to the Director of NRR or NRO (as applicable). If the reversal of the original licensing decision stands, then the lead program office will contact the affected region to determine if the licensing action should be delayed due to a waiver, a deferral, or based upon the applicant's medical condition. If there is no basis for delay (e.g., waiver, deferral, medical, low passing scores that could be affected if another applicant requests a hearing) the lead program office will instruct the affected region to issue the applicant a license.
- h. Upon completion of the review the lead program office will take actions to close the applicable CAC number.
- i. For hearings, similar responsibilities for the lead program office apply: A new CAC number will be opened under "Operating Reactors – Licensing – Licensing Actions" (PA Code 114149 in FY 2016) for existing reactors or under "New Reactors – Licensing – Licensing Actions" (PA Code 174149 in FY 2016) for new reactors. A copy of the applicant's request will be sent to the affected region, and the new CAC number will be closed upon completion of the hearing process. Additionally, the lead program office will notify staff that all documents or emails they possess that tie to that applicant are frozen, and any documents or emails generated after the demand become part of the hearing file.
- j. Similar to the administrative review process, the lead program office branch chief, in consultation with the lead program office staff and the affected region will determine who will be responsible for conducting the hearing review and preparing any NRC affidavits and/or hearing files. Due to the extensive amount of effort required to draft affidavits and construct hearing files, it is imperative that the lead program office and the affected region quickly evaluate their personnel resources and establish these responsibilities. It is generally expected that the affected region will conduct the review and prepare any affidavits and hearing files. However, if the affected region does not have the necessary personnel resources, the lead program office will assist the affected region in performing the review and preparing the documents, but only for hearings involving contested written exam failures or application denials.

For contested operating test failures, the examiner of record, since he/she directly observed the applicant during the exam, is expected to prepare any hearing documents.

- k. The lead program office will assist OGC in the review of all hearing related documents drafted by the NRC technical staff.

2. Affected and Non-Affected Regions

- a. In consultation with the lead program office, determine who will perform the review (non-affected region, IOLB, HOIB, or a panel). Typically, the lead program office will perform and document administrative reviews. If an appeal panel is to be used, all regions (including the affected one) should examine their personnel resources and determine who would be available to serve as panel members (see D.1.d above for panel membership restrictions).
- b. It is expected that the affected region will be familiar with the circumstances of any contested examination failure or application denial, as well as with the contents of any applicant request for an administrative review or demand for a hearing.
- c. If the lead program office or a panel conducts the review, the affected region will submit their review of the contested items via formal memo from the Director of DRS to the Director of DIRS or DCIP (as applicable) for consideration by the review team. The region will also be responsible for answering questions and providing assistance as requested by the lead program office or the panel. This assistance may include interfacing with the facility licensee point of contact for obtaining technical references, and providing certain examination documents (see Sections E.1.c and E.1.f for a list of documents).
- d. If a non-affected region conducts the review, the region conducting the review shall:
 - (i) Ensure that the review is not performed by any examiners involved with the applicant's original licensing examination. This restriction extends to individuals who have had any involvement in the applicant's prior exams (i.e., examiners who have participated on any of an applicant's exams if that applicant has had multiple retakes, or examiners who participated on an SRO-U's RO exam if an SRO-U is requesting the appeal). This will ensure that the review is conducted in an impartial fashion.

- (ii) Conduct and document the review in accordance with Section E.
 - (iii) Establish and maintain communications with the lead program office during the review, in order to ensure that the review results include lead program office input.
 - (iv) Upon completion, forward its draft results to the lead program office for review, concurrence, and routing to the Director, DIRS or DCIP, as applicable, for approval.
- e. Administrative reviews are limited to the contested items only. However, in the unlikely event a new error is identified as a direct result of the contested item review, the uncontested error and its effect, if any, on the applicant's pass/fail result should be determined and documented by the reviewer(s) in a memorandum to the Director, DIRS or DCIP (as applicable) and the Regional Director, DRS. An administrative review is permitted to determine that a contested item, or new error identified directly as a result of a contested item, is a critical task (CT). This can occur whether or not the contested item was previously identified as a CT during the exam administration.
- f. If a proposed license denial is overturned as a result of an administrative review, the lead program office will afford the affected region the opportunity to submit a formal written response in the form of correspondence from the Regional Administrator to the Director of NRR or NRO, as applicable. If the reversal of the original licensing decision stands, the lead program office will contact the affected region to determine if the licensing action should be delayed due to a waiver, a deferral, or based upon the applicant's medical condition. If there is no basis for delay (e.g., waiver, deferral, medical, low passing scores that could be affected if another applicant requests a hearing) the lead program office will instruct the affected region to proceed with actions to issue the applicant a license.
- g. Following the DIRS or DCIP Director's approval of the administrative review results (regardless of who performed the review), the affected region will review the examination results of the other applicants to determine if any of the licensing decisions are affected (e.g., Applicants who were issued a proposed denial but did not request an administrative review and applicants who were not issued a license because they passed with a grade of 82% or below will need to be regraded; applicants who passed with a grade above 82% do not need to be regraded) and

update the Reactor Program System – Operator Licensing (RPS-OL) as necessary; (2) update the master examination file to reflect any test item deletions or answer key changes; and (3) consider the need to correspond with the facility licensee regarding the quality of the examination (see Section C.2.c of ES-501).

- h. Similar to the administrative review process, for hearings, the Director, DIRS or DCIP, as applicable, in consultation with the lead program office and the affected region will determine who will be responsible for conducting the review and preparing any NRC affidavits and/or hearing files. Due to the extensive amount of effort required to draft affidavits and construct hearing files, it is imperative that the affected region and the lead program office quickly evaluate their personnel resources and establish these responsibilities. It is generally expected that the affected region will conduct the review and prepare any affidavits and hearing files as discussed in D.1.j, above.
- i. The affected region will ensure that all administrative review documents are placed in the applicant's ADAMS operator docket file. Additionally, the Hearing Order (and results order at the conclusion of the hearing) are also placed in the ADAMS operator docket file if a hearing was demanded. (The OGC hearing file is separate from the ADAMS operator docket file and will contain the hearing-specific files.) If the affected region is uncertain as to which documents should be placed in the individual's ADAMS operator docket file, it should contact the lead program office and/or OGC for guidance.

3. Appeal Panel

- a. During an appeal panel review, the panel should conduct and document the review in accordance with the guidance in Section E.
- b. During an appeal panel review, the panel will establish and maintain communications the lead program office in order to ensure that the review results includes lead program office input. Additionally, the appeal panel must ensure they consider formal input from the affected region, as described in D.2.c.
- c. Upon completion, the appeal panel will forward its draft results to the lead program office for review, concurrence, and routing to the Director, DIRS or DCIP, as applicable, for approval.

4. OGC

- a. Upon receipt of a demand for a hearing, OGC assigns an attorney from its staff to represent the NRC in the case, and notifies the lead program office of the request.
- b. During a hearing, the assigned OGC attorney carries out all communications (acknowledgment letters, phone calls, etc.) with the applicant and all communications with the presiding officer. There will be no direct communication between the NRC technical staff or management and the applicant or the presiding officer.
- c. The assigned OGC attorney reviews all NRC drafted hearing documents (affidavits, hearing files) prior to the documents being submitted to the presiding officer or sent to the applicant.

5. Facility Licensee

During an administrative review or hearing, the facility licensee is expected to designate a single point of contact to provide answers and reference materials for detailed technical questions, as necessary. Establishing the facility point of contact will be arranged with input from the affected region. Refer to ES-502 for further details.

E. REVIEW GUIDANCE AND DOCUMENTATION

1. Review Guidance

- a. When an applicant requests that the Director, DIRS or DCIP, as applicable, conduct an administrative review, the NRC is responsible to ensure a timely review is performed. Administrative reviews associated with examination failures are generally to be completed within 75 days of receipt of the applicant's request, and administrative reviews of a denied application for other reasons (e.g., eligibility) are generally to be completed within 60 days.
- b. In all cases, each of the applicant's contentions shall be reviewed and addressed in the results documentation.
- c. For reviews involving written examinations, the following items shall be reviewed:

- (i) a copy of the applicant's request for an administrative review, including all applicant contentions and applicant-supplied reference material;
- (ii) a copy of the contested written exam questions with answer key;
- (iii) any documentation and technical references supporting the bases for the correct answers and why the distractors are incorrect;
- (iv) as required, any other technical references for the contested questions;
- (v) a copy of the applicant's original answer sheet;
- (vi) any documentation of issues raised during the administration of the examination related to the contested written exam questions, e.g., all applicant questions and all of the proctor's statements of clarification and/or responses; and
- (vii) the affected region's formal review of the contested items.

The material should be obtained from the affected region, if available, or from the facility licensee point of contact.

- d. In conducting a review of written exam grading, the reviewer(s) should carefully examine each of the contested questions and associated materials. For each contested question, the following is a list of typical possible outcomes:
- (i) Delete the question, due to a psychometric-related problem (e.g., unclear, not appropriate as a closed referenced test item, not appropriate to the license level, not linked to job requirements);
 - (ii) Delete the question, due to technical problems (e.g., no correct answer or more than two correct answers);
 - (iii) Keep the question, but change the correct answer choice;
 - (iv) Keep the question as is, with no change in grading; or
 - (v) Accept an additional answer choice as correct (note: a question is considered valid with up to two correct answer choices).

See NUREG-1021, ES-401 or ES-401N and Appendix B for more details on psychometrics, and ES-403 on written exam grading.

- e. Upon determining an outcome for each contested question, the reviewer(s) shall re-calculate the applicant's overall examination score and the score on the SRO only portion of the examination, if applicable. For an example recalculation, see the "Summary" Section of Attachment 5. If multiple applicants have asked for a review of the same written examination, the outcome of each contested question for each applicant shall be determined first, and the outcomes for all of the contested questions shall then be applied to each of the applicants' exams.
- f. For reviews involving operating tests, the following items shall be reviewed:
 - (i) a copy of the applicant's request for an administrative review, including all applicant contentions and applicant-supplied reference material;
 - (ii) a copy of the contested test items (JPMs and/or scenarios) with answer keys;
 - (iii) any documentation, procedures, or technical references that provide the basis for the correct operator actions;
 - (iv) as required, any other technical references for the contested test items;
 - (v) a copy of the applicant's original operating test grade report (ES-303-1 and 2 forms), and if the scenario grading is being contested, a copy of the applicant's crew members' grade reports;
 - (vi) a copy of all materials that document the applicant's performance on the contested test items (i.e., examiner notes, notes/procedure markups/calculations made by the applicant, simulator strip chart recordings, video or audio recordings, if available, etc.); and
 - (vii) if the applicant's version of the events disagrees with the examiner of record's version, a signed written statement from the examiner of record reiterating and detailing exactly what the applicant did or did not do may be required. This should be part of the affected region's formal review of the contested items.

- g. In cases where the applicant's version of the events disagrees with the examiner of record's version, the reviewer(s) is/are generally expected to utilize the NRC examiner's version of events in conducting the review, unless there is impartial (e.g., simulator video or audio recordings) evidence to the contrary.
- h. If necessary, the reviewer(s) may request the facility to make the simulator available, and the reviewer(s) may travel to the site to review the applicable scenarios or JPMs on the plant-referenced simulator. If the simulator software has been modified since the examination, then the lead program office will evaluate the extent of the change, how it would modify the validity of the contentions and if a trip to the site would still provide the necessary information. If a trip to the site is warranted, then the reviewer(s) will notify DIRS or DCIP, as applicable, of the decision.
- i. Upon determining the applicant's actual actions during the contested test items, the reviewer(s) shall utilize the grading policies contained in NUREG-1021, ES303, to re-grade the contested portion(s) of the operating test. In particular, the reviewers shall determine for the Walk-through test whether any JPM critical steps were omitted or incorrectly performed; for the Simulator Operating Test whether the competencies were appropriately scored; and, in general, the accuracy and applicant performance on any follow-up questions. In addition, the reviewer(s) shall examine the validity of the contested operating test items, including whether critical steps and critical tasks were in fact critical, and whether the associated JPM guides/scenario guides were technically and psychometrically correct. For each contested test item, the following is a list of typical possible outcomes:
 - (i) Delete the test item, due to a psychometric-related problem (e.g., JPM cue unclear, not an appropriate test item);
 - (ii) Delete the test item, due to technical problems (e.g., no truly correct actions);
 - (iii) Keep the test item as is, with no change in grading; or
 - (iv) Keep the test item, but change the applicant's grading or accept additional actions as correct based on additional technical information provided by the applicant or obtained from the facility licensee.

Upon determining an outcome for all contested test items, the reviewer(s) shall utilize NUREG-1021, ES-303 to determine the applicant's overall operating test score based on the remaining test items.

- j. Once the Administrative Review is complete and documented in a written report, pre-decisional drafts, e-mail correspondence, and other background information shall be handled in accordance with MD 3.53, "NRC Records and Document Management Program." An "Administrative Review" ADAMS package shall be created to store documents required to satisfy MD 3.4, "Release of Information to the Public" and IMC 0620, "Inspection Documents and Records."

2. Documenting Administrative Review Results

- a. All administrative review documents that contain personal information about the applicant (name, docket number, home address, grades, review results, etc.) are not to be made publically available; when entered in ADAMS, they shall be coded as sensitive, non-public documents. During a hearing, OGC will provide guidance concerning the public availability of any documents.
- b. There are three possible outcomes for any administrative review: (1) the original denial is overturned with a license to be issued, (2) the original denial is overturned but the licensing action is delayed, or (3) the original denial is sustained. If the administrative review overturns the application denial, the affected region shall be contacted to determine if the applicant has any waivers, deferrals, or medical conditions which would delay licensing. In addition, the licensing action will be delayed if the applicant's revised written examination score is 82 (74 for SRO-only) or below, and another applicant who failed the written examination can still request an administrative review or hearing.

If the applicant submitted a claim of bias/prejudice related to the examination administration coincident with the request for an administrative review, and the examination administrative review sustains the original denial, results of the review will only be documented following the completion of an MD 8.17 evaluation of the complaint. If the record does not support the complaint, the overall results will be documented and transmitted to the applicant as specified below. If the complaint is substantiated, the affected region's Regional Administrator may offer the applicant an immediate re-examination as discussed in Section C.1.

Depending on the overall results, the reviewer(s) shall prepare a cover

letter transmitting the review results to the applicant, as shown in Attachments 2, 3, or 4.

- c. The details of the review will be presented as an enclosure or enclosures to the cover letter. In all cases, each of the applicant's contentions will be addressed as discussed below.
- d. To enhance clarity, the review details should contain an overall summary section including the exam date(s), the date of the applicant's review request, the applicant's original score, and the applicant's revised score. This section also could contain a table that summarizes the reviewer's conclusions for each contested exam item (written question, JPM, or simulator event).
- e. The following information should be included for each contested item in the review details:

FOR WRITTEN EXAMS provide the following, as applicable –

- Question number
- K/A number and importance rating,
- The full text of the question, as it appeared on the original exam,
- The answer key answer choice,
- The applicant's answer choice,
- The full text of the applicant's contentions (preferred) or a well-constructed summary of the applicant's contention(s) if the applicant's contentions are excessively lengthy, and
- The NRC's analysis, response, and resolution of the applicant's contention(s).

Examples of written review details are presented in Attachment 5.

FOR OPERATING TEST JPMS, provide the following –

- JPM number (e.g., facility bank reference, exam reference, etc.),

- JPM title,
- Initial conditions,
- Initiating cue,
- The expected operator actions/summary of how the JPM should have been performed, per the facility licensee's procedures, for all improperly performed or contested steps,
- The applicant's actions as documented in the original grading and any follow-up questions and responses related to the JPM,
- The full text of the applicant's contentions (preferred) or a well-constructed summary of the applicant's contention(s) if the applicant's contentions are excessively lengthy, and
- The NRC's analysis, response, and resolution of the applicant's contention(s). If the NRC analysis does not agree with the applicant's contention(s) and sustains the original grading, the analysis should include the adverse consequences, if any, caused by the applicant's incorrect actions and/or the lack of knowledge or ability that the applicant demonstrated.

For OPERATING TEST SCENARIO EVENTS, provide the following –

- Scenario number and event number,
- Event title.
- The applicant's position on the crew during the event (e.g., RO, BOP, SRO, etc.),
- Important/relevant plant conditions prior to or coincident with the event.
- Expected operator actions/summary of how the scenario event should have been performed, per the facility licensee's procedures,
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- The applicant's actions as documented in the original grading and any follow-up questions and responses related to the scenario event,
- The full text of the applicant's contentions (preferred) or a well-constructed summary of the applicant's contention(s) if the applicant's contentions are excessively lengthy, and
- The NRC's analysis, response, and resolution of the applicant's contention(s). If the NRC analysis does not agree with the applicant's contention(s) and sustains the original grading, the analysis should include the adverse consequences caused by the applicant's incorrect actions and the lack of knowledge or ability that the applicant demonstrated.

Examples of operating test review details are presented in Attachment 6.

3. Hearing Documentation

This section provides a *brief* introduction to the two documents or collections of documents drafted by the NRC technical staff during a hearing: (a) the affidavit, and (b) the hearing file. These documents will be required if the staff still believes that the applicant should not be granted a license or an approved application. This section does not contain the details necessary to actually draft these documents. If these documents are necessary, consult NRR Office Instruction LIC-201 and contact the lead program office and/or OGC for past examples. All documentation shall be handled in accordance with MD 3.53, "NRC Records and Document Management Program."

- a. The affidavit/testimony is a legal document prepared by the technical staff and reviewed by OGC and the lead program office that presents the NRC's *position* that the applicant should not be granted a license or an approved application. The affidavit/testimony is prepared in a "running narrative" format (as if the preparer were actually talking to the judge), and is therefore *much* different in *style* than an administrative review. The affidavit/testimony also must be written for an audience that is *not* knowledgeable of the operator licensing process--the affidavit/testimony must include explanations and details when discussing NUREG-1021, 10 CFR 55, or other operator licensing requirements. When referring to references or other documents, the affidavit/testimony will reference the hearing file by document number.

The first part of the affidavit/testimony contains an introduction of the preparer, including the preparer's qualifications and his or her involvement in the case, to date. The affidavit/testimony will then contain a "running narrative" chronology that presents in detail the events that have taken place up to the applicant's demand for a hearing, including the resolution of any administrative NRC reviews. This chronology will include such items as when the license application (NRC Form 398) was submitted and approved, when and how the exam was developed, how the exam was administered, the results of the applicant's original grading, the results of any administrative review, etc. As video and audio recording of the simulator operating test is allowed by NUREG-1021, if video footage or audio recordings were used to support a failure, they should also be included. Otherwise, provide a statement that the facility elected not to record the simulator operating test. Finally, the affidavit/testimony will contain the NRC's analysis and resolution of the applicant's hearing contentions. The resolution of the contentions will be similar in *substance*, but not in *style*, to an administrative review.

- b. The Hearing File is an indexed collection of all documents, communications, and references associated with the applicant's case. Reference LIC-201 for a detailed listing of the Hearing File contents. As a part of the hearing file, a table of contents that identifies the documents by name and assigned item number is required. Documents contained in a typical hearing file include: the applicant's NRC Form 398, all or selected parts of NUREG-1021, all or selected parts of 10 CFR 55, that portion of the exam (written, walk-through, or simulator) in contention with answer key(s), any video and audio recordings of the applicant (if video or audio is available, for simulator operating test failures only), the applicant's grade report (operating test failure) or written exam answer sheet (written exam failure), the original license denial letter, the applicant's request for an administrative review, the NRC's administrative review acknowledgment letter, the NRC's administrative review results and subsequent license or application denial letter, the applicant's request for a hearing, and all facility technical references that support the NRC's analyses and overall decision to not grant the applicant a license or approved application. If applicable, and with the concurrence of Regional Management, OGC, and DIRS or DCIP, the hearing file may contain the results from an MD 8.17 evaluation of any action taken to submit a claim of bias/prejudice related to examination administration from the applicant.

F. ATTACHMENTS

Attachment 1, "Acknowledgment of an Applicant's Request for an Administrative Review"

Attachment 2, "Overturned License Denial and License Notification - Cover Letter"

Attachment 3, "Overturned License Denial and Delayed Licensing Action - Cover Letter"

Attachment 4, "Sustained License Denial - Cover Letter"

Attachment 5, "Sample Review Details for an Overturned Written Exam Failure"

Attachment 6, "Sample Review Details for a Sustained Operating Test Failure"

ATTACHMENT 1: Acknowledgment of an Applicant's Request for an Administrative Review

NRC Letterhead
(Date)

(Applicant's name)
(Street address)
(City, State, Zip Code)

Dear (Name):

I am acknowledging receipt of your letter (dated, postmarked on date), requesting an administrative NRC staff review of our proposed denial of your (reactor operator, senior reactor operator) license application. We will review the information and the material you provided and inform you of our decision.

Please be advised that the administrative review is described in section ES-502.D of NUREG1021, "Operator Licensing Examination Standards for Power Reactors." [The review process encompasses reconsideration of the grading of the examination items identified in your letter plus those identified by other applicants who also requested an administrative review.] [[The review process encompasses reconsideration of the eligibility requirements for obtaining a reactor operator or senior reactor operator license.]] [[[Although you directed your request to the (Division of Inspection and Region Support in the Office of Nuclear Reactor Regulation OR Division of Construction Inspection and Operational Programs in the Office of New Reactors), we have determined that your review will be performed by the (Division of Inspection and Region Support in the Office of Nuclear Reactor Regulation OR Division of Construction Inspection and Operational Programs in the Office of New Reactors), and any additional correspondence will originate from that office.]]] We endeavor to complete the review process in a timely manner, generally within [75] [[60]] days.

Sincerely,

(Name), Director
(Division of Inspection and Regional Support) OR (Division of Construction Inspection and Operational Programs)
(Office of Nuclear Reactor Regulation) OR
(Office of New Reactors)

Docket No. 55-(number)

Contact: (Name), NRR/DIRS/IOLB or NRO/DCIP/HOIB, 301-415-(XXXX)

[] Used when performing an administrative review of an examination denial. [[
]] Used when performing an administrative review of an application denial.
[[[]]] Used when the program office from whom the review was requested is
not the program office that will be performing the review.

ATTACHMENT 2: Overturned License Denial and License Notification - Cover Letter

NRC Letterhead
(Date)

(Applicant's name)
(Street address)
(City, State, Zip Code)

Dear (Name):

In response to your letter of (date), the staff of the U.S. Nuclear Regulatory Commission (NRC) has reviewed the grading of the (written examination and/or operating test) administered to you on (date(s)) and reconsidered the proposed denial issued to you on (date).

In light of the additional information you supplied, the staff has determined that you passed the (written examination and/or operating test) and satisfy the requirements of Title 10, Section 55.33(a), of the *Code of Federal Regulations* (10 CFR 55.33(a)) for approval of your license application. Region (number) will issue your (reactor operator, senior reactor operator) license pursuant to 10 CFR 55.51 and forward it to you under a separate cover letter.

For your information, I am enclosing a copy of the staff's resolution of each of your (written examination and/or operating test) comments. If you have any questions, please contact (name (NRR Operator Licensing and Training Branch Chief)) at (telephone number).

Sincerely,

(Name), Director
(Division of Inspection and Regional Support) OR (Division of Construction Inspection and Operational Programs)
(Office of Nuclear Reactor Regulation) OR
(Office of New Reactors)

Docket No. 55-(number)

Enclosure: As stated

cc: (Facility representative who signed the applicant's NRC Form 398)

ATTACHMENT 3: Overturned License Denial and Delayed Licensing Action - Cover Letter

NRC Letterhead
(Date)

(Applicant's name)
(Street address)
(City, State, Zip Code)

Dear (Name):

In response to your letter of (date), the staff of the U.S. Nuclear Regulatory Commission (NRC) has reviewed the grading of the (written examination and/or operating test) administered to you on (date(s)) and reconsidered the proposed denial issued to you on (date). In light of the additional information you supplied, the staff has determined that you passed the (written examination and/or operating test).

However, as explained in paragraph D.3.c of Examination Standard (ES) 501 in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 10, we will not issue your license [until your employer certifies in writing that you have acquired all of the training and experience for which you were previously granted a deferral.] [[until we determine that your medical condition and general health are satisfactory for licensing.]] [[[because any written examination with a passing grade of 82 (74 for SRO-only) percent or below is normally held for review until those applicants who potentially failed the examination have had an opportunity to appeal their examination results or request a hearing pursuant to 10 CFR 2.103(b)(2).

After resolving potential changes from any appeal or hearing, the NRC will issue your license if your final grade remains above 80 (70 for SRO-only) percent. Should changes result in your final grade being below 80 (70 for SRO-only) percent, the NRC will send you a proposed denial letter, which will outline your response options.]]]

For your information, I am enclosing a copy of the staff's resolution of each of your (written examination and/or operating test) comments [[[plus any comments that were submitted by other applicants who also requested us to re-grade their examinations]]]. If you have any questions, please contact (name (NRR Operator Licensing and Training Branch Chief or NRO Human Performance, Operator Licensing and ITAAC Branch Chief)) at (telephone number).

Sincerely,

(Name), Director

(Division of Inspection and Regional
Support) OR (Division of Construction
Inspection and Operational Programs)
(Office of Nuclear Reactor Regulation) OR
(Office of New Reactors)

Docket No. 55-(number)

Enclosure: As stated

cc: (Facility representative who signed the applicant's NRC Form 398)

[] Use only for applicants who need to complete training or experience prior to licensing.

[[]] Use only for applicants whose medical condition is still under review.

[[[]]] Use only for applicants whose final licensing action is pending the resolution of other
written examination appeals or hearings.

ATTACHMENT 4: Sustained License Denial - Cover Letter

NRC Letterhead
(Date)

(Applicant's name)
(Street address)
(City, State, Zip Code)

Dear (Name):

In response to your letter of (date), the staff of the U.S. Nuclear Regulatory Commission (NRC) has reconsidered the proposed denial issued to you on (date) and reviewed the grading of the (written examination and/or operating test) administered to you on (date(s)). In spite of the additional information you supplied, the staff finds that you did not pass the (written examination and/or operating test). The results of our review are enclosed.

Consequently, the proposed denial of your license application is sustained. If you accept the proposed denial and decline to request a hearing within 20 days as discussed below, the proposed denial will become a final denial. You may then reapply for a license in accordance with Title 10, Section 55.35, of the *Code of Federal Regulations* (10 CFR 55.35), subject to the following conditions:

- a.¹ Because you passed (a written examination, an operating test) on (date(s)), you may request an excusal of that portion.
- b.¹ Because you did not pass the (written examination, operating test) administered to you on (date(s)), you will be required to retake that portion.
- c.¹ You may reapply for a license two months from the date of this letter.
- a.² Because this is your (second, subsequent) examination failure, you will be required to retake both the written examination and the operating test.
- b.² You may reapply for a license (6, 24) months from the date of this letter.
- a.³ Because you did not pass either the written examination or the operating test administered on (date(s)), you will be required to retake both the written examination and the operating test.
- b.³ You may reapply for a license two months from the date of this letter.

If you do not accept the proposed denial, you may, within 20 days of the date of this letter, demand a hearing in accordance with 10 CFR 2.103 (b)(2). This request must be submitted electronically in accordance with the requirements of 10 CFR 2.302, Filing of documents. Detailed guidance on making electronic submissions may be found in the Guidance for Electronic Submissions to the NRC and on the NRC Web site at <http://www.nrc.gov/site-help/e-submittals.html>.

Pursuant to 10 CFR 55.35, you may not reapply for a license until your application has been finally denied. Failure on your part to request a hearing within 20 days constitutes a waiver of your right to demand a hearing. For the purpose of reapplication under 10 CFR 55.35, such a waiver renders this letter a notice of final denial of your application, effective as of the date of this letter.

If you have any questions, please contact (name (NRR Operator Licensing and Training Branch Chief or NRO Human Performance, Operator Licensing and ITAAC Branch Chief)) at (telephone number).

Sincerely,

(Name), Director
(Division of Inspection and Regional Support) OR (Division of Construction Inspection and Operational Programs)
(Office of Nuclear Reactor Regulation) OR
(Office of New Reactors)

Docket No. 55-(number)

Enclosure: As stated

cc: (Facility representative who signed the applicant's NRC Form 398)

CERTIFIED MAIL, RETURN RECEIPT REQUESTED

- 1 Use for initial RO or SRO license applicants who passed either the written examination or the operating test, but failed the other.
- 2 Use for second and subsequent retake applicants.
- 3 Use for applicants who failed both the written examination and the operating test.

ATTACHMENT 5: Sample Review Details for an Overturned Written Exam Failure

ADMISTRATIVE REVIEW RESULTS - ROBERT C. NUCLEAR
SENIOR REACTOR OPERATOR APPLICANT - PWR UNITS 1 and 2

In response to the applicant's letter of April 2, 2000, the U.S. Nuclear Regulatory Commission (NRC) reconsidered the proposed denial issued on March 24, 2000, and reviewed the grading of the written examination administered to the applicant on March 5, 2000. In light of the information supplied by the applicant, the NRC has determined that the applicant did pass the written examination. The results of NRC's review are outlined below.

NUREG-1021 Rev. 9 Passing Scores:	SRO-only \geq 70.00%	Total \geq 80.00%
Applicant's original score (after NRC Regional resolution of facility post-examination comments):	68.00% (17/25)	78.57% (77/98)

The applicant contested the grading of four questions as discussed below, and the review resulted in the following:

Q#	Applicant's Answer	Original Answer Key	Applicant's Contention	This Review's Result
12	B	D	Answer choice B is also a correct answer.	Agree. Both answer choices B and D will be accepted as correct.
14	C	B	Answer choice C is also a correct answer.	Disagree. Answer choice B is the only correct answer.
92	B	A	Answer choice B is the correct answer.	Partially agree with applicant's contentions. However, upon further review the question is deleted.
96	D	B	Delete the question; no correct answer.	Disagree. Answer choice B is the only correct answer.

Applicant's final revised scores, as a result of this review:	SRO-only	Total
	70.83% (17/24)	80.41% (78/97)

Examination Question #12: (K/A 076K3.01 (3.4/3.6))

Given the following plant conditions:

- Unit #1 is operating at 100%.
- All systems aligned normal.
- Loss ERCW Supply header 2A occurs due to a rupture in the yard.

Which ONE (1) of the following describes indications the Unit 1 operator would see in the main control room in this event? (Assume no operator actions).

- A. Ice condenser chillers trip.
- B. Immediate containment pressure increase.
- C. General ventilation chillers trip.
- D. CCS surge tank level increasing with auto makeup valve closed.

Answer Key: D

Applicant's Answer: B

Applicant Comment(s):

“Candidate contends that answer B is also correct. Since the 1A & 2A ERCW supply trains are cross-tied (Attachments 12b & 12c), the cooling water to the Unit 1 containment coolers will be interrupted, and resulting in a prompt rise in containment temperature and pressure. The scenario of the 2A ERCW yard rupture was performed on the simulator on 4/01/00, with facility instructors and myself in attendance. Containment pressure began to increase immediately when the rupture occurred (Attachments 12d). Containment pressure is constantly monitored on PNL 1-M-6 to maintain compliance with T.S. 3.6.1.4 (Attachment 12e), which has a one hour action statement that is applicable in Modes 1-4. This is what the Unit 1 operator would see while remaining in his area of responsibility (Attachment 12f).”

NRC CONCLUSION:

The NRC agrees with the applicant's contention. The question will be retained, with both answer choices B and D accepted as a correct answer.

NRC ANALYSIS:

Based on a review of system drawings, procedure AOP-M.01, "Loss of Essential Raw Cooling Water," and the information provided by the applicant, the NRC agrees with the applicant. The 1A and 2A ERCW supply trains are cross connected, such that a yard rupture on the 2A supply train would result in flow out the rupture from BOTH the 1A and 2A ERCW supply trains. This would result in a reduction in the heat removal capability provided by BOTH the 1A and 2A ERCW trains. Since the Unit 1 "A" and "C" Upper and Lower Containment coolers are cooled by the 1A ERCW train, a reduction in Unit 1 containment cooling could occur, depending on which containment coolers were in service at the time. A reduction in Unit 1 containment cooling would result in an increase in Unit 1 containment temperature and pressure.

Examination Question #14: (K/A 103G2.1.12 (2.9/4.0))

Which ONE (1) of the following conditions represents a loss of primary containment integrity per Technical Specification 3.6.1.1, Containment Integrity?

- A. With the reactor at 100% power, an electrician opens the outer airlock door.
- B. With the RCS average coolant temperature 250°F, an inspection of the equipment hatch determines that the hatch is NOT sealed.
- C. During an operability test of two normally open, redundant containment isolation valves at 100% power, one of the valves fails to close.
- D. During an Integrated Leakage Rate Test in Mode 5, containment leakage exceeds the maximum allowable Technical Specification leakage rate.

Answer Key: B

Applicant's Answer: C

Applicant Comment(s):

"The candidate contends that C is also correct for the following reasons:

The definition of containment integrity per the Tech Spec definitions (Attachment 14b) states that 'All penetrations required to be closed during accident conditions are ... Capable of being closed by an operable containment isolation valve system ...' and 'all equipment hatches are closed and sealed.'

So, by definition, both B & C are correct. The one hour action of TS 3.6.1.1 (Attachment 14c) only states that 'without primary containment integrity, restore containment integrity within 1 hour or be in hot standby within the next six hours and in cold shutdown within the next 30 hours.'

NRC CONCLUSION:

The NRC does not agree with the applicant's contention, and sustained the question's original grading. The question will be retained, with only answer choice B accepted as the correct answer.

NRC ANALYSIS:

Based on a review of the applicable Technical Specifications (TS), TS definitions, TS bases (TS 3.6.1.1, 3.6.3, 1.7) and discussions with facility personnel, the NRC has determined that the conditions of answer choice C do not represent a loss of primary containment integrity. Since only one of the redundant containment isolation valves failed to close, the penetration can still be closed by the other redundant valve. The penetration is therefore capable of being closed by an operable containment automatic isolation valve system. If answer choice C conditions existed, TS 3.6.1.1, "Containment Integrity," would not be entered, and TS 3.6.1.1 actions within one hour would not be required. Instead, TS 3.6.3, "Containment Isolation Valves," would be entered, and would require the isolation of the "penetration within 4 hours by use of at least one closed deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured..."

ATTACHMENT 6: Sample Review Details for a Sustained Operating Test Failure

ADMINISTRATIVE REVIEW RESULTS - ROBERT C. NUCLEAR
SENIOR REACTOR OPERATOR APPLICANT - PWR UNITS 1 and 2

In response to the applicant's letter of April 2, 2000, the U.S. Nuclear Regulatory Commission (NRC) reconsidered the proposed denial issued on March 24, 2000, and reviewed the grading of the operating test administered to the applicant on March 6 - 9, 2000. In spite of the information supplied by the applicant, the NRC has determined that the applicant did not pass the operating test. The results of NRC's review are outlined below.

OVERALL SUMMARY

The applicant requested a review of his performance on Job Performance Measure (JPM) NRCADMIN-JPM-01A/SRO, "Perform a Shutdown Margin with a Dropped Rod." The findings of this review agreed with the original grading. The applicant's performance on this JPM was determined to be UNSATISFACTORY. Since the applicant also demonstrated unsatisfactory performance on topics A.1 and A.4, his overall performance on the Administrative Topics section of the examination was determined to be UNSATISFACTORY.

REVIEW DETAILS FOR JPM NRC-ADMIN-JPM-01A/SRO, "Perform a Shutdown Margin with a Dropped Rod"

This administrative JPM required the applicant to perform a shutdown margin (SDM) calculation. The applicant was provided the necessary references, a calculator, and the following initial conditions and initiating cue:

Initial Conditions:

"Unit One is stable at 90% power.
A dropped rod occurred 5 minutes ago.
RCS temperature is stable at 567°F.
Core age is 7521 MWD/MTU.
'D' bank rod height is currently 191 steps.
RCS boron concentration is 900 ppm as measured 2 hours ago, no borations or dilutions have occurred since."

Initiating Cue:

"The Unit One SRO has requested you perform an independent shutdown margin to verify the Shutdown Margin calculated by the shift STA. Here is a verified current copy of 1-OP-RX-001, SHUTDOWN MARGIN (CALCULATED AT POWER). You are requested to perform an at power shutdown margin calculation."

Original Grading:

The applicant was expected to calculate that the SDM was -2453.9 pcm, with an allowed error band of ± 37.5 pcm (i.e., allowed SDM between **-2491.4 and -2416.4 pcm**).

However, Mr. Nuclear determined that the SDM was **-2512.9 pcm**, which was outside the JPM's allowed range. Mr. Nuclear's calculated SDM was outside the JPM allowed SDM band, due to an error in his determination of power defect.

APPLICANT'S CONTENTION:

The applicant contends that this JPM was graded too severely, in that the allowed band for SDM was too restrictive. The applicant provided the following paragraphs to support his position:

"In the initiating cues of the JPM the following statement was made, 'The Unit One SRO has requested you to perform an independent shutdown margin to verify the shutdown margin calculated by the Shift STA.', this implies that the applicant was to corroborate the general correctness of the STA's calculation. The shutdown margin was for a dropped rod, which requires a SDM to be performed within one hour, and the STA would have already consumed a portion of that clock. Therefore, with this in mind, a quick verification of the accuracy of the STA's results would be prudent in order to meet the T.S. [Technical Specification] requirement. If the SDM had been close to or below the requirement, the correct action would be to increase the SDM and not take the time to pinpoint the exact numerical value of the SDM at that time. The deviation between the acceptable value, -2453.9 pcm, and the calculated -2512.9 pcm, is negligible when considering the deviation from the limit of -1770 pcm.

1-OP-RX-001, 'Shutdown Margin Calculated at Power' allows for a greater deviation for Power Defect than was allowed for the examination. On Page 6 step 5.1.1 in 1-OP-RX001 (enclosed), the boron concentration is allowed to be within ± 50 ppm of actual boron concentration. This allowance in boron concentration can translate to a difference of ± 50 pcm for the power defect and has been deemed acceptable for determining a shutdown margin. Applying the allowed deviation for boron concentration to the presented boron concentration would give a +32 and -44 pcm range (derived from Power Defect Curve in 1-DRP-003 PWR Unit 1 Cycle 17 enclosed- see pg. 64). Procedurally this sets the range from -1792 pcm to -1716 pcm for the Power defect. In reading the graph there is the allowed ± 25 pcm for interpolation variances, which will then set the band from -1817 pcm to -1691 pcm. This band represents a band both accepted from a procedural tolerance and a graph reading tolerance. The answer of -1700 pcm now falls within the more accurate and fair band. The final shutdown margin's band, with the new band for Power Defect, would then be -2535.4 pcm to -2384.4 pcm, which would make -2512.9 pcm a correct answer.

The applicant only deviated from the calculated shutdown margin of -2453.9 pcm by 46.5 pcm. This represents a 1.89 percentage deviation that would have no adverse impact on the operation of the plant. The deviation of 46.5 pcm is also less than the allowed deviation due to boron concentration, which could represent a 100 pcm difference.”

The applicant summarized his contention in his last paragraph:

“It is the applicants view that the requirements of 10CFR55.45(a)(12), ‘Demonstrate the knowledge and ability as appropriate to the assigned position to assume the responsibilities associated with the safe operation of the facility,’ was clearly met with the performance of the shutdown margin correctly and as accurately as allowed by procedure and available material.”

NRC CONCLUSION:

The NRC does not agree with the applicant’s contention. The NRC agrees with this JPM’s original grading. The applicant’s performance on this JPM remains UNSATISFACTORY.

NRC ANALYSIS:

The applicant’s contention, that his calculated SDM should be considered acceptable, can be summarized into three arguments:

1. Only a quick verification or a corroboration of the STA’s SDM was required. Due to the one-hour technical specification (TS) requirement to calculate SDM, an exact numerical calculation of SDM was not required.
2. The JPM’s allowed band for SDM was overly restrictive. The procedure for calculating SDM (1-OP-RX-001) allows for a larger band for SDM.
3. The deviation between my calculated value of SDM (-2512.9 pcm) and the allowed band for SDM (-2491.4 and 2416.4 pcm) was negligible. My calculation would result in no adverse impact to plant operations.

The NRC, however, does not agree with the merit of these arguments. Each argument is discussed below.

Argument #1: Only a quick verification or a corroboration of the STA’s SDM was required.

The applicant argues, that due to the one-hour time constraint contained in TS, that only a quick verification of SDM was required. The applicant further argues that part of this clock has

already been consumed during the STA's calculation. The NRC disagrees with this argument, based on three counter-arguments:

1. This JPM was not time critical, i.e., there was no preset time limit for satisfactory completion of this JPM. As long as the applicant was making progress, he would have been allowed to continue. Any time pressure perceived by the applicant was *created* by the applicant.
2. Even if the applicant did perceive time pressure (due to the one-hour TS clock), he would have had 55 minutes to complete his calculation, which was ample time to accurately calculate SDM. Although the STA may have already consumed a portion of the one-hour TS clock, the initial conditions clearly state that "a rod dropped 5 minutes ago," which indicated that there were 55 minutes left on the one-hour clock.

3. The JPM's initiating cue clearly states, on two occasions, to perform a SDM calculation:

"The Unit One SRO has requested you perform an independent shutdown margin..."

"You are requested to perform an at-power shutdown margin calculation."

The JPM did not ask the applicant to perform a "quick verification" or "corroboration."

Argument #2: The JPM's allowed band for SDM was overly restrictive. The procedure allows for a larger band for SDM.

The applicant supports this argument based on the following:

1. The procedure (1-OP-RX-001) allows for the boron concentration to be used in the calculation to be within ± 50 ppm of actual boron. This allowance for boron concentration can translate into a ± 50 pcm deviation in power defect.
2. In reading the power defect graph, there is an allowed variance of ± 25 pcm.

By adding the variances of 1 and 2 above, the applicant argues for a larger band for allowed SDM.

The NRC disagrees with this argument, based on two counter-arguments:

1. The allowed error in boron concentration of ± 50 ppm is exactly that - an allowed error in boron concentration. The allowed error in boron concentration does not somehow translate into other allowed operator calculation errors, such as errors associated with reading the power defect graph. If it was assumed that the operator miscalculated power defect by the equivalent of 50 ppm boron, then there would be no margin for error

in allowed boron concentration, which is contrary to the ± 50 ppm boron error allowed in procedure 1-OP-RX-001.

2. The JPM's original band for allowed SDM was properly determined. The JPM properly accounted for all graph reading tolerances ($\pm 1/2$ division), including reading the power defect graph (± 25 pcm).

Argument #3: The applicant's calculated SDM should be graded as acceptable, since there was no adverse impact to plant operations associated with his calculation.

The applicant supported this argument by stating that:

1. His calculated value differed from the allowed value by a negligible amount (46.5 pcm or 1.89%).
2. Given that the TS limit on SDM is -1770 pcm, there was no adverse impact associated with his determination of SDM (-2512.9 pcm).

The NRC agrees with part of this argument - there was no adverse impact on the plant due to his calculation. However, the NRC disagrees that this should make the applicant's calculated SDM acceptable:

1. As stated above in argument #2, the JPM's original band for allowed SDM was properly determined. The JPM properly accounted for all graph reading tolerances ($\pm 1/2$ division) and interpolations.
2. Both the NRC Chief Examiner and facility licensee personnel agreed upon the JPM's allowed SDM band prior to exam administration.
3. The applicant did incorrectly determine power defect. Based on a careful examination of the power defect graph, the applicant's determination of -1700 pcm for power defect was clearly in error.
4. If "adverse plant impact" was the only grading basis, then an applicant could be in error by several hundred pcm. Allowing a several hundred pcm error would clearly not be a proper criterion for determining operator competence, and would not allow the JPM to discriminate between competent and non-competent operators.

Summary:

The NRC does not agree with the merit of the applicant's contention. The JPM was originally graded fairly, using a properly determined allowed band for SDM. In no way did the JPM ask the applicant to only perform a quick verification of SDM, nor did the JPM contain any time

constraints. Although in this particular case the applicant's error would not result in an adverse impact to the plant, there could be other situations where his error would result in adverse effects. This JPM, as written and including its original grading criteria, was a proper measure of operator competence.