JAN 31 1990

In Reply Refer To:
Docket: 50-285

Omaha Public Power District
ATTN: Kenneth J. Morris, Division Manager
Nuclear Operations
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Gentlemen:

SUBJECT: LICENSING EXAMINATIONS AT FORT CALHOUN STATION (FCS)

In a telephone conversation between Mr. John Hermann of your staff and Mr. John L. Pellet, Chief Examiner, arrangements were made for the administration of licensing examinations at FCS during the week of May 14, 1990.

To meet the above schedule, it will be necessary for you to furnish the reference material listed in Enclosure 1, "Reference Material Requirements for Reactor/Senior Reactor Operator Licensing Examinations," by April 14, 1990. Any delay in receiving approved, properly bound, and indexed reference material could result in a delay in administering the examinations. Mr. Hermann has been advised of our reference material requirements and where to send the material.

You are responsible for providing adequate space and accommodations for administration of the written examinations. Enclosure 2, "Requirements for Administration of Written Examinations," describes our requirements for conducting these examinations. Mr. Herman has also been informed of these requirements.

Enclosure 3, "Procedures for the Administration of Written Examinations," contains the rules and guidelines that will be in effect during the administration of the written examinations. The facility management is responsible for ensuring that all applicants are aware of these rules.

The facility staff review of the written examinations will be conducted in accordance with requirements specified in Enclosure 4, "Requirements for Facility Review of Written Examinations." Mr. Hermann has been informed of these requirements.

RIV:C:OLS *	D:DRS *	D:DRP
JLPellet/lb	LJCallan	SJCollins
/ /90	/ /90	1/31 /90

*Previously concurred

1E42

All completed reactor operator and senior reactor operator license applications should be submitted at least 30 days before the first examination date so that we shall be able to review the training and experience of the candidates, process the medical certifications, and prepare final examiner assignments after applicant eligibility has been determined. If the applications are not received at least 30 days before the examination date, it is likely that a postponement will be necessary.

This request is covered by Office of Management and Budget Clearance Number 3150-0101, which expires May 31, 1992. The estimated average burden is 7.7 hours per response, including gathering, copying, and mailing the required material. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Records and Reports Management Branch, Division of Information Support Services, Office of Information Resources Management, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555; and to the Paperwork Reduction Project (3150-0101), Office of Management and Budget, Washington, D.C. 20503.

Thank you for your consideration in this matter. If you have any questions regarding the examination procedures and requirements, please contact Mr. J. L. Pellet, Chief, Operator Licensing Section, at (817) 860-8159.

Sincerely,

Original Signed By:
Samuel J. Collins

Samuel J. Collins, Director
Division of Reactor Projects

Enclosures:
1. Reference Material Requirements for Reactor/Senior Reactor Operator Licensing Examinations
2. Requirements for Administration of Written Examinations
3. Procedures for Administration of Written Examinations
4. Requirements for Facility Review of Written Examinations

cc w/enclosures:
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bcc to DMB (IE42)

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ENCLOSURE 1

REFERENCE MATERIAL REQUIREMENTS FOR REACTOR/SENIOR REACTOR OPERATOR LICENSING EXAMINATIONS

1. Existing learning objectives, job performance measures, and lesson plans (including training manuals, plant orientation manual, system descriptions, reactor theory, thermodynamics, etc.).

   Training materials should include all substantive written material used for preparing applicants for initial RO and SRO licensing. The written material should include learning objectives and the details presented during lectures, rather than outlines. Training materials should be identified by plant and unit, bound, and indexed. Failure to provide complete, properly bound, and indexed plant reference material may result in the cancellation of the examinations and the return of the material to the person who is the corporate officer responsible for plant operation (e.g., Vice President of Nuclear Operations). If there are deficiencies in the licensee material, this should be explained in a cover letter accompanying the material. Training materials, which include the following, should be provided:

   - System descriptions including descriptions of all operationally relevant flow paths, components, controls, and instrumentation. System training material should draw parallels to the actual procedures used for operating the applicable system.

   - Complete and operationally useful descriptions of all safety-system interactions and, where available, BOP system interactions under emergency and abnormal conditions, including consequences of anticipated operator error, maintenance error, and equipment failure.

   - Training material used to clarify and strengthen understanding of emergency operating procedures.

   - Comprehensive theory material that includes fundamentals in the area of theory of reactor operation, thermodynamics, heat transfer, and fluid flow, as well as specific application to actual in-plant components. For example, mechanical theory material on pumps should include pump theory as well as descriptions of how these principles actually apply to major plant pumps and the systems in which they are installed (i.e., reactor coolant pumps, all ECCS pumps, recirculation pumps, feedwater pumps, and emergency feedwater pumps). Reactor theory material should include descriptions that draw explicit ties between the fundamentals and the actual operating limits followed in the plant (i.e., reactor theory material should contain explanations as to how principles relate to the actual curves used by operators to verify shutdown ECP margin or calculate an ECP).

2. Complete Procedure Index (including surveillance procedures, etc.)

3. All administrative procedures (as applicable to reactor operation or safety)

4. All integrated plant procedures (normal or general operating procedures)

5. Emergency procedures (emergency instructions, abnormal or special procedures)

6. Standing orders (important orders that are safety-related and may supersede the regular procedures)

7. Surveillance procedures (procedures that are run frequently, i.e., weekly or that can be run on the simulator)

8. Fuel-handling and core-loading procedures, (initial core-loading procedure, when appropriate)

9. Annunciator/alarm procedures

10. Radiation protection manual (radiation control manual or procedures)

11. Emergency plan implementing procedures

12. Technical Specifications (and interpretations, if available)

13. System operating procedures

14. Piping and instrumentation diagrams, electrical single-line diagrams, or flow diagrams

15. Technical Data Book, and/or plant curve information as used by operators and facility precautions, limitations, and setpoints (PLS) for the facility

16. Questions and answers specific to the facility training program which may be used in the written or operating examinations (voluntary by facility licensee)

17. The following material for the plant reference simulation facility:

    a. List of all preprogrammed initial conditions

    b. List of all present malfunctions with a clear identification number. The list should include cause and effect information. Specifically, for each malfunction a concise description of the expected result, or range of results, that will occur upon implementation should be provided. Additionally, an indication of which annunciators are to be initially expected should be given.

c. A description of simulator failure capabilities for valves, breakers, indicators, and alarms

d. Where the capability exists, an explanation of the ability to vary the severity of a particular malfunction should be provided, i.e., ability to vary the size of a given LOCA or steam leak, or the ability to cause a slow failure of a component such as a feed pump, turbine generator, or major valve (e.g., drifting shut of a main feedwater control valve)

e. An identification of modeling conditions/problems that may impact the examination

f. Identification of any known performance test discrepancies not yet corrected

g. Identification of differences between the simulator and the reference plant's control room

h. Copies of facility generated scenarios that expose the applicants to situations of decreased pressure control (PWR), degraded heat removal capability (PWR and BWR) and containment challenges (PWR and BWR) may be provided (voluntary by licensee)

i. Simulator instructor's manual (voluntary by licensee)

j. Description of the scenarios used for the training class (voluntary by licensee)

18. Additional material required by the examiners to develop examinations that meet the requirements of these Standards and the regulations.

The above reference material should be the approved, current issue, and it should be so marked. If a plant has not finalized some of the material, the Chief Examiner shall verify with the facility that the most complete, up-to-date material is available and that agreement has been reached with the licensee for limiting changes before the administration of the examination. All procedures and reference material should be bound in the form used by the control room operators, with appropriate indexes or tables of contents so that they can be used efficiently.

ENCLOSURE 2

REQUIREMENTS FOR ADMINISTRATION OF WRITTEN EXAMINATIONS

1. A single room shall be provided for administration of the written examination. The location of this room and supporting restroom facilities shall be such as to prevent contact with all other facility and/or contractor personnel during the written examination. If necessary, the facility should make arrangements for the use of a suitable room at a local school, motel, or other building. Obtaining this room is the responsibility of the licensee.

2. Minimum spacing is required to ensure examination integrity as determined by the Chief Examiner. Minimum spacing should be one applicant per table, with a 3-foot space between tables.

3. Suitable arrangements shall be made by the facility if the applicants are to have lunch, coffee, or other refreshments. These arrangements shall comply with Item 1 above and shall be reviewed by the examiner and/or proctor.

4. The facility licensee shall provide pads of 8 1/2- by 11-inch lined paper in unopened packages for each applicant's use in completing the examination. The examiner shall distribute these pads to the applicants.

5. Applicants may bring pens, pencils, calculators, or slide rules into the examination room. Only black ink or dark pencils should be used for writing answers to questions.

6. The licensee shall provide one set of steam tables for each applicant. When requested by the Chief Examiner, the licensee shall prepare copies of large documents (e.g., Technical Specifications, Emergency Plan Implementing Procedures, or Emergency Operating Procedures) for use by the applicants. Such request will normally be made to the licensee at least one working day prior to the written examination. The examiner shall distribute the steam tables to the applicants. No wall charts, models, and/or other training materials shall be visible in the examination room. No other equipment or reference material shall be allowed unless provided by the examiner.

ENCLOSURE 3

PROCEDURES FOR THE ADMINISTRATION OF WRITTEN EXAMINATIONS

The Chief Examiner or Proctor shall:

1. Check identification badges.

2. Pass out examinations and all handouts. Remind applicants not to review examination until instructed to do so.

READ THE FOLLOWING INSTRUCTIONS VERBATIM:

"During the administration of this examination the following rules apply:

"1. Cheating on the examination means an automatic denial of your application and could result in more severe penalties.

"2. After the examination has been completed, you must sign the statement on the cover sheet indicating that the work is your own and you have not received or given assistance in completing the examination. This must be done after you complete the examination."

READ THE FOLLOWING INSTRUCTIONS:

1. Restroom trips are to be limited and only one applicant at a time may leave. You must avoid all contacts with anyone outside the examination room to avoid even the appearance or possibility of cheating.

2. Use black ink or dark pencil only to facilitate legible reproductions.

3. Print your name in the blank provided in the upper right-hand corner of the examination cover sheet.

4. Fill in the date on the cover sheet of the examination (if necessary).

5. Use only the paper provided for your answers.

6. Print your name in the upper right-hand corner of the first page of each section of the answer sheet and initial each succeeding page.

7. Consecutively number each answer sheet.

8. Write "End of Category __" at the end of your answers to a category.

9. Start each category on a new page.

10. Write on only one side of the paper.

11. Write "Last Page" on the last answer sheet.

12. Number each answer to correspond with the question, for example: 1.4, 6.3.

13. Skip at least three lines between each answer.

14. Separate completed answer sheets from the pad and place them face down on your desk or table.

15. Use abbreviations only if they are commonly used in facility literature. Avoid using symbols such as less than or greater than signs to avoid a simple transposition error resulting in an incorrect answer. Write it out.

16. The point value for each question is indicated in parentheses after the question. The amount of blank space on an examination question page is NOT an indication of the depth of answer required.

17. Show all calculations, methods, or assumptions used to obtain an answer and justify your answer for any short answer or essay questions, whether indicated in the question or not.

18. Partial credit may be given. Therefore, ANSWER ALL PARTS OF THE QUESTION AND DO NOT LEAVE ANY ANSWER BLANK.

19. Proportional grading will be applied to short answer or essay questions requesting a list. Any additional wrong information that is provided may count against you. For example, if a question is worth one point and asks for four responses, each of which is worth 0.25 points, and you give five responses, each of your responses will be worth 0.20 points. If one of your five responses is incorrect, 0.20 will be deducted and your total credit for that question will be 0.80 instead of 1.00 even though you got the four correct answers.

20. If the intent of a question is unclear, ask questions of the examiner only.

21. When you complete your examination, you shall:

    a. Assemble your examination as follows:

        (1) Examination questions on top.

        (2) Examination aids - figures, tables, etc.

        (3) Answer pages including figures which are part of the answer.

    b. Turn in your examination and all pages used to answer the examination questions.

    c. Turn in all scrap paper and the balance of the paper that you did not use for answering the questions.

d. When you are done and have turned in your examination, leave the examination area (DEFINE THE AREA). If you are found in this area while the examination is still in progress, your license may be denied or revoked.

ENCLOSURE 4

REQUIREMENTS FOR FACILITY REVIEW OF WRITTEN EXAMINATIONS

1. At the option of the Chief Examiner, the facility may review the written examination up to two weeks prior to its administration. This review may take place at the facility or in the Regional office. The Chief Examiner will coordinate the details of the review with the facility.

   Whenever this option of examination review is utilized, the facility reviewers shall sign the following statement prior to being allowed access to the examination:

   a. Preexamination Security Agreement

      I, _____, agree that I will not knowingly divulge any information concerning the replacement (or initial) examination scheduled for _____ to any unauthorized persons. I understand that I am not to participate in any instruction involving those reactor operator or senior reactor operator applicants scheduled to be administered the above replacement (or initial) examination from now until after the examination has been administered.

      _____
      Signature/Date

   In addition, the facility staff reviewers will sign the following statement after the written examination has been administered:

   b. Postexamination Security Agreement

      I, _____, did not, to the best of my knowledge, divulge any information concerning the written examination administered on _____ to any unauthorized persons. I did not participate in providing any instruction to those reactor operator and senior reactor operator applicants who were administered the examination from the time that I was allowed access to the examination.

      _____
      Signature/Date

2. Regardless of whether the above examination review option is exercised, immediately following the administration of the written examination, the facility will be provided a copy of the examination with all changes that were made during the examination administration for their review.

   If the facility did not review the examination prior to its administration, they will have five (5) working days from the day of the written examination to submit formal comments. If the facility reviewed the examination prior to its administration, any additional comments must be given to an examiner prior to his/her leaving the site at the end of the week of the written examination administration. In either case, the comments will be addressed to the responsible Regional office by the highest level of corporate management for plant operations, e.g., Vice President for Nuclear Operations. A copy of the submittal will be forwarded to the Chief Examiner, as appropriate. Comments not submitted within the required time frame will be considered for inclusion in the grading process on a case-by-case basis by the Regional Office Section Chief. Should the comment submittal deadline not be met, a long delay in grading the examinations may occur.

3. The following format should be adhered to for submittal of specific comments:

   a. Listing of NRC question, answer and reference

   b. Facility comment/recommendation

   c. Reference (to support facility comment)

NOTES:

1. No change to the examination will be made without submittal of a reference to support the facility comment. Any supporting documentation that was not previously supplied, should be provided.

2. Comments made without a concise facility recommendation will not be addressed.