

June 2, 2014

Dr. Jeff Geuther, Director  
Nuclear Reactor Facility Manager  
Kansas State University  
112 Ward Hall  
Manhattan, KS 66506-2500

SUBJECT: EXAMINATION NOTIFICATION LETTER NO. 50-188/OL-14-02, KANSAS  
STATE UNIVERSITY

Dear Dr. Geuther:

Arrangements have been made with you for the administration of operator licensing examinations at your Kansas State University reactor. The written and operating examinations are scheduled for the week of July 12, 2014.

To meet this schedule, please furnish the material listed in Enclosure 1, "Reference Material for Operator Licensing Examinations," in either hard copy to the address below, or electronic media format to [Phillip.Young@nrc.gov](mailto:Phillip.Young@nrc.gov), as soon as possible.

ATTN: Phillip T. Young  
M/S O-12 D-20  
U.S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852-2738

Enclosure 2, "Administration of Written Examinations," describes your responsibilities for conducting written examinations. Enclosure 3, "Procedures for the Administration of Written Examinations," describes applicant responsibilities during the administration of the written examination. Please ensure that all applicants are aware of these rules.

Your review of the written examination will be conducted in accordance with the procedures specified in Enclosure 4, "Facility Review of Written Examinations."

Final, signed reactor operator and senior reactor operator license applications certifying that all training has been completed must be submitted at least 14 days before the first examination dates. This will allow the chief examiner time to review the training and experience of the applicants, process the medical certifications, and process the applications. If this review cannot be completed in time to decide an applicant's eligibility, that applicant may not be permitted to sit for the examination. Therefore, it is recommended that license applications be provided as soon as possible to ensure an appropriate level of review.

The U.S. Nuclear Regulatory Commission (NRC) has posted copies of the application forms, "Personal Qualification Statement—Licensee" (NRC Form 398) and "Certification of Medical History by Facility Licensee" (NRC Form 396) on the agency's Web site at [www.nrc.gov/reading-rm/doccollections/forms/nrc398.pdf](http://www.nrc.gov/reading-rm/doccollections/forms/nrc398.pdf) and [www.nrc.gov/reading-rm/doccollections/forms/nrc396.pdf](http://www.nrc.gov/reading-rm/doccollections/forms/nrc396.pdf), respectively. These forms are in Adobe Acrobat® format.

This letter contains information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). These information collections were approved by the Office of Management and Budget, approval number 3150-0018.

The burden to the public for these mandatory information collections is estimated to average 7.7 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. Send comments regarding this burden estimate or any other aspect of these information collections, including suggestions for reducing the burden, to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet electronic mail to [INFOCOLLECTS@NRC.GOV](mailto:INFOCOLLECTS@NRC.GOV); and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0018), Office of Management and Budget, Washington, DC 20503.

The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

If you have any questions regarding the examination procedures and requirements, please contact me at (301) 415-4094, or email at [Phillip.Young@nrc.gov](mailto:Phillip.Young@nrc.gov).

Sincerely,

***/RA for Taylor Lamb/***

Phillip T. Young, Chief Examiner  
Research and Test Reactors Oversight Branch  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

Docket No. 50-188

Enclosures:

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

cc: w/o enclosures

Kansas State University

Docket No. 50-188

cc:

Office of the Governor  
State of Kansas  
Suite 2415  
300 SW 10<sup>th</sup> Avenue  
Topeka, KS 66612-1590

Thomas A. Conley, RRPJ, CHP  
Section Chief Radiation and Asbestos Control  
KS Dept of Health & Environment  
1000 SW Jackson, Suite 330  
Topeka, KS 66612-1365

Mayor of Manhattan  
P.O. Box 748  
Manhattan, KS 66502

Test, Research, and Training  
Reactor Newsletter  
University of Florida  
202 Nuclear Sciences Center  
Gainesville, FL 32611

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**DISTRIBUTION:**

PUBLIC      RidsNrrDprPrta      RidsNrrDprPrtb      Facility File (CRevelle)

**ADAMS ACCESSION No.: ML14149A391; Pkg ML14149A391**

**TEMPLATE NRR-079**

OFFICE	NRR/DPR/PROB	NRR/DPR/PROB	NRR/DPR/PROB
NAME	PYoung for C. Revelle	CRevelle	GBowman for T. Lamb
DATE	6/2/2014	6/2/2014	6/2/2014

**OFFICIAL RECORD COPY**

**REFERENCE MATERIAL FOR REACTOR/  
SENIOR REACTOR OPERATOR LICENSING EXAMINATIONS**

- 1) Training materials including all substantive written material used to prepare applicants for initial reactor operator and senior reactor operator licensing. The material should include learning objectives, if available, and details presented during lectures, rather than outlines. Training materials should be identified, bound, and indexed. Training materials should include the following:
  - (a) System descriptions including descriptions of all operationally relevant flowpaths, components, controls, and instrumentation. System training material should draw parallels to the actual procedures used for operating an applicable system.
  - (b) Learning objectives, student handouts, and lesson plans (including training manuals, facility orientation manual, system descriptions, reactor theory, thermodynamics).
  - (c) Complete and operationally useful descriptions of all safety-system interactions and secondary interactions under emergency and abnormal conditions, including consequences of anticipated operator error, maintenance error, and equipment failure.
  - (d) Training material used to clarify and strengthen understanding of emergency operating procedures.
- 2) Complete Procedure Index (including temporary procedures).
- 3) All administrative procedures as applicable to reactor operation or safety.
- 4) All integrated facility procedures, normal or general operating procedures, and procedures for experiments.
- 5) All emergency procedures, emergency instructions, and abnormal or special procedures.
- 6) Standing orders or procedures changed by reactor supervision and important orders or changes that are safety related and may supersede the regular procedures.
- 7) A list of all reactor facility surveillances, with copies of all **COMPLETED** surveillances which require the collection of data (e.g., heat balance, rod drop times).
- 8) Fuel-handling and core-loading procedures and initial core-loading procedure (if appropriate).
- 9) Any annunciator/alarm procedures, as applicable.
- 10) Radiation protection manual and radiation control manual or procedures.
- 11) Emergency plan and any emergency plan implementing procedures (EIPs).
- 12) Safety analysis report, technical specifications, and interpretations, if available.
- 13) System operating procedures, including experiments.

- 14) Piping and instrumentation diagrams, electrical single-line diagrams, and flow diagrams.
- 15) Technical data book, and/or facility curve information, as used by operators and facility precautions, limitations, and setpoints.
- 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) Facility modification authorizations, which were authorized since the last revision to the safety analysis report.
- 18) Additional material as requested by the examiners to develop examinations that meet the requirements of the research and test reactor examiner standards and regulations.

The above reference material should be approved, final issues and be so marked. If a facility has not finalized some of the material, the chief examiner should 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.

## **ADMINISTRATION OF WRITTEN EXAMINATIONS**

- 1) A single room must be provided for administration of the written examination. This room and supporting restroom facilities should be located so as to prevent contact with other facility personnel during the written examination.
- 2) Minimum spacing is necessary to ensure examination integrity. The chief examiner will determine whether the room has adequate area to support minimum spacing between examination applicants to ensure examination integrity.
- 3) The chief examiner will review any arrangements made by the facility to give the applicants lunch, coffee, or other refreshments. These arrangements shall comply with Item 1 above.
- 4) The facility licensee may provide pads of 8.5 by 11-inch lined paper in unopened packages for the applicant's use in completing the examination. The examiner will distribute these pads as needed.
- 5) Applicants may bring pens, pencils, calculators, or slide rules into the examination room. Black ink or dark pencils should be used for writing answers to questions.
- 6) The chief examiner must approve any wall charts, models, training materials, equipment, or reference material present in the examination room.
- 7) The chief examiner will give the facility staff a copy of the written examination with answer key at the beginning of the examination. The facility staff will then have 5 working days to submit formal written comments with supporting documentation regarding written examination questions and answers to the chief examiner.

## **PROCEDURES FOR THE ADMINISTRATION OF WRITTEN EXAMINATIONS**

- 1) Verify candidate identity.
- 2) Pass out examinations and handouts. Instruct applicants not to review examination until instructed to do so.

### **READ THE FOLLOWING INSTRUCTIONS VERBATIM:**

- 1) Cheating on the examination means an automatic denial of your application and could result in more severe penalties.
- 2) When you have completed your examination, you must sign the statement at the bottom of the cover sheet. This indicates that the work is your own and you have not received or given assistance in completing the examination.

### **READ THE FOLLOWING INSTRUCTIONS:**

With the start of the examination, you must comply with the following rules. These rules are in effect within the examination area (DEFINE THE AREA), until the last candidate has handed in his or her examination:

- 1) Restroom trips are limited to only one applicant at a time. You must avoid all contact with anyone outside the examination room to preclude even the appearance 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 corner of the examination cover sheet and each answer sheet.
- 4) Mark your answers on the answer sheet(s) provided.
- 5) The point value for each question is shown in brackets after the question.
- 6) If the intent of a question is unclear, ask questions of the examiner or proctor only.
- 7) There is a time limit of 1 hour per section of the written examination. For example, a one-section retake examination has a 1-hour time limit, while a normal three-section initial examination has a 3-hour time limit.
- 8) You must achieve a grade of 70 percent or greater in each category to pass the examination.
- 9) When turning in your examination, assemble the completed examination with examination questions, examination aids, answer sheets, and all scrap paper. Give the proctor your answer sheet(s) along with the signed cover sheet. Take all other material collected with you out of the examination area.
- 10) After turning in your examination, leave the examination area. If you are observed in this area while the examination is still in progress, your license may be denied or revoked.

- 11) During the examination you will be evaluated for your actions as if you were the actual watchstander. Please operate the reactor as if you were licensed, with the exception that you should announce your actions, and then pause momentarily to give the operator of record time to correct you or stop you, if necessary, before you actually perform the action. In addition, the examiner will be observing that you meet all conditions of your license, (e.g., wearing corrective lenses to perform licensed duties).



If members of the facility staff did not review the examination before its administration, they will have 5 working days from the day of the written examination to submit formal comments. If the facility staff reviewed the examination before its administration, they must submit any additional comments before the examiner leaves the facility. The reactor supervisor will address the comments to the chief examiner. The NRC will consider comments submitted after the required period on a case-by-case basis. This may cause delays in grading the examinations.

3. The facility licensee should submit comments in the following format:
  - list the question section and number and state the comment along with a recommendation for correction (e.g., delete, two correct answers)
  - support the comment with a reference and provide a copy of the reference if it was not included in the original reference material submitted

NOTES:

- 1) No change to the examination will be made without a reference to support the facility comment. Provide any supporting documentation not previously supplied.
- 2) Comments made without a concise facility recommendation will not be addressed.
- 3) Comments not submitted within the requested time will be included in the grading process on a case-by-case basis as determined by the NRC. Comments not submitted within the requested time will delay the examination grading process.
- 4) NRC policy is to delete a multiple-choice question that has no correct answer or more than two correct answers and to give credit for either response for questions that have two correct answers.