

NMSS:JEW
Control No. 15681

DEC 27 1984

Well Logging, Inc.
ATTN: Dwight A. Knoblett
President
P. O. Box 506
Nowata, Oklahoma 74048

Gentlemen:

This is in reference to your request for a byproduct material license renewal in the name of Well Logging, Inc. In order for us to complete our review of your request, please supply the following:

1. It is not clear from your renewal as to Well Logging, Inc.'s training requirements for each authorized user. The following training requirements should be completed by well logging personnel:
- a. Formal training should encompass a minimum of 24 hours duration covering the following topics:
 - (1) Fundamentals of Radiation Safety
 - (2) Radiation Detection Instrumentation to be Used
 - (3) Equipment to be Used
 - (4) The Requirements of Pertinent Federal Regulations (10 CFR 19, 20, 30, and 71 and DOT Title 49)
 - (5) The Licensee's Written Operating and Emergency (OE) Procedures
 - (6) The Licensee's Recordkeeping Procedures
 - (7) Case Histories and Potential Consequences of Accidents in Well-Logging Operations
 - b. The trainee should show evidence of satisfactory completion of this training by successfully passing an oral or written exam.
 - c. Formal on-the-job training should be, as a minimum, approximately 3 months duration working under the direct supervision of a user who has been specifically approved by the NRC, an Agreement State, or by a licensee in accordance with a specific license condition. Following

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the on-the-job training period, the preceptor should be able to attest to the fact that the trainee has demonstrated a clear and concise understanding of the duties and responsibilities of the job, OE procedures, NRC Regulations, and Well Logging Inc's byproduct material license.

Provide, for NRC review and approval, Well Logging, Inc.'s training outline for operators.

2. Utilization records should show for each recorded event the following information for each source of radiation:

- a. Make, model number, and a serial number or a description of each source of radiation used.
- b. ✓ The identity of the well logging supervisor or field unit to whom assigned.
- c. ✓ Locations and dates of use.
- d. ✓ In the case of tracer materials and radioactive markers, the utilization record shall indicate the radionuclide and activity used in a particular well.

Submit a copy of your utilization log for NRC evaluation or confirm that Well Logging, Inc.'s utilization logs contain all the information identified above.

3. Inspection and maintenance should be conducted, at intervals not to exceed 6 months, on source holders, logging tools, source handling tools, storage containers, transport containers, and injection tools to assure proper labeling and the device's physical condition. Should any damage be revealed, the device should be removed from service until repairs have been made. Records of inspection and maintenance should be maintained for a period of 2 years for inspection by the NRC. Amend your OE procedures for conducting inspection and maintenance of source holders, logging tools, source handling tools, storage containers, transport containers, and injection tools.
4. ✓ Each individual who will use or supervise the use of licensed material should be provided with a set of operating and emergency procedures. These procedures should include instructions in at least the following:
- a. Safe handling and use of sources of radiation to be employed under this license.

- b. Methods and occasions for conducting radiation surveys.
- c. Methods and occasions of locking and securing source(s) of radiation.
- d. Personnel monitoring and the use of personnel monitoring equipment.
- e. Transportation of source(s) of radiation to temporary job sites and field stations, including packaging, placarding of vehicles, and securing sources of radiation during transportation.
- f. Emergency procedures.
- g. Maintenance of records.
- h. Inspection and maintenance of source holders, logging tools, source handling tools, storage containers, transport containers, and injection tools.
- i. Procedures to be followed in the event a sealed source is lodged downhole.
- j. Procedures to be used for picking up, receiving, and opening packages containing radioactive material.
- k. The procedures to be used for site and equipment surveys and decontamination following tracer studies.

It is not necessary that you submit copies of your operating and emergency procedures. You need only state that you will provide a set of procedures as required above and restate the elements which will be included in them as specified above.

5. The following documents and records should be available at temporary job sites:
- a. Operating and emergency procedures.
 - b. Survey records for the period of operation at the temporary job site.
 - c. Evidence of current calibration for the radiation survey instruments in use at the temporary job sites.
 - d. When operating in an Agreement State under reciprocity, a copy of your NRC license.

It is not necessary to submit copies of documents you will have available at all temporary job sites. You need only state that you plan to have these documents available for NRC/Agreement State inspection, just restate the documents you plan to have available at each temporary job site.

6. ✓ The following documents and records should be available at field stations where radioactive materials are used or stored:

- a. Copy of the NRC license.
- b. Operating and emergency procedures.
- c. Applicable NRC regulations.
- d. Records of the latest survey instrument calibrations on each survey instrument.
- e. Records of the latest leak test results on each sealed source.
- f. Semiannual physical inventories.
- g. Utilization records.
- h. Records of inspection and maintenance.
- i. Survey records that denote compliance with 10 CFR 20.201.

It is not necessary to submit copies of documents you will have available at all field stations where radioactive materials are used. You need only state that you plan to have these documents available for NRC/Agreement State inspection. Just restate the documents you plan to have available at each field site using radioactive material.

7. Labeling pursuant to 10 CFR 20.203(f) should address the following:

- a. Each source, source holder, or logging tool containing radioactive material shall bear a durable, legible, and clearly visible marking or label, which has, as a minimum, the standard radiation caution symbol, without the conventional color requirement, and the following wording:

DANGER (OR CAUTION)
RADIOACTIVE

This labeling shall be on the smallest component transported as a separate piece of equipment.

- b. Each transport container shall have been permanently transported as a durable, legible, and clearly visible label which has, as a minimum, the standard radiation caution symbol and the following wording:

DANGER (OR CAUTION)
RADIOACTIVE
NOTIFY CIVIL AUTHORITIES (OR NAME OF YOUR COMPANY)

Verify from statements, drawings, sketches, etc., that the above requirements have been satisfied on the transport containers you currently possess.

8. ✓ It is not clear from your application how you plan to dispose of sealed sources. Provide for NRC review your procedures for disposal of sealed sources.
9. All personnel whose duties may require them to work in/around or visit a restricted area need to be informed about radiation hazards and appropriate precautions upon being hired and at least annually thereafter. Outline your method to assure that training prescribed in 10 CFR 19.12 will be conducted.
10. ✓ Sufficient calibrated and operable radiation survey instruments should be available at each field station to make physical radiation surveys as required by Section 20.201 of 10 CFR Part 20. Surveys should be made before and after the use of both sealed sources and tracer materials in well-logging operations. Amend your OE procedures to reflect this change and submit for NRC review.
11. ✓ Records of radiation surveys listed in Item 10 should include the following information:
- a. Dates.
 - b. Identification of individuals making surveys.
 - c. Identification of survey instrument used to make survey.
 - d. Exact description of the location of the survey.

Records of these surveys should be maintained for inspection by NRC for 2 years after the completion of the survey. Provide a copy of radiation survey forms Well Logging, Inc. uses in day-to-day operations or confirm that all the information listed above will be contained in Well Logging, Inc.'s, radiation survey forms.

12. All the procedures in 10 CFR 20.403, 20.405, and 30.56 (a through d) should be addressed in your OE procedures. Amend and resubmit your OE procedures to reflect these changes.

We will continue our review of your application upon receipt of this information. Please reply in duplicate and refer to Control No. 15681.

Sincerely,

Original Signed By
Jack E. Whitten

Jack E. Whitten
Nuclear Materials Safety Section

Enclosure:
10 CFR Part 20
10 CFR Part 30