

NMSS:JEW
Control No. 60325

MAY 30 1985

MIDCO, Inc.
ATTN: William O. Keller
Radiation Protection Officer
P. O. Box 6322
Moore, Oklahoma 73153

Gentlemen:

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

1. Well-logging licensees should have radiation survey instruments available at temporary job sites that are capable of measuring beta-gamma exposures from 0-20 milliroentgens per hour. List for NRC review the radiation survey instruments you have available to be used in performing radiation surveys by (a) type of instrument, (b) number of survey instruments available, (c) radiations detected, and (d) sensitivity range of each type of instrument.
2. If you intend to contract out the calibration of your radiation survey and monitoring instruments, you should specify the name, address, and the license number of the firm to be contracted. You should contact the firm that will provide calibration services to determine if information concerning calibration procedures has been filed with the Commission. If not, you should obtain information concerning calibration procedures and submit them for NRC staff review.
3. We have the following questions and comments concerning your proposed bioassay program:
 - a. We have some doubt as to the ability of an ordinary hand-held GM survey instrument to provide adequate sensitivity to detect a thyroid burden corresponding to the 0.04 microcurie action level for I-131 recommended in Regulatory Guide 8.20. Since all of the measured counts will be from low energy gammas, we have estimated that a thyroid burden of this magnitude would translate to less than 20 cpm in a typical field GM instrument. Submit supporting information (such as neck phantom studies) to show that your proposed program will be adequate to detect this action level. Include information on the type of instrument to be used, the range of normal background on the instrument, and its efficiency for detecting low energy gammas.

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- b. Item 2(a) of your bioassay procedure suggests that the field thyroid scan will be performed as soon as possible after the tracer job. Since iodine uptake by the thyroid would be negligible immediately following exposure, Regulatory Guide 8.20 recommends that bioassay samples or measurements should be obtained from 6 to 72 hours following the exposure.

Please submit for NRC staff review a revised bioassay procedure and the requested additional information to support Item II.D.2.b. and c. of your license application.

4. During each well-logging application, the operations supervisor or designated employee should maintain direct surveillance of the operations to protect against an unauthorized and/or unnecessary entry into a restricted area, as required by 10 CFR 20.207(b). Your renewal request should be amended to reflect this change when handling sealed sources.
5. 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 procedures for conducting inspection and maintenance of source holders, logging tools, source handling tools, storage containers, transport containers, and injection tools.
6. 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.

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ok 7. 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.

ok 8. 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.

ok 9. Procedures in 10 CFR 30.56 should be addressed in your renewal. Amend and resubmit your renewal amendment request to incorporate these changes.

ok 10. Suggested labeling pursuant to 10 CFR 20.203(f) should be as follows:

- 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 should have permanently attached to it 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)

Amend your renewal application to address the above suggested labeling criteria for your sources, source holders, or logging tools and resubmit for NRC staff review.

We will continue our review of your renewal upon receipt of this information. Please reply in duplicate and refer to Control No. 60325.

Sincerely,

Original Signed By
Jack E. Whitten

Jack E. Whitten
Nuclear Material Safety Section

bcc w/o enclosures:
RLBangart, D/DRSP