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RECORD #12

TITLE: Survey at End of a Radiography Operation

FICHE: 66153-168

0898/k



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

MAY 13 1982

MEMORANDUM FOR: MRPS Inspection Staff

FROM: D. G. Wiedeman, Acting Chief, Material Radiation Protection Section 1
D. J. Sreniawski, Chief, Material Radiation Protection Section 2

SUBJECT: INTERPRETATION OF 10 CFR 34.43(c)
(STAFF MEMORANDUM NO. M-36)

Attached for your information and use is guidance obtained from ELD in the interpretation of 10 CFR 34.43(b) and (c) regarding surveys by radiographers when the survey is the last survey prior to locking the exposure device and ending direct surveillance of the operation.

D. G. Wiedeman

D. J. Sreniawski

Attachments:
Ltrs dtd 1/22 & 3/18/82

cc w/attachments:
J. R. Miller
C. E. Norelius

central files

MAR 18 1982

Mr. Earl L. Banfield
Radiation Safety Officer
MAGNIFLUX Corporation
7300 West Lawrence Avenue
Chicago, Illinois 60656

Dear Mr. Banfield:

Thank you for your request, under 10 CFR 30.5, for a written interpretation of §34.43(c). Under §30.5, only the General Counsel is authorized to render a formal legal interpretation which is binding on the Commission. The General Counsel exercises this authority very sparingly and only in instances involving major policy or legal questions. Your request, therefore, has been referred to this office for reply.

You state in your letter that §34.43(c) "came into question when dealing with field radiography situations (i.e., radiography at a location other than the permanent storage location)." You then explain how you comply with §34.43(b), which requires a radiation survey "after each radiographic exposure to determine that the sealed source has been returned to the shielded position." Noting that §34.43(c), when taken together with 10 CFR 20.207, is unclear about when a record of the survey must be made, you question whether it should be made at the end of the field operation or before the device is placed back in the storage area. You argue that "surveillance is not ended until the device is back in storage" and "that the recorded survey of the device prior to placing it back in storage is [made] immediately prior to ending surveillance." Finally, you indicate that the Office of Inspection and Enforcement (IE) in Region III has cited MAGNIFLUX for making the record before the device was put back in storage and not at the end of the field operation.

We agree with IE's interpretation. Paragraph (c) of §34.43 states that "a record of the survey required in paragraph (b) shall be maintained for two years when the survey is the last survey prior to locking the radiographic exposure device and ending direct surveillance of the operation." (Emphasis added.)

10 CFR 34.43(b) and (c), read together, require a survey to be taken at the end of the radiographic operation, that is, while the radiographic exposure device is still under direct surveillance and before it is locked and taken back to storage. The requirement for a record is a measure intended to ensure, among other things, that radiographers out in the field stop and record their actions, after they finish the job and before they take a device

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back to storage. As originally proposed, §34.43 (see 43 Federal Register 12715, March 27, 1978) attempted to make this point by saying that the survey and record should be made "at the end of the work period." (43 FR 12718.) The language in the final rule (see 43 FR 50805, August 30, 1979) appears to be, in part, a result of the comments received requesting that the proposed rule be made clearer about the meaning of the phrase "end of the work period." It should be noted, though, that an additional survey and record before the device is put back in storage is a useful fail-safe procedure; nonetheless, it is not required after the survey and record at the end of the field operation.

Paragraphs (a) and (b) of §20.207 do not apply to the circumstances you describe. The security measures, such as locks, contemplated in paragraph (a) have a different purpose than the "locking" of the radiographic device described in §34.43(c). The "constant surveillance" requirement in paragraph (b) is intended to ensure that "licensed materials in an unrestricted area and not in storage shall be tended under the constant surveillance and immediate control of the licensee." (Emphasis added.) The paragraph clearly refers to materials in an unrestricted area and not in storage, and requires that the licensee keep these under constant surveillance and immediate control. Paragraph (a)(17) of §20.3 defines "unrestricted area" as "any area access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials, and any area used for residential quarters." Thus, paragraph (b) of §20.207 is intended to cover the use of licensed materials in a specified area, i.e., unrestricted area, and not the use of materials away from that area, as is the case with respect to the field operations you noted. In sum, paragraph (c) of §34.43, as discussed above, has an entirely different purpose from paragraphs (a) and (b) of §20.207, namely, to ensure that a last survey is taken and recorded at the end of the radiographic operation before the radiographic device is locked and put back into storage -- where it will no longer be "under direct surveillance."

Sincerely,

Thomas F. Dorian
 Attorney, Regulations Division
 Office of the Executive
 Legal Director

cc: Donald Gibbon, Region III
 Steve McGuire, RES
 Nathan Bassin, MISS

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MAGNAFLUX

Quality Services

January 22, 1982

United States Nuclear Regulatory Commission
Office of the General Counsel
Washington, DC 20555

Subject: Request for Interpretation of 10 CFR, Part 34.43

Gentlemen:

Pursuant to 10 CFR, Part 30.5, we are requesting a written interpretation of Part 34.43(c). Recently, the U. S. NRC Region III, Office of Inspection and Enforcement wrote a violation against Magnaflux Corporation (license 12-00622-07) regarding 34.43(c). We feel that whether or not Magnaflux Corporation adequately complied with the aforementioned portion of the regulation is a matter of interpretation. This portion of the regulations came into question when dealing with field radiography situations (i. e. radiography at a location other than the permanent storage location).

Currently, it is a practice of Magnaflux radiographers to perform and record the survey of the exposure device when the device is removed from the storage area. The device is placed in a shipping container (Type B). Another survey is performed and documented prior to transport. A survey is performed at the conclusion of each radiographic exposure (i. e. each time the source returned to the shielded position). Finally the exposure device is surveyed and recorded prior to placing the device back into the storage area.

Region III contends that Magnaflux did not comply with 34.43(c) since the survey at the conclusion of the last radiographic exposure was not recorded. Part 34.43(c) states "A record of the survey required in paragraph (b) shall be maintained for two years when the survey is the last survey prior to locking the radiographic exposure device and ending direct surveillance of the operation." However, our contention that we complied with 34.43(c) is also based on Part 20.207. Part 20.207(a) requires licensed materials stored in an unrestricted area be secured from unauthorized removal from the place of storage. Security measures such as locks are needed to comply with this regulation. Also, Part 20.207(b) requires licensed materials in an unrestricted

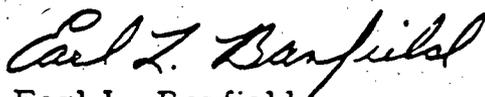
Page Two
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area and not in storage shall be tended under constant surveillance. Therefore, surveillance is not ended until the device is back in storage. The recorded survey of the device prior to placing it back in storage is immediately prior to ending surveillance.

We thank you for your assistance in clarifying the interpretation of this regulation.

Very truly yours,

MAGNAFLUX Quality Services,
A Division of MAGNAFLUX Corporation



Earl L. Banfield
Radiation Safety Officer

ELB/lk

CC: H. Doran
R. Faloon