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PDR

November 8, 1993

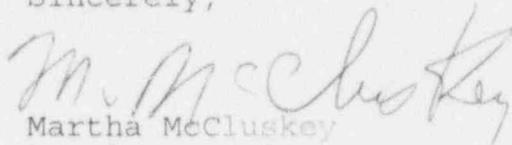
Nuclear Regulatory Commission  
Attn: Donald Nellis  
Office of Nuclear Regulatory Research  
Washington, DC 20555

Dear Mr. Nellis:

Please forward us a copy of "Radiography and Radiation Safety Requirements for Radiography Operations", RIN# 3150-AE07.

A self-addressed mailing label is enclosed. Thank you for your cooperation in this matter.

Sincerely,

  
Martha McCluskey  
Regulatory Affairs

MM/jc

Enclosure

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# RULEMAKING ISSUE

November 23, 1993

(Notation Vote)

SECY-93-317

FOR: The Commissioners

FROM: James M. Taylor, Executive Director for Operations

SUBJECT: PROPOSED RULEMAKING - REVISION TO PART 34, LICENSES FOR RADIOGRAPHY AND RADIATION SAFETY REQUIREMENTS FOR RADIOGRAPHIC OPERATIONS

PURPOSE:  
To obtain Commission approval of the proposed revision.

BACKGROUND:  
By a Staff Requirements Memorandum, dated April 25, 1991, the Commission directed the staff to revise Part 34 to clarify the requirements in Section 34.27, making Part 34 more consistent with the approach taken in Part E of the "Suggested State Regulations for Control of Radiation" (SSRCR), developed by the Conference of Radiation Control Program Directors (CRCPD) Inc., and Part 31 of the Texas regulations for the Control of Radiation. The staff was encouraged to work closely with the States, in particular, those States that have taken an active role in radiography issues.

The staff solicited recommendations on radiography issues from the Agreement States at the October 1991 All-Agreement States meeting, as well as from NRC regional offices, radiography equipment manufacturers, and radiography licensees. Also, an Agreement State workshop was held on November 18, 1992, in Dallas, Texas, to discuss the recommendations received from the Agreement States and licensees. The staff held separate discussions with the Agreement States and members of the public at the May 1991 CRCPD Annual Meeting in Wichita, Kansas, and at a workshop on mandatory radiographer certification on May 27-28, 1992 in Mobile, Alabama.

A petition for rulemaking was filed by the International Union of Operating Engineers (IUOE), Local No. 2, in October 1992, requesting that Part 34 be revised to require a minimum of two radiographic personnel when performing operations with radioactive material at temporary jobsites.

CONTACT:  
Cheryl A. Trottier, RES  
492-3640

NOTE: TO BE MADE PUBLICLY AVAILABLE WHEN THE FINAL SRM IS MADE AVAILABLE

~~940/310156~~

DISCUSSION:

In an effort to make Part 34 more comprehensible and to facilitate compliance, the format of the rule has been revised to categorize the safety requirements into subparts. This organization follows the same general format used in 10 CFR Part 39 which addresses radiation safety requirements for well logging. Enclosure 1 provides the current and proposed rule in a 2-column format for ease of review in comparing the proposed requirements with the existing rule.

The proposed revision to Part 34 contains a number of changes which would make NRC requirements more consistent with Agreement State regulations. These are discussed in detail in the Federal Register Notice (Enclosure 2). The major modifications to Part 34 are discussed below.

The first major change is based, in part, on the SSRCR and on comments received on the IUOE petition. The proposed rule requires at least two radiographers or a radiographer and an individual who has met, as a minimum, the requirements to be a radiographer's assistant to be present any time radiographic operations occur outside of a permanent radiographic installation. The staff believes that by requiring at least two qualified individuals to always be present when radiographic operations are being conducted, there will be a significant increase in assurance that operational safety measures and emergency procedures will be implemented effectively. The expectation is that violations that involve failures to perform adequate radiation surveys, failures to adequately post and monitor the restricted area, and failures to lock and secure the camera when not in use will become less frequent. Furthermore, if an incapacitating injury to a radiographer should occur at a remote location, the presence of a second individual could be an important factor in preventing unnecessary radiation exposures.

The use of at least two qualified individuals is already implicitly required under current NRC regulations for any situation where a single radiographer could not maintain direct surveillance of the operation to protect against unauthorized entry into a high radiation area. Most licensees use radiographers' assistants to fulfill this function. This proposed rule may require licensees to hire additional employees for those jobs where they are not currently providing additional qualified staff to maintain adequate surveillance. Other options would be changes in staff assignments or work schedules to accommodate the new requirement. However, because of the potential for high costs to some licensees, the proposed rule includes a discussion of the use of the exemption provision to allow some flexibility for special circumstances. Furthermore, the Federal Register Notice requests proposals for alternatives to the two-person requirement and also requests specific comment on the costs identified in the draft Regulatory Analysis.

As the draft Regulatory Analysis (Enclosure 3) indicates, the estimated cost for the adoption of this provision in the proposed rule may be quite high. While a number of Agreement States have already adopted similar requirements, the staff has not been able to determine the actual costs associated with these provisions. However, the estimates used in the draft Regulatory

Analysis are believed to reasonably reflect the potential burden on licensees and are based on information supplied by the regions as to the percentage of licensees not currently using two individuals. The Federal Register Notice specifically solicits input from small entities on the potential impact of adopting these requirements and on how the proposed requirements could be modified to lessen any impact.

This action would constitute a partial granting of the IUOE petition. Although the IUOE petition included a provision that the second individual could be a radiographer or a trainee, the staff has not adopted this provision in the proposed rule. The term "trainee" is used by the State of Texas and means an individual who has received a specific 40 hour training program. This is the same training required to become a radiographer. A number of commenters on the petition indicated that in many cases the trainee is an unskilled individual who may or may not achieve radiographer status and, therefore, expending resources on 40 hours of training may not be financially feasible for them. The proposed rule language retains the use of the term radiographer's assistant and permits use of a radiographer and an individual who meets, at least, the requirements of a radiographer's assistant to fulfill the requirement for two individuals. By describing the second individual in such a manner an Agreement State could use a "trainee" to fulfill the requirement for the second person.

The second major modification addressed in the proposed rule would require mandatory certification for radiographers. In March 1991, the Commission issued a revision to Part 34 to allow licensees to provide evidence of radiographer certification by the American Society for Nondestructive Testing (ASNT) in lieu of submitting descriptions of a radiation safety training program, however, only 300 radiographers have applied for certification since this program was initiated. The intent of establishing mandatory certification is to set up consistent standards by independent certifying organization (although ASNT is the only one at this time) and Agreement States. The proposed rule includes an Appendix A which would specify the requirements for both independent organizations and Agreement States to become certifying entities.

Since radiography is a mobile industry where radiographers frequently work in multiple States during a given year, moving in and out of NRC jurisdiction, a national certification program should bring some uniformity to the field and assist in upgrading the training program for these individuals. The State of Texas, for example, has required a state administered examination of radiographers since 1988. Data on overexposures in Texas indicates that overexposures have dropped since these requirements were instituted (although other safety enhancements issues at the same time have also contributed to the improvement in safety).

A third major modification in the proposed rule involves requirements for a Radiation Safety Officer (RSO) and was adopted from the Texas regulations. The RSO is the key licensee individual charged with the responsibility to ensure that the requirements in the license are followed. The proposed rule

use the survey meter to confirm that the source is secured. The staff did not adopt this recommendation on the basis that the alarm ratemeter has proven to be effective in warning radiographers when they have failed to verify source location with a survey meter.

- 4) Several States objected to the proposed allowance for an individual to return to work once his/her pocket dosimeter has been found to be off-scale for reasons other than radiation exposure (i.e., the pocket dosimeter was dropped). There may be cases where an unreasonable burden would result by preventing a radiographer from returning to work when a determination can be made that no overexposure occurred, so the staff has not changed the proposed rule.

#### RESOURCES:

The staff believes that the resources required to implement this proposed rule would not involve any resource adjustments to the NRC Five-Year Plan. NRC's industrial radiography licensing and inspection programs should remain essentially the same. While NRC's radiography licensees would be expected to revise their procedures to implement the revised or new requirements, licensees would be permitted to wait until their next renewal to submit the revised procedures to NRC for review. In the interim, NRC inspection staff would confirm, as part of its regular inspection activity, that licensees had implemented the revised regulatory requirements. There may be a slight increase in time required to conduct license reviews and inspections; however, the staff believes that the resources required should be minor and can be accounted for within existing resource allocations.

#### RECOMMENDATION:

That the Commission:

1. Approve the Notice of Proposed Rulemaking for publication (Enclosure 2) for a 90-day public comment period.
2. Note:
  - a. That the rulemaking would be published in the Federal Register for a 90-day public comment period;
  - b. That a draft Regulatory Analysis will be available in the Public Document Room (Enclosure 3);
  - c. The staff has prepared an environmental assessment (Enclosure 4). The assessment concludes that the action will not significantly affect the quality of the human environment;
  - d. That in accordance with the Regulatory Flexibility Act, an initial regulatory flexibility analysis has been prepared, the summary of which can be found in Appendix A to the notice. The analysis indicates that this rule could have an economic impact on radiography licensees. Approximately 90% of these licensees are considered to be "small entities." The estimated costs are not

Commissioners' comments or consent should be provided directly to the Office of the Secretary by COB Wednesday, December 8, 1993.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Wednesday, December 1, 1993, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

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