

# NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555

APR 27 1992

MEMORANDUM FOR:

Guy A. Arlotto, Deputy Director, Office of Nuclear Material

Safety and Safeguards

Carlton C. Kammerer, Director, Office of State Programs

FROM:

C. J. Heltemes, Jr., Deputy Director for Generic Issues and

Rulemaking, Office of Nuclear Regulatory Research

SUBJECT:

REVISION OF 10 CFR PART 34

The purpose of this memorandum is to request your concurrence on the extent and substance of a rulemaking in preparation to revise 10 CFR Part 34, "Licenses for Radiography and Radiation Safety Requirements for Radiographic Operations."

1. Title: Revision of 10 CFR Part 34

2. RES Task Leader: Donald O. Nellis (X23628)

 Cognizant Individuals: NMSS: Bruce Carrico GPA: Lloyd Bolling

- Requested Action: Review and/or concurrence on enclosed Issues Paper and Additional Items.
- Requested Completion Date: May 11, 1992
- 6. Summary: By memorandum dated January 3, 1991, the Office of Nuclear Material Safety and Safeguards requested an overall revision of 10 CFR Part 34 to remove ambiguities and to make the new regulation more compatible, as appropriate, with Part E of the Conference of Radiation Control Program Directors, Inc., "Suggested State Regulations for Control of Radiation," and Part 31 of the Texas radiation safety regulations.

By SRM dated February 15, 1991, and subsequent memorandum dated April 25, 1991, the Commission directed the staff to undertake an overall revision to 10 CFR Part 34. The revision would clarify the requirements in Section 34.27 and bring Part 34 more in line with the regulations outlined in the previous paragraph. Further, the staff was encouraged to work closely with the states, particularly those that have taken an active role in the radiography issue.

On March 6, 1991, staff members from NMSS and RES met to map out a strategy for drafting the proposed revision. This included soliciting comments from the NRC regional offices, Agreement States, and some radiography equipment manufacturers and radiography licensees in order to supplement the recommendations of NMSS. A task force of staff members from RES, NMSS and GPA was formed to assess and prioritize the comments and select those appropriate for incorporation in the proposed 10 CFR Part 34 revision. Of the many issues addressed, 10 were considered to have a major impact in terms of perceived safety benefits and costs. These were discussed in an Options Paper which was later changed to an Issues Paper when it became clear that in many of these issues, there were no options.

An Issues Paper containing what are considered the 10 major issues is included as Enclosure 1. The Issues Paper should not be considered a regulatory analysis, but rather a delineation of major issues with recommendations on how to resolve them. It has been drafted to allow cognizant offices to voice their opinions and concerns on these issues and on their suggested resolution.

The other items addressed by the task force and suggested for inclusion in the proposed Part 34 revision but which did not appear to be major issues have been included as additional items for consideration and are presented in Enclosure 2. They are grouped into three categories:

- (i) Those that could have a significant economic impact on licensees
- (ii) Those that may require significant language change and/or additional language in Part 34
- (iii) Those that should have neither a significant economic impact nor require significant language changes

In addition to the above, the proposed revision of 10 CFR Part 34 was one of the topics of discussion at the All Agreement States Meeting in Sacramento, CA in October 1991. Comments, responses and questions from this meeting are presented in Enclosure 3.

We are requesting that you review the enclosed Issues Paper, list of Additional Items, and Agreement State comments, which outline the extent and substance of the proposed revision to 10 CFR Part 34. Please provide us with your suggestions and comments by the date requested above. In particular, please indicate your views on the suggested staff approach to each of the 10 issues, and which if any, of the items listed in Enclosures 2 and 3 should be included in this rulemaking. We will not include in the final rulemaking any

requirements beyond those recommended in Enclosure 1 or for which "yes" is indicated in Enclosure 2 unless a clear justification has been provided which demonstrates that the benefits outweigh the cost. It should be noted for this review that the language and direction proposed in both the Issues Paper and Additional Items are open to modification in the final revision that is to be published for codification. We would be glad to meet with your staff to discuss any questions and concerns regarding this proposal.

## Original Signed by:

C. J. Heltemes, Jr., Deputy Director for Generic Issues and Rulemaking Office of Nuclear Regulatory Research

#### Enclosures:

1. Issues Paper

2. Additional Items for Consideration

3. Comments from All

Agreement States Meeting

cc: H. L. Thompson, Jr., EDO

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## ALL AGREEMENT STATES MEETING OF 1991

#### General Session

#### 10/27/91

#### Comments, Responses and Questions

## Revision of Part 34 - Radiography

- Permanent Radiographic Installations (pp 31-34)
  - We support a clearer definition on the permanent facility. It is a serious potential problem.
  - I defy you, in many cases, to determine whether they have a permanent facility.
  - 3. (<u>The definition</u>) - "ought to eliminate situations where an operation is taking place at one plant, essentially the same area, but they're rolling the source out and then rolling it back in and then rolling it back out. These ought to be eliminated, by the definition."
  - 4. You have to be very careful when you specify sufficient shielding for a radiography cell that may be used primarily with iridium-192 but may also be used a few times a year for cobalt-60. Use words that will include all possibilities.

- 5. Since most Part 34 items become pretty much a matter of verbatim compatibility for the Agreement States and since a lot of States regulate X-ray radiography and in some cases, accelerator radiography, I would recommend that whatever is developed by NRC be routed through appropriate working groups within the CRCPD at an early stage because they might have input on additional areas that the states would have to regulate.
- Two-person Radiography Crews (pp 36-37)
  - Louisiana has required two-person crews since 1980. (Note! \_\_\_\_ a
    radiography trainee is not considered to be part of the two-person
    crew under any circumstance. If present, he or she is a third
    person.)
  - 2. NRC licensed or other Agreement State licensed radiography companies that come into Louisiana under reciprocity are required to use two-person crews while in the state.
  - 3. We certainly endorse the concept.
- Utilization Logs (pp 37-39)
  - Don't think that requiring radiographers' signature on the utilization log would be effective.
  - 2. Recommend instead, that more field inspections be done and impose civil penalties for infractions directly on the individual responsible.

- Radiographer's assistants have little or no training. Texas requires 40 hours safety training, and they can only work with radiographer trainers. (They are called trainees instead of assistants in Texas.)
- Require a Minimum of two Survey Instruments (pp 39-48)
  - Think that main problem is the issue of training and not instruments.
  - 2. If people are doing the transportation check, they should have noticed that the survey meter was not working then. Another check is not needed. (NRC does not require a transportation check such as Texas regulation 31.33(h).)
  - 3. Training is the real issue. You could require 30 instruments and still have the same problem if the radiographers do not have an understanding of why they need one that works.
  - 4. Operability checks prior to departure to a temporary job site are not all that valid. You need operability checks throughout the day because these instruments quit working rather abruptly.
  - "Departure" does not mean anything. Some crews depart Oklahoma in May and don't get back to Oklahoma till December.
  - 6. My experience during a few hundred inspections was not that the instrument was not operating because it malfunctioned, but because it was in the truck. It worked fine when you turned it on.
  - 7. Texas and Louisiana pushed hard for a form of certification and a certification card for a number of reasons including (6) above.

- That way, inspectors could pull the certification card and stop operations that were violating the rules.
- 8. I think you should have your inspectors tell persons in the field (that don't have an operable survey instrument, etc.) that continued operation will be viewed as a willful violation and urge voluntary suspension of operations.
- Specification of Training for Person in Charge (pp 48-52)
  - I understood that the principle responsibility of the Radiation Safety Officer (RSO) is to be in a position to commit the company financially. Your requirement will remove this ability to commit the company in many cases.
  - If you require additional training for the RSO, then you have to look at the impact on the licensee and the RSO if they are required to go somewhere to get the training.
  - 3. In Texas, commercial training courses are agency approved. On the additional experience for the RSO and the potentially additional training, we are glad to see that the NRC is trying to maintain compatibility with Texas.
  - 4. The way it is done now in Texas, is to take a radiographer trainer (a qualified radiographer with at least 1 year of experience and designated on the license) look at the additional training and the training program at the licensee's facility and designate the person to be the RSO on the license.

- Radiographers Assistants Receive Little Personal Supervision (pp 52-54)
  - 1. Might be a good approach to phase out assistants and use radiographer trainees with the additional training requirements used as in Texas and Louisiana. Now assistants do all the work and are not well paid, and many don't advance to become radiographers.
  - 2. Another point is that if the radiographer trainee concept is adopted, there should be some time limit on how long one can work as a trainee before becoming a radiographer. After some reasonable time (to be determined), you should be out of the radiography business if you don't advance to radiographer.
- Current Regulations don't Require Inspection of Control Cables, etc.
   (pp 54-55)
  - While this is a requirement in Texas regulations, it is also found elsewhere but I can't recall where.

#### ADDED COMMENTS

- p 56

  1. Canada is considering restricting hours of work for radiographers. Many get pushed to do tremendous amounts of overtime and that is where many of the incidents occur.
- pp 57-60 1. It might be real good to have a fitness-for-duty consideration for radiographers.

2. One reason why public health and safety is a major issue with radiography is that most of it is not practiced under the immediate control of the licensee. At field locations a radiographer with a little bit of a buzz on, may not be as cautious as he should be, as he is in a hurry to get back to his hotel and crash. Fitness-for-duty should be made part of the regulations and part of the license and make companies responsible for their bad actors.

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