## SARGENT & LUNDY ENGINEERS

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PR-20 (2) (45 FR 18023)

Secretary of the Commission Docketing and Service Section U. S. Nuclear Regulatory Commission Washington, D. C. 20555

Dear Sir:

Enclosed are our comments on the proposed rule change to 10CFR20 as noticed in the March 20, 1980 Federal Register.

We appreciate having been given the opportunity to comment.

Yours very truly,

J. S. Loomis, Head Nuclear Safeguards & Licensing Division

JSL:MEJ:ep Enclosure Copies: R. F. Janecek (1/1) G. P. Wagner (1/1) NSLD File: 1B-4 (1/1)

ACKNOW BOOK BY ONG . 5/9/20 mdv ...

1.4.1, 1.20

9 1980 Office of the Secretary

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### Sargent & Lundy Comments on Proposed 10CFR20 Rule Change as Noticed in the March 20, 1980 Federal Register

The comments below follow the notation of the March 20, 1980 Federal Register Advanced Notice of Proposed Rulemaking.

#### I. ESSENTIAL ELEMENTS

### a. Radiation Protection Principles

A legal endorsement of the linear hypothesis should not be made. A clear statement that the linear hypothesis has been assumed in deriving certain standards should be made.

- (1) The requirement to demonstrate a net positive benefit will result a priori as a result of any radiation exposure will be at best difficult, at worst impossible. This could stymie both the nuclear power industry and medical applications.
- (2), (3), (4) No comment.

### b. Standards for Individual Occupational Exposures

- (1) No comment.
- (2) Specific consideration for "women in general" is completely unwarranted.
- (3) Controls for transient workers would be difficult to enforce. The responsibility for assuming the "postulated added risk" should be with the individual. After all he was informed per Item I.a(4), above.
- (4) No comment.
- (5), (6) This effect is long overdue and will provide for flexibility in operations and license to perform necessary vital actions in emergency situations. This of course raises the question, how are "planned special exposures" and "emergency exposures" to be quantified and made justifiable in the regulations. Would a priori approval be required by a regulatory body?

## c. Standards for the General Public

General comment...what are "specific population groups"?

(1) Would these limits supersede 40 CFR part 190 limits, which are already law?

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- (2) Would these limits supersede 10 CFR part 50, Appendix I limits, which are already law?
- (3), (4) No comment.
- (5) This is a good point. TMI-2 experience has shown that in the post-accident period, because of public demand, a plant must suddenly become a zero release plant which makes recovery more difficult.
- (6), (7) No comment.
- (8) This is a good point which could relieve some of our solid waste inventory problems without causing any adverse environmental impact.

## d. Radiation Protection Programs

No comment.

e. Record Keeping

No comment.

f. Reporting

No comment.

# II. PART 20 IMPROVEMENTS

- a. Radiological Protection Principles
  - (1) This is a noble effort, but is 10 CFR 20 the place for such an educational treatise?
  - (2) Quantitative ALARA guidelines for occupational radiation exposure are difficult to deduce as evidenced by AIF-sponsored studies.

# b. Individual Standards

- (1) No comment.
- (2) The goal is a good one but enforcement (or demonstration that intakes have been exceeded) may be difficult. Expanded bioassay programs would be required to demonstrate limits were not exceeded.
- (3) Agree, as noted in I.b(5)(6) above.
- (4) Implementation would be difficult.
- (5) Delete "women in general".
- (6) See comment I.b(3) above.

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## c. General Public Standards

- (1) This is already considered in Appendix I to 10 CFR 50.
- (2) No comment.
- (3) Delete "women in general".
- (4) Agree. See coment on I.c(5) above.
- (5) No comment.

# d. Radiation in Protection Programs

No comment.

# e. Reporting Requirements

No comment.

## f. Miscellaneous

- (1) Adoption of SI units will offer further confusion in the radiation protection field. The present adoption of SI units will undoubtedly be in conflict with the goals of II.a(1), i.e., making 10 CFR 20 "understandable to laymen."
- (2) No comment.
- (3) This is a good point. Too much of the background of ICRP-2 and various FRC reports is undocumented.