

STATE OF ILLINOIS
DEPARTMENT OF NUCLEAR SAFETY

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Jim Edgar
Governor

Thomas W. Ortziger
Director

August 10, 1993

Carlton Kammerer, Director
Office of State Programs
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: RESPONSE TO ALL AGREEMENT STATES LETTER (SP-93-094)

Dear Mr. Kammerer:

The Illinois Department of Nuclear Safety (Department) hereby submits its comments on the above-identified Agreement States Letter. The All Agreement States letter requests comments on the draft proposed rule language.

The Department generally supports the proposal. We strongly advocate deleting the concept of the "controlled area" from the proposed rule. In fact, the Department's proposed rule "Standards for Protection Against Radiation," 32 Ill. Adm. Code 340, does not include the concept of the "controlled area." Accordingly, we agree with change number 1, 5, 6, 7, and 8.

With regard to proposed change number 2, we recommend changing the definition of "member of the public" to read as follows:

"Member of the public" means any individual, except an individual who is performing assigned duties for the licensee involving exposure to sources of radiation.

This definition does not rely on the definition of occupational dose which also needs to be changed. Under NRC's proposed definition, someone receiving a radiation dose from naturally occurring or accelerator-produced radioactive material or x-ray machines during the course of his employment is a member of the public. For example a doctor or nuclear medicine technologist using radium or machine-produced radiation would, under NRC's definition, be a member of the public. Under our suggested definition, these individuals would not be members of the public.



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With regard to proposed change number 3, we recommend changing the definition of "occupational dose" to read as follows:

Occupational dose means the dose received by an individual in the course of employment in which the individual's assigned duties involve exposure to sources of radiation. Occupational dose does not include dose received from background radiation, as a patient from medical practices, from voluntary participation in medical research programs, or as a member of the public.

The reason we suggest this wording is that NRC licensee's may engage in activities that are not licensed by the Commission, but which nevertheless result in radiation doses to workers. For example, in the hospital situation, if a licensee performed medical procedures that used I-125 and also performed procedures using radium, under the proposed NRC definition, only doses attributable to the I-125 would be occupational doses subject to the occupational dose limit specified in 10 CFR 20. Presumably, when determining compliance with 10 CFR 20, the licensee could subtract worker doses attributable to working with naturally occurring or accelerator-produced radionuclides or machine-produced radiation. This does not seem to reflect sound public health policy and is not in accordance with NRC's current regulations that control total dose from all sources. But even more importantly, if Agreement States are required, as a matter of compatibility, to adopt NRC's definition of "occupational dose," then the states will not be able to limit worker doses attributable to use of NARM or radiation producing machines.

With regard to change number 4, the Department suggests the following alternate definition of "Public dose."

Public dose means the dose received by a member of the public from sources of radiation from licensed operations. Public dose does not include occupational dose, or dose received from background radiation, as a patient from medical practices, or from voluntary participation in medical research programs.

The primary advantage of this definition is that it does not use the word "released." In the area of environmental regulation, there has been much argument about how one determines whether a "release" has occurred. For example, would constant radon emanation from a disposal site constitute a "release" of radiation or must a release be a sudden event? Further, if NRC's proposed definition is adopted, it appears that there is no public dose when a licensee has control of the radioactive material and it is not released but a member of the public is exposed. This is not a rare situation for field radiography. In addition, because NRC is proposing to make this definition an item of compatibility for Agreement States, we recommend that it be worded generally enough to cover operations that involve the use of naturally occurring or accelerated produced materials or radiation producing machines. We would be happy to review proposed language.

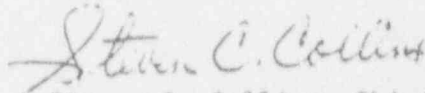
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With regard to proposed change number 9, we recommend that NRC retain the phrase "may enter the licensee's restricted area and." This phrase makes it clear that a licensee is not required to determine prior occupational dose for an individual who is not expected to enter the licensee's restricted area.

With regard to proposed change number 10, the Department suggests the NRC reconsider any change to the wording. The term "licensed activities" may be confusing. Further, the words "in the licensee's facility" seem to exclude individuals in temporary jobsite restricted areas because such areas are not in "the licensee's facility." A clerical worker, housekeeping staff member, and security staff member at a licensed medical facility are "in the course of employment" and need some instruction regarding dangers at the facility but are probably not "engaged in licensed activities".

The Department agrees, in concept, with the proposed revisions to 10 CFR 20. We have offered some suggestions which we feel improve the proposal. We do not agree with the proposed change to 10 CFR 19.12, since that change may raise more questions than it resolves. If you have any questions regarding these comments, do not hesitate to call me or Kathy Allen at (217) 785-9947.

Sincerely,



Steven C. Collins, Chief
Division of Radioactive Materials

SCC:ren

cc: Jim Lynch, State Agreements Officer