



U.S. Council for Energy Awareness

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OFFICE OF PUBLIC
DOCKETING

March 10, 1994

Secretary,
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

ATTN: Docketing and Services Branch

RE: Draft Proposed Rule - Radiological Criteria for Decommissioning

Gentlemen:

These comments are submitted on behalf of the Committee on Radionuclides and Radiopharmaceuticals, a subcommittee of the U. S. Council for Energy Awareness. The subcommittee is comprised of manufacturers of radiopharmaceuticals, life science research radiochemicals, and radioactive sealed sources utilized in medicine and quality and safety assurance. In addition to the privilege of having some of its members participate in regional workshops conducted by USNRC as part of its Enhanced Participatory Rulemaking on Radiological Criteria for Decommissioning of NRC-Licensed Facilities, the subcommittee is grateful for the opportunity to comment on this draft proposed rule. The following comments are submitted for your consideration.

General Comments

We agree with the proposal to use dose standards for determining the extent to which sites must be remediated at the time of decommissioning. Regulations should be developed which ensure protection of the public and the environment. The regulations must take the approach of using a standard which is based upon recommendations of expert scientific organizations such as the International Commission on Radiological Protection (ICRP) and the National Council on Radiation Protection and Measurements (NCRP). The standard should ensure that the public is adequately protected without unnecessary cost, either in terms of economic impact or exposure to non-radiological hazards.

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Comments on Specific Issues

1. Need for and Scope of Rule

We support NRC's plans to develop standards for radiological decommissioning. We are concerned that the EPA and NRC are both developing standards and urge the agencies to work together to conserve federal resources and develop one standard with the NRC or Agreement States responsible for enforcement.

2. Basis for Radiological Criteria

In setting a dose standard, the NRC should follow the recommendations of the ICRP and NCRP. We disagree with proposed position of the Commission that the dose limit should be a value which is a relatively small fraction of 100 mrem/y. The ICRP recommends a dose limit of 500 mrem/y for infrequent exposure of individuals who gain a benefit from this exposure. ICRP recommends a dose limit of 100 mrem/y for individuals who are continuously exposed without direct benefit.

We also disagree with the NRC draft position that allocation of the total dose limit recommended by ICRP to the decommissioning of a single facility would be inappropriate. ICRP has stated that the dose constraints for protection of the public should be applied to a critical group from a single source. The ICRP made a number of conservative assumptions in arriving at the 100 mrem/y limit for continuous exposure to offset the unlikely event that a member of the public may be exposed to more than one source.

In addition, the NRC's position that an additional margin of safety is needed in decommissioning scenarios, over the 100 mrem/y limit in 10 CFR 20.1301 afforded to members of the public from operating licensees, is unwarranted. The ICRP has already incorporated conservative assumptions in developing this limit. Whether or not the dose is controlled or uncontrolled, it is the actual dose that is of concern.

The 3 mrem/y objective below which no further ALARA efforts be considered is unreasonably low. Efforts to measure levels even higher than this would result

in significant cost without any commensurate benefit to the public well being. We agree that 3 mrem/y is within the variability of natural background across the U.S., but it is also indistinguishable from the dose from background radiation.

3. Individual vs Collective Doses

For a number of reasons, we agree that the standard be applied to the average member of the critical group. This has been recommended by the ICRP.

4. Statement of Radiological Criteria

The limits of 3 mrem/y and 15 mrem/y proposed by the Commission are unnecessarily low. In many cases, it will not be possible to achieve these levels, and the attempt to do so will result in unreasonable cost without benefit, while subjecting the public to other risks and hardships. Annual doses received from background sources could vary by the values of these limits at a specific location. As there is no epidemiological evidence for stochastic effects at even levels of permitted occupational exposure, any attempt to decontaminate to these levels or measure them is not justified.

5. Consistency and Compatibility

We applaud the NRC objective of enabling EPA to find an NRC rule adequate in providing protection for the public and the environment so that NRC and Agreement State licensees would be excluded from EPA cleanup standards. It is hoped this objective is achieved without a duplication of effort.

6. Finality

We agree with the draft position that decommissioning actions conducted under these standards will not need to be revisited under potentially more restrictive future standards.

7. Community Involvement

We understand the benefit of involving the local community in the acceptance of

decommissioning plans, for restricted use, that do not meet the standard. The proposal for licensees to establish a Site Specific Advisory Board appears to be a workable method to ensure community participation. However, the responsibility of the licensee to involve the full range of interests in the affected community should be limited to those parties expressing an interest in the proceedings at the time notices are promulgated.

8. Stability and Flexibility

We urge the use of a universal standard, based on a single dose level, which would enhance the ability of licensees to design new facilities which can be decommissioned to appropriate levels and to more accurately predict what decommissioning will cost.

9. ALARA Considerations

We strongly believe that non-radiological risks must be considered in determining the ALARA level for site remediation. These risks must be considered, not only in determining whether an ALARA objective has been met, but also in the development of a dose limit.

The proposed limit of 15 mrem/y represents a value which is not consistent with ICRP recommendations and likely to result in more societal harm than benefit.

10. Site Remediation

We agree with the NRC's view that the conduct of decommissioning activities should not be different from other operational activities licensed by the Commission.

11. Demonstrating Compliance

We urge the NRC to reconsider the guidance to small sites on practical means to demonstrate compliance with the standards. The draft report NUREG/CR-5849 is far too complex for most licensees. There is a significant need for guidance that is appropriate for the majority of licensed facilities. The regulation

should provide relief from complex compliance determination methodology for facilities which possess sealed sources and short-lived isotopes.

12. Sites which Cannot be Released for Unrestricted Use

Although we agree that there should be a provision in the proposed rule for facilities which cannot be decommissioned for unrestricted use, a lower limit for sites released for unrestricted use may not be appropriate. Whether the dose is received from a restricted or unrestricted source, it is the actual dose received that is of concern.

13. Waste Disposal

The potential lack of availability of LLW disposal facilities is a significant concern, not only with respect to radiological criteria for decommissioning. As the dose limit in the proposed rule approaches the levels received from sources of background radiation, the volume of waste and the cost of disposal of this waste increases significantly. This assumes there will be a disposal site available at the time of decommissioning. Basing action levels on ICRP recommendations would avoid a situation where disposal costs and site capacity are needlessly consumed by waste streams which pose no risk to the public.

14. Minimizing Generation of Waste

Although we agree with the position that licensed facilities should be encouraged to design and operate facilities in a way which minimizes the generation of waste and contamination, the motivation for such an initiative should not be unreasonable decommissioning standards which make it cost prohibitive to design, build and operate such facilities.

15. Radon

The NRC should not propose to establish a separate standard for radon.

16. Environmental and Social Considerations

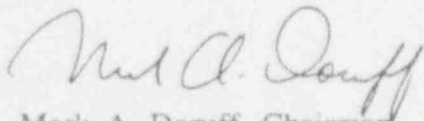
It is agreed that radiological criteria designed to protect public health should be adequate to protect the natural environment.

Additionally, it is extremely important to consider the cost of compliance with a standard, not only to the industry which is regulated, but also to society which the products of the industry serve. It is difficult, if not impossible, to appreciate the hypothetical benefit to mankind from limiting doses to levels indistinguishable from background. It is easy to imagine risk to a population, and the huge additional burden on an already extended health care system, of having to resort to surgical techniques if radiopharmaceuticals can no longer be used or manufactured. The ability to find cures for cancer and AIDS could be lost if research institutions could not obtain or use life science radiochemicals because the cost of compliance with needlessly restrictive regulations exceeds the income generated in this industry.

17. Recycle

We agree with the position that the Commission continue to consider release of material containing residual radioactivity for reuse or recycling on a case-by-case basis.

Sincerely,



Mark A. Doruff, Chairman,
Subcommittee on Decommissioning
of NRC Licensed Facilities
Committee on Radionuclides and
Radiopharmaceuticals