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*Original Regulation*

JOINT COMMITTEE ON  
ATOMIC ENERGY UNITED STATES  
ATOMIC ENERGY COMMISSION  
Washington 25, D. C.



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FOR IMMEDIATE RELEASE  
(Friday, January 25, 1957)

### AEC ISSUES EFFECTIVE REGULATION ON STANDARDS FOR PROTECTION AGAINST RADIATION

The Atomic Energy Commission today issued a regulation, effective February 28, 1957, establishing standards for the protection of atomic energy workers and the public against radiation hazards arising from activities licensed by the Commission.

The regulation was first published in July 1955 as a proposed rule. It has since been submitted for comment to many interested persons and organizations, including state governors and state health and labor commissioners, and the Commission has had the benefit of numerous comments and suggestions. An Advisory Committee of State Officials, appointed by the Commission, has twice met in Washington to consider and comment on the regulation.

The Commission will continue to work closely with the states to seek their advice and keep them informed of Commission action in the health and safety field and, when they request, to advise and assist the states on their related regulatory programs.

Standards are set up in the regulation for the handling of all radioactive materials subject to Commission licensing - special nuclear materials such as uranium 233 and uranium 235, source materials such as natural uranium and thorium, and by-product materials (radioisotopes). Limits are prescribed governing exposure of workers to external radiation, concentrations of radioactive material which may be discharged into air and water, and disposal of radioactive wastes.

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Other provisions of the regulation include requirements for surveys of radiation hazards by licensees, monitoring of workers, caution signs, labels, and signals, storage of licensed material and instruction of workers on safe procedures for handling and using licensed materials.

Permissible limits, which except for minor changes are the same as those contained in the earlier proposed regulation, agree substantially with the current recommendations of the National Committee on Radiation Protection in NBS (National Bureau of Standards) Handbook 52 "Maximum Permissible Amounts of Radioisotopes in the Human Body and Maximum Permissible Concentrations in Air and Water" and NBS Handbook 59 "Permissible Dose from External Sources of Ionizing Radiation."

The National Committee on Radiation Protection has under review recommendations to limit cumulative exposures over periods of years. The Commission is giving consideration to appropriate amendments to its regulations to deal with this cumulative exposure problem.

It is believed, on the basis of present knowledge, that the standards provide an adequate margin of safety for exposed persons. It is emphasized, however, that the standards are subject to change with the development of new knowledge, with significant increase in the average exposure of the whole population to radiation, and with further experience in administration of the regulatory program.

The regulation issued today applies only to activities licensed by the Commission. It does not cover radiation sources such as X-ray and radium. One of the purposes of the regulation, however, is to assure that exposures to radiation from licensed material, when added to exposures from unlicensed radiation sources possessed by a licensee, such as X-ray and radium, do not exceed the permissible limits.

Principal changes since the regulation was first published as a proposed rule are:

- a. The provision (Section 20.101) permitting a licensee temporarily to exceed

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normal exposure limits to a limited extent are liberalized by eliminating the requirement of prior Commission authorization. The additional exposure is more than compensated for by a requirement that the 13-week (quarterly) dose be held to 10 times the permissible weekly dose rather than 13 times as provided in the proposed rule.

b. Section 20.13 of the proposed rule limiting the allowable concentration of radioactive materials on surfaces has been deleted. This is done on the basis that the real hazard is created by airborne material, and this hazard is satisfactorily controlled in other Sections of the regulation.

c. Section 20.16 of the proposed rule entitled "Emergencies" has been eliminated. A new Section 20.105, "Measures to Be Taken After Excessive Exposures," requires a licensee, after exposure of one of his workers in excess of the limits established in the regulation, to limit further doses or exposures of the worker to 10% of the permissible limit until the average dose or exposure comes within the permissible limit.

d. Section 20.23 of the proposed rule entitled "Respiratory Protection", covering the use of protective masks, has been deleted. Licensees are required to protect their workers from airborne activity, and it is believed desirable to allow flexibility in the procedures used to give the required protection.

e. The waste disposal sections have been expanded to set forth minimum requirements applicable to the majority of users, particularly small users and those whose

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problems are least complicated. For those who have special disposal problems, the method of obtaining Commission approval of their proposed procedures is described.

Attached is a copy of the regulation - 10 CFR (Code of Federal Regulations) Part 20 "Standards for Protection Against Radiation."

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