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UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

DOE ARCHIVES

January 22, 1971

Chairman Seaborg
Commissioner Ramey
Commissioner Johnson
Commissioner Larson
Commissioner

THRU: *for* General Manager *Donald C. Kull*

NCRP PRESS CONFERENCE

The enclosed material will be distributed at the
press conference scheduled by NCRP at 10 a.m.,
January 26.

A handwritten signature in cursive script, reading "John A. Harris", is positioned above the typed name.

John A. Harris, Director
Division of Public Information

Enclosures:

1. NCRP Press Release
2. NCRP Background Information

Our review of the current knowledge of biological effects of radiation exposure provides no basis for any drastic reductions in the recommended exposure levels despite the current urgings of a few critics," said Lauriston S. Taylor, of Washington, President of the NCRP. Dr. Taylor was one of the three spokesmen for the NCRP at a press conference held to announce a new Council report, NCRP Report No. 39, Basic Radiation Protection Criteria. Also speaking at the press conference were H.M. Parker, of Richland, Washington, Chairman of the NCRP scientific committee responsible for the preparation of the report and V.P. Bond, of Brookhaven, New York, a member of the scientific committee.

limit of 0.17 rem per person averaged over the population will continue. The rem and roentgen (R) are radiation units.

The new recommendations lower the permissible exposure levels in a number of specific instances including the occupational exposure of pregnant women. Lower levels are also specified for exposure of the thyroid gland and parts of the skin. The report also includes new dose limits for exposure of individuals working in radiation accidents or emergencies. Exposure levels for families of patients containing radioactive materials are also specified.

Regarding the occupational exposure of fertile women, the Council's recommendations specify that, "During the entire gestation period, the maximum permissible dose equivalent to the fetus from occupational exposure of the expectant mother should not exceed 0.5 rem" (page 92).

Commenting on the basis for this recommendation, Dr. Bond stated, "There has been considerable controversy over the data on the biological effects of exposure of the fetus. Some of this data comes from studies of the effects of fetal irradiation incurred in pelvimetry (x-ray study of the pelvis). At present, one cannot say definitely that such fetal irradiation is capable alone of producing an increased incidence of cancer or leukemia, but, on the other hand, we cannot say that lesser exposure is incapable of causing these effects. Thus, the Council had only one course open to it and that was to make the conservative assumption that the low doses associated with pelvimetry are capable of producing increased incidence. This led to the recommendations restricting exposure of the fetus."

In the chapter on specific radiation effects, the new report deals with the induction of thyroid tumors by irradiation stating, "Only in the case of thyroid tumors is the evidence more than suggestive. Recent studies of the Marshallese [Marshall islanders] have shown the thyroid to be probably more sensitive than previously considered. A significant increment in the incidence of these tumors has been reported where x irradiation of the thymus gland and surrounding areas of the body of infants has been administered in exposures of the order of 200 R and higher" (page 38).

In connection with radiation exposure to others from patients who have been given radioactive materials, the new report summarizes the very detailed recommendations on this topic set out in NCRP report No. 37 which was published in 1970. The new report states (page 103):

"The exposure of hospital patients to radiation from adjacent patients containing radionuclides should be kept to a practicable minimum. The dose equivalent attributable to this radiation should not exceed 0.5 rem during a single hospital admission. It is considered unlikely that more than one such hospital admission will occur in any one year.

"There may be some relatively rare and unusual situations where it would be necessary or highly desirable to send a patient home in spite of his carrying a burden of radioactive material that could result in a dose to other persons in excess of 0.5 rem in one year. Such cases may be permitted, as exceptions provided that:

"(1) No person under age 45 shall be permitted to receive a dose in excess of 0.5 rem in a year.

"(2) No person over age 45 should be permitted to receive a dose in excess of 5 rems in a year.

"(3) The circumstances leading to the decision to make an exception, the evaluation of the exposure conditions and the means of controlling individual exposure shall be documented.

"(4) The local health authorities should be notified of the action."

that there is little need for concern over exposure at the levels recommended in the report, Dr. Taylor said. "Nevertheless, it is the Council's position

to encourage protection practices that are better than any prescribed minimum level and this position is evidenced by the requirement that radiation exposure be kept at a level as low as practicable."

"In each case, the lowest practicable level must be established in the best balanced interests of appropriate combinations of employers, employees, practitioners of the healing arts, their patients and their aides, and the general public." The President of the NCRP said, "Ultimately, realistic interpretation in various applications derives from public understanding

of, and eventual approbation of, practices developed from recommendations of responsible technical bodies. In particular, it is believed that while exposures of workers and the general population should be kept to the lowest practicable level at all times, the presently permitted exposures represent a level of risk so small compared with other hazards of life, and so well offset by perceptible benefits, that such approbation will be achieved when the informed public review process is completed," he concluded.

exists known as the National Committee on Radiation Protection and Measurement and was formed in 1964 to carry on the work begun by the Committee in 1929. The work of the Council is carried out by 65 members (see attached list) and 150 participants serving on the 36 scientific committees of the Council. The members and participants are drawn from all the many disciplines that contribute to our understanding of the effects of radiation on man, and to the application of this knowledge in the formulation of recommendations on radiation protection and measurement. These include biology, physics, chemistry, radiology, genetics, pathology, mathematics, dentistry, veterinary medicine and many others. The resulting diversity of viewpoints is valuable in the Council's efforts to develop recommendations representing the consensus of leading scientific opinion. Members and participants in the Council's program voluntarily contribute their services in support of the Council's objectives. Their ability and experience represent the cornerstone of the Council's program.

...ing ... knowledge and experience in the particular area of interest, examines the situation in detail and drafts proposed recommendations. These are then submitted to the Council members for careful review before being published. Frequently, the recommendations point out areas in which important data are missing and stimulate research which contributes again to the body of available information.

While the Council does not itself conduct any laboratory research, it has access to research programs throughout the United States and, in fact, the world through the more than 200 scientists participating in its program. In drafting NCRP recommendations, the Council's scientific committees review the current status of research in all fields related to the task of the committee. With Council members chosen from all the many scientific fields related to radiation protection and measurement, the NCRP is in a position to maintain cognizance of the developments in all of these fields.

How are the Council's Projects Funded?

The Council's activities are made possible by the voluntary contribution of the time and effort of its members and participants, and the generous support of various organizations interested in radiation protection and measurement. It is also supported by contributions from professional and scientific organizations concerned with radiation protection and measurement, by foundation and government grants, and by contracts with various government agencies. The Council has an established policy of maintaining diversity in its sources of funds.

Environmental protection and measurement can constitute a contribution to the public welfare. The Council will continue to be alert for areas where expanding technology brings forth new requirements for information and recommendations.

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