```
1-22-10
```

```
Asst. GM for MA

Asst. GM for Dev. & Prod. 1 Oak Ridge Operations

Asst. GM for Operations 1 Richland Operations

Asst. GM for Plans 1 San Francisco Operations

Asst. GM for Reactors 1 Savannah River Operations

Asst. GM for R&D 1 Chairman, AS&LBP
```



## UNITED STATES ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

January 22, 1971

Chairman Seaborg Commissioner Ramey Commissioner Johnson Commissioner Larson Commissioner

THRU: feneral 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.

John A. Harris, Director Division of Public Information

Enclosures:

1. NCRP Press Release

2. NCRP Background Information

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, <u>Basic Radiation Protection Criteria</u>. 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 indicence 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 senstive 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."

level and this position is evidenced by the requirement that radiation exposure be kept at a level as low as practicable."

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.

cherses 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 These include biology, physics, chemistry, radiology, measurement. genetics, pathology, mathmatics, 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.

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.

- 10 -

## 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.

the public welfare. The Council will continue to be alert for areas where expanding technology brings forth new requirements for information and recommendations.

and Genetics Zoology Research Building 1117 West Johnson Street Madison, Wisconsin 53706

Edward L. Alpen
Manager, Environmental &
Life Sciences Division
Battelle Northwest Laboratories
P.O. Box 999
Richland, Washington 99352

E.C. Barnes
Director, Radiation Protection
Westinghouse Electric Corporation
3 Gateway Center, Box 2278
Pittsburgh, Pennsylvania 15230

Merrill A. Bender Chief, Department of Nuclear Medicine Roswell Park Memorial Institute 666 Elm Street Buffalo, New York 14203

Victor P. Bond Associate Director Brookhaven National Laboratory Upton, L.I., New York 11973

Frederick J. Bonte Chairman, Dept. of Radiology University of Texas Southwestern Medical School 5323 Harry Hines Blvd.

Carl B. Braestrup Box 447 Guilford, Connecticut 06437 university or rennsylvania 3400 Spruce Street Philadelphia, Pennsylvania 19104

Reynold F. Brown
Office of Environmental Health
and Safety
University of California
San Francisco Medical Center
1344 Third Avenue
San Francisco, California 94122

Austin M. Brues
Division of Biological and
Medical Research
Argonne National Laboratory
Argonne, Illinois 60440

John C. Bugher [Deceased]

William W. Burr, Jr. Chief, Medical Research Branch Division of Biology and Medicine U.S. Atomic Energy Commission Washington, D.C. 20545

Leo K. Bustad Director, Radiobiology Laboratory University of California, Davis Davis, California 95616

George W. Casarett
Department of Radiation Biology
University of Rochester
School of Medicine
P.O. Bos 287, Station 3
Rochester, New York 14627

Randall S. Caswell
Deputy Director of Center for
Radiation Research
National Bureau of Standards
Washington, D.C. 20234

Richard H. Chambe in
Director, Department of Radiology
Hospital of the University of
Pennsylvania
3400 Spruce Street
Philadelphia, Penna. 19104

Cyril L. Comar Head, Department of Physical Biology New York State Veterinary College Cornell University Ithaca, New York 14850

Frederick P. Cowan Head, Health Physics Division Brookhaven National Laboratory Upton, L.I., New York 11973

Charles L. Dunham
Chairman of Division of Medical
Sciences
National Adademy of Sciences
2101 Constitution Avenue, N.W.
Washington, D.C. 20418

Merrill Eisenbud
New York University Medical
Center
Institute of Environmental
Medicine
550 First Avenue, Room 559
New York, New York 10007

Thomas S. Ely Laboratory of Industrial Medicine Kodak Park Division Eastman Kodak Company Rochester, New York 14650

Robley D. Evans
Department of Physics
Massachusetts Institute of
Technology
Room 6209, 77 Massachusetts Avenue
Cambridge, Massachusetts 02139

Titus C. Evans Head, Radiation Research Laboratory College of Medicine University of Iowa Iowa City, Iowa 52240 Mr. D Fleckenstein,
Consultant, Industry Codes &
Standards
General Electric Company
1 River Road, Bldg. 36-511
Schenectady, New York 12305

Richard F. Foster
Senior Research Associate
Environmental and Life Sciences
Division
Battelle Northwest
P.O. Box 999
Richland, Washington 99352

Robert O. Gorson Stein Research Center Department of Radiology Jefferson Medical College 920 Chancelor Street Philadelphia, Penna 19107

William T. Ham, Jr.
Department of Biophysics
Medical College of Virginia
Health Sciences Division
MCV Station Box 877
Richmond, Virginia 23219

John W. Healy H-1, University of California Los Alamos Scientific Laboratory P.O. Box 1663 Los Alamos, New Mexico 87544

John M. Heslep Chief, Environmental Health and Consumer Protection Program State Department of Public Health 2151 Berkeley Way Berkeley, California 94704

John S. Laughlin
Department of Medical Physics
Memorial Hospital
444 East 68th Street
New York, New York 10021

George V. LeRoy
Director of University Health
Services and Professor of Medicine
The University of Chicago
950 East 59th Street
Chicago, Illinois 60637

Charles W. Mays
College of Medicine
Department of Anatomy, Radiobiology
Division
University of Utah
Salt Lake City, Utah 84112

Dade W. Mocller
Associate Director
Kresge Center for Environmental
Health
Harvard University School of Public
Health
665 Huntington Avenue
Boston, Massachusetts 02115

Karl Z. Morgan Director, Health Physics Division Oka Ridge, Tennessee 37831

Russell H. Morgan
Department of Radiological Science
Johns Hopkins School of Hygiene &
Public Health
615 North Wolfe Street
Baltimore, Maryland 21205

Robert D. Moseley, Jr. Department of Radiology University of Chicago 950 East 59th Street Chicago, Illinois 60637

Robert J. Nelsen American College of Dentists 7316 Wisconsin Avenue Bethesda, Maryland 20014

Eugene F. Oakberg Biology Division Oak Ridge National Laboratory P.O. Box Y Oak Ridge, Tennessee 37831 Hert M. Parker
Battelle-Northwest
P.O. Box 593
Richland, Washington 99352

Edith H. Quimby
Radiology Department
College of Physicians and Surgeons
Columbia University
630 West 168th Street
New York, New York 10032

Antolin Raventos School of Medicine University of California Davis, California 95616

William C. Roesch Consulting Radiological Physicist Battelle-Northwest P.O. Box 999 Richland, Washington 99352

Harald H. Rossi Radiological Research Lab Columbia University 630 West 168th Street New York, New York 10032

William L. Russell Oka Ridge National Laboratory Biology Division, P.O. Box Y Oak Ridge, Tennessee 37831

John H. Rust University of Chicago A.J. Carlson Animal Research Facility 950 East 59th Street Chicago, Illinois 60637

Eugene L. Saenger Radioisotope Laboratory Cincinnati General Hospital Cincinnati, Ohio 45229

Washington, D.C. 20008

James G. Terrill, Jr.
Westinghouse Electric Co.
Environmental Systems Dept.
P.O. Box 355
Pittsburgh, Pennsylvania 15230

massachusetts General Huspital Fruit Street Boston, Massachusetts 02114

Forrest Western
Director, Division of Radiological
Protection Standards
U.S. Atomic Energy Commission
Washington, D.C. 20545

Institute
Defense Atomic Support Agency
Bethesda, Maryland 20014

- 17 -