Committees on Biological Effects of Atomic Radiation, 1954-1964

The mission of the Committees on The Biological Effects of Atomic Radiation (BEAR) was to provide a thorough review of all that was known at the time about the effects of atomic radiation on living organisms. The Committees on BEAR had been put together in 1955 by then-NAS president Detlev Bronk in response to the increasing but uncoordinated accumulation of data on the effects of atomic radiation.

Six committees were formed to investigate various problems arising from the release or presence of radiation in the environment. These committees were: Pathologic Effects of Atomic Radiation (with various subcommittees); Meteorological Aspects of the Effects of Atomic Radiation; Effects of Atomic Radiation on Agriculture and Food Supplies; Disposal and Dispersal of Radioactive Wastes; and Oceanography and Fisheries. A number of reports, including two summary reports, the first released in 1956 and second released in 1960, were published by the various BEAR committees and subcommittees before the study was terminated in 1964.

The studies conducted by the Committees on BEAR did not overlap with the studies conducted by the Atomic Bomb Casualty Commission. The collection contains correspondence, reports, and meeting minutes, and cover the years 1954-1964 for a span of 6 linear feet. The collection is divided into two groups, one containing activity records, and the second containing reports.

INDEX TO COLLECTION

Record Group 1: Activity Records

ADMINISTRATION

COMMITTEES & BOARDS

- Committees on Biological Effects of Atomic Radiation
 - Agriculture & Food Supplies
 - Behavior of Radioactive Fallout in Soils & Plants: 1962-1963
 - Impact of Massive Radioactive Fallout on Production & Utilization of Agricultural Crops: 1962-1963
 - General: 1962-1964
 - Continuation of Program: 1962
 - Cooperation with Other Organizations
 - US Congress Joint Committee on Atomic Energy: 1962-1963
 - o Genetic: 1962-1964
 - Health Implications of Fallout from Nuclear Weapons Testing through 1961: 1962
 - Meetings
 - Chairmen of BEAR Committees: 1962
 - Meteorological: 1962-1964
 - Pathologic
 - Meetings
 - **1**963
 - Subcommittees
 - Hematology: 1962-1963
 - Inhalation Hazards: 1962-1964

Neuropathology: 1962-1965

■ Pathological Effects of Thyroid Irradiation

Report to FRC: 1962Requests for Support

Rockefeller Foundation: 1962

o Reports Distribution: 1962-1963

o General: 1962-1963

INSTITUTIONS – ASSOCIATIONS & INDIVIDUALS

1955-1963

INTERNATIONAL RELATIONS

• 1955-1960

ORGANIZATION

Activities of NAS & NRC

o Bearing on Effects of Atomic Radiation on Living Organisms: 1946-1955

Related to Basis & Use of Radiation Protection Criteria & Standards: 1960-1962

ORGANIZATION: NAS: COMMITTEES ON BIOLOGICAL EFFECTS ON ATOMIC RADIATION

Agriculture & Food Supplies

o Appointments: 1956

Behavior of Radioactive Fallout in Soils & Plants: 1956-1961

Impact of Massive Radioactive Fallout on Production & Utilization of Agricultural Crops:
 1959-1961

Meetings: 1956

o Summary Reports: 1956-1959

o General: 1956-1961

Beginning of Program: 1954-1955Comments & Inquiries: 1955-1960

Conference on Low-Level & Threshold Effects: 1959

• Continuation of Program: 1960-1961

Cooperation with Other Organizations

American College of Radiology: 1956-1958
 Atomic Energy Commission: 1956-1960

o Department of State: 1955-1957

Medical Research Council of Great Britain: 1955-1960

UN Scientific Committee on Effects of Atomic Radiation: 1956-1961

US Congress Joint Commission on Atomic Energy: 1957-1961

Disposal & Dispersal of Radioactive Wastes

o Appointments: 1955-1956

Meetings: 1956

Status Report on Disposal of Radioactive Wastes: 1957-1960

Subcommittee Reports: Economics of Waste Disposal & Dispersal: 1956

Issues Requiring Further Study: 1956

Magnitude of Problem with Growth of Industry: 1956

Present Status of Dispersal & Disposal of Radioactive Wastes: 1956

- Problem of Accidental Hazards: 1956
- o Proposals of Panel on Genetics on Limitations of Radiation Exposure: 1956
- Relation of Nature & Magnitude of Wastes to Fuel Processing & Types of Reactors: 1956
- Technological & Administrative Problems in Transport Use & Disposal of Radioisotopes:
 1956

Weapons Testing & Fallout: 1956Summary Reports: 1956-1959

o General: 1956-1961

• Effects of Strontium-90

o Articles: 1960

o Background Data: 1959

o Committee Proposed: 1956-1960

o General: 1956-1960

Executive Secretary: 1957-1960

Genetic

o Appointments: 1955

o Background Data: 1954-1957

Laughlin-Pullman Report: 1955-1957

o Meetings: 1955-1957

o Statement on Needed Research: 1956-1959

Summary Reports: 1956-1959

o General: 1955-1961

Meetings

Chairmen of BEAR Committees: 1957-1960

Meteorological

Analysis of Average Balloon-Borne Radioactivity

Measurements: 1960Appointments: 1956Meetings: 1956

Summary Reports: 1956-1959

General: 1956-1961Oceanography & Fisheries

Appointments: 1956

Cooperation with NRC Com on Oceanography: 1958-1961

o Effects of Atomic Radiation on Oceanography & Fisheries: 1956-1958

Meetings: 1956

o Summary Reports: 1956-1960

General: 1956-1961Offers of Assistance: 1955

Pathologic

o Commentary on Report of UN Scientific Committee on Atomic Radiation: 1958-1959

o Meetings: 1955-1959

Subcommittees

Hematology: 1955-1961Inhalation Hazards: 1956-1961Internal Emitters: 1955-1961

Ionizing Radiation from External Sources: 1956-1961

■ Neuropathology: 1960-1961

o Summary Reports: 1956-1959

o General: 1956-1961

Reports

Background Data: 1943-1956
 Distribution: 1956-1961

o General: 1956-1958

Requests for Support

o Rockefeller Foundation: 1955-1961

• Research Program Proposed: 1957

Summary ReportsReview: 1960

• General: 1955-1961

PUBLIC RELATIONS

Press Conferences: 1956-1960Press Releases: 1955-1960

• General: 1955-1962

PUBLICATIONS

Pediatrics

o Supplement on Radiation Hazards: 1957

• General: 1955-1962

FINANCE & ACCOUNTING

FINANCE

• Funds: Grants

o Rockefeller Foundation: 1955-1962

GOVERNMENT

AGENCIES & DEPARTMENTS

• 1954-1960

CONGRESS

Committees

Atomic Energy

Joint: 1957-1963

• General: 1957-1959

EXECUTIVE

• 1959-1963

FOREIGN GOVERNMENTS

• 1956-1959

INTERNATIONAL RELATIONS

United Nations: 1956-1961

Record Group 2: Reports

ADMINSTRATION

COMMITTEES & BOARDS

- Committees on Biological Effects of Atomic Radiation
 - Agriculture & Food Supplies
 - Behavior of Radioactive Fallout in Soils & Plants: 1963
 - Continuation of Program: 1962
 - o Pathologic
 - Subcommittee on Hematology Summary Report: 1963
 - Pathological Effects of Thyroid Irradiation
 - Report to Federal Radiation Council: 1962

INSTITUTIONS – ASSOCIATIONS & INDIVIDUALS

- American College of Radiology
 - Practical Manual on Medical & Dental Use of X-Rays with Control of Radiation Hazards:
 1958

INTERNATIONAL RELATIONS

- Academies & Councils Abroad
 - Medical Research Council of Great Britain Statement on Report of UN Scientific Committee on Effects of Atomic Radiation: 1958
- Institutions Associations Individuals Abroad
 - Atomic Scientists Assoc of Great Britain Statement on Strontium Hazards: 1957
 - International Commission on Radiological Protection Report: 1960
 - International Commission on Radiological Units & Measurement: Report: 1960

ORGANIZATION: NAS: COMMITTEES ON BIOLOGICAL EFFECTS ON ATOMIC RADIATION

- Disposal & Dispersal of Radioactive Wastes
 - Disposal of Radioactive Wastes: Status Report: 1958
- Genetic Effects
 - Physical Properties of Ionizing Radiation: 1956
 - Section II: Gonadal Dose Received from Natural Background Radiation: 1957
 - Section III: Gonadal Dose from Medical Use of X-Rays: 1957
- Oceanography & Fisheries
 - Effects of Atomic Radiation on Oceanography & Fisheries: 1957
 - o Radioactive Waste Disposal from Nuclear-Powered Ships: 1959
- Pathologic Effects
 - Commentary on Report of UN Scientific Committee on Atomic Radiation: 1959
 - Pathological Effects of Thyroid Irradiation: 1962
 - Subcommittees
 - Hematology Report: 1961
 - Inhalation Hazards Report: 1961

Internal Emitters Report: 1961

Ionizing Radiation from External Sources Report: 1961

Summary Report: Pathological Effects of Atomic Radiation: 1956

• Summary Reports: Biological Effects of Atomic Radiation

Report to Public: 1956; 1960Summary Report: 1956; 1960

GOVERNMENT

AGENCIES & DEPARTMENTS

- Agriculture
 - Defense Against Fallout on Farm: 1956
- Atomic Energy Commission
 - Analysis of Stratospheric Strontium-90 Measurements: 1959
 - Annotated Bibliography on Transport & Disposition of Atomic Debris: 1956
 - AEC Atmospheric Radioactivity Studies: 1959
 - Effects of Nuclear Weapons Testing: 1955
 - Evaluation of Ground-Level Sampling Program: 1958
 - o Latest Stratospheric Fallout Results Particularly on Russian October Series: 1959
 - Naturally Occurring Radioactive Substances & Radiation Doses: 1954
 - o Radioactive Contamination of Certain Areas in Pacific Ocean from Nuclear Testing: 1957
 - Relationship between Geologic Environment & Mortality from Congenital Malformation:
 1959
 - o Statements: 1955-1959
 - Stratospheric Radioactivity Measurements: 1959
 - US Sea Disposal Operations: 1957
- Commerce
 - o Radioactive Waste Disposal in Ocean: 1954

EXECUTIVE

- Federal Radiation Council
 - Background Material for Development of Radiation Protection Standards: 1960-1961
 - Estimates & Evaluation of Fallout in US from Nuclear Weapons Testing Conducted through 1962-1963
 - Health Implications of Fallout from Nuclear Weapons Testing through 1961-1962

FOREIGN GOVERNMENTS

- Great Britain: Atomic Energy Research Establishment
 - Radiological Dose to Persons in UK Due to Debris from Nuclear Test Explosions Prior to Jan 1958; 1956

INTERNATIONAL RELATIONS

- UN Scientific Committee on Effects of Atomic Radiation
 - o Effects of Atomic Radiation: 1958
 - Report of US Delegation: 1957
- UN World Health Organization
 - o Effects of Radiation on Human Heredity: 1957